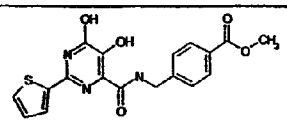
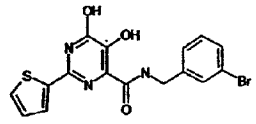
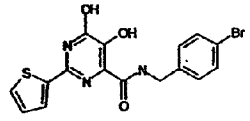
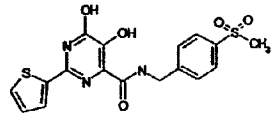
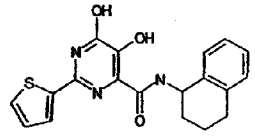
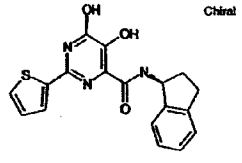
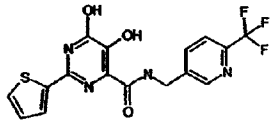
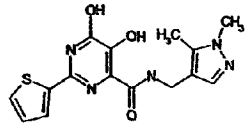
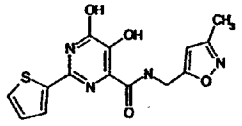
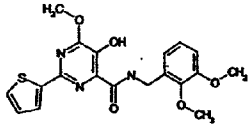
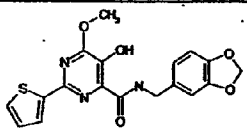
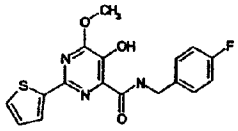
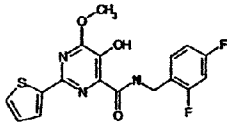
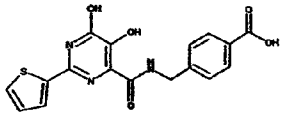
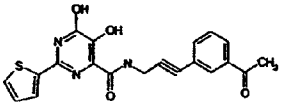
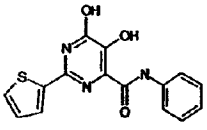
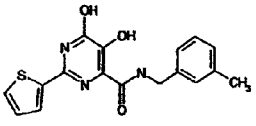
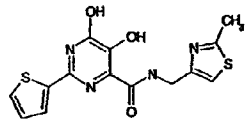
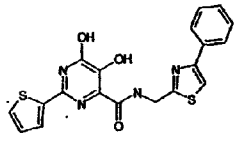
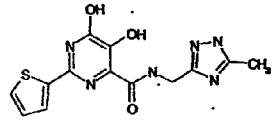
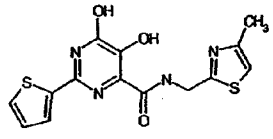
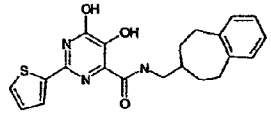
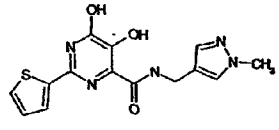
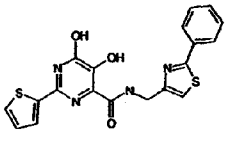
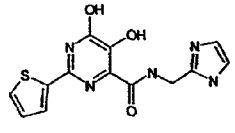
598

105		methyl 4-({[(5,6-dihydroxy-2-thien-2-ylpyrimidin-4-yl)carbonyl]amino}methyl)benzoate	386	A
106		N-(3-bromobenzyl)-5,6-dihydroxy-2 thien-2-ylpyrimidine-4-carboxamide	407	A
107		N-(4-bromobenzyl)-5,6-dihydroxy-2 thien-2-ylpyrimidine-4-carboxamide	407	A
108		5,6-dihydroxy-N-[4-(methylsulfonyl)benzyl]-2-thien-2-ylpyrimidine-4-carboxamide	406	A
109		5,6-dihydroxy-N-(1,2,3,4-tetrahydronaphthalen-1-yl)-2-thien-2-ylpyrimidine-4-carboxamide	368	A
110		N-[(1S)-2,3-dihydro-1H-inden-1-yl]-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	354	A
111		5,6-dihydroxy-2-thien-2-yl-N-{[6-(trifluoromethyl)pyridin-3-yl]methyl}pyrimidine-4-carboxamide (HCl salt)	397	A
112		N-[(1,5-dimethyl-1H-pyrazol-4-yl)methyl]-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	346	A

599

113		5,6-dihydroxy-N-[(3-methylisoxazol-5-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide	333	A
114		N-(2,3-dimethoxybenzyl)-5-hydroxy-6-methoxy-2-thien-2-ylpyrimidine-4-carboxamide	402	A
115		N-(1,3-benzodioxol-5-ylmethyl)-5-hydroxy-6-methoxy-2-thien-2-ylpyrimidine-4-carboxamide	386	A
116		N-(4-fluorobenzyl)-5-hydroxy-6-methoxy-2-thien-2-ylpyrimidine-4-carboxamide	360	A
117		N-(2,4-difluorobenzyl)-5-hydroxy-6-methoxy-2-thien-2-ylpyrimidine-4-carboxamide	378	A
118		4-({[(5,6-dihydroxy-2-thien-2-ylpyrimidin-4-yl)carbonyl]amino}methyl)benzoic acid	372	A
119		N-[3-(3-acetylphenyl)prop-2-ynyl]-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	394	A
120		5,6-dihydroxy-N-phenyl-2-thien-2-ylpyrimidine-4-carboxamide	314	A
121		5,6-dihydroxy-N-(3-methylbenzyl)-2-thien-2-ylpyrimidine-4-carboxamide	342	A

600

122		5,6-dihydroxy-N-[(2-methyl-1,3-thiazol-4-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide (HCl salt)	349	A
123		5,6-dihydroxy-N-[(4-phenyl-1,3-thiazol-2-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide (HCl salt)	411	A
124		5,6-dihydroxy-N-[(5-methyl-1H-1,2,4-triazol-3-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide (HCl salt)	333	A
125		5,6-dihydroxy-N-[(4-methyl-1,3-thiazol-2-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide (HCl salt)	349	A
126		5,6-dihydroxy-N-(6,7,8,9-tetrahydro-5H-benzo[7]annulen-7-ylmethyl)-2-thien-2-ylpyrimidine-4-carboxamide	396	A
127		5,6-dihydroxy-N-[(1-methyl-1H-pyrazol-4-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide (TFA salt)	332	A
128		5,6-dihydroxy-N-[(2-phenyl-1,3-thiazol-4-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide (TFA salt)	411	A
129		5,6-dihydroxy-N-(1H-imidazol-2-ylmethyl)-2-thien-2-ylpyrimidine-4-carboxamide (TFA salt)	318	A

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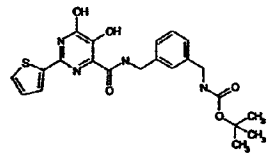
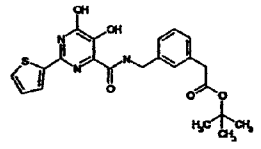
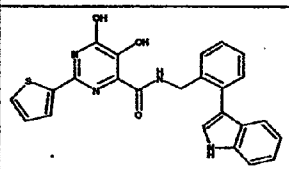
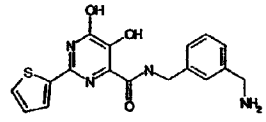
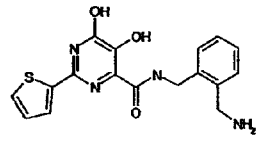
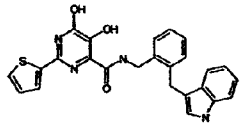
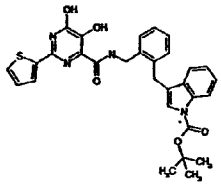
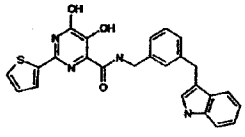
130		tert-butyl 3-({[(5,6-dihydroxy-2-thien-2-ylpyrimidin-4-yl)carbonyl]amino}methyl)benzylcarbamate	457	A
131		tert-butyl [3-({[(5,6-dihydroxy-2-thien-2-ylpyrimidin-4-yl)carbonyl]amino}methyl)phenyl]acetate	442	A
132		5,6-dihydroxy-N-[2-(1H-indol-3-yl)benzyl]-2-thien-2-ylpyrimidine-4-carboxamide	443	A
133		N-[3-(aminomethyl)benzyl]-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide (TFA salt)	357	A
134		N-[2-(aminomethyl)benzyl]-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	357	A
135		5,6-dihydroxy-N-[2-(1H-indol-3-ylmethyl)benzyl]-2-thien-2-ylpyrimidine-4-carboxamide	457	A
136		tert-butyl 3-[2-({[(5,6-dihydroxy-2-thien-2-ylpyrimidin-4-yl)carbonyl]amino}methyl)benzyl]-1H-indole-1-carboxylate	557	A
137		5,6-dihydroxy-N-[3-(1H-indol-3-ylmethyl)benzyl]-2-thien-2-ylpyrimidine-4-carboxamide	457	A

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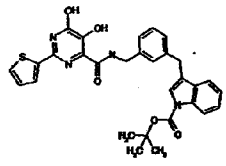
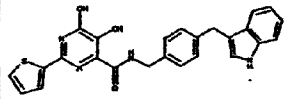
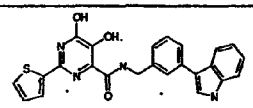
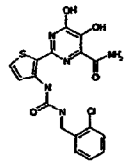
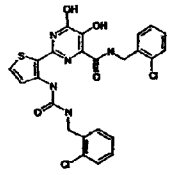
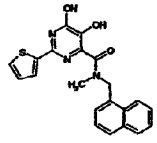
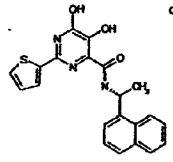
138		tert-butyl 3-[3-({[(5,6-dihydroxy-2-thien-2-ylpyrimidin-4-yl)carbonyl]amino}methyl)benzyl]-1H-indole-1-carboxylate	557	A
139		5,6-dihydroxy-N-[4-(1H-indol-3-ylmethyl)benzyl]-2-thien-2-ylpyrimidine-4-carboxamide	457	A
140		5,6-dihydroxy-N-[3-(1H-indol-3-yl)benzyl]-2-thien-2-ylpyrimidine-4-carboxamide	443	A
141		2-[3-({[(2-chlorobenzyl)amino]carbonyl}amino)thien-2-yl]-5,6-dihydroxypyrimidine-4-carboxamide	420	A
142		N-(2-chlorobenzyl)-2-[3-({[(2-chlorobenzyl)amino]carbonyl}amino)thien-2-yl]-5,6-dihydroxypyrimidine-4-carboxamide	42(M-1	A
143		5,6-dihydroxy-N-methyl-N-(1-naphthylmethyl)-2-thien-2-ylpyrimidine-4-carboxamide	392	A
144		5,6-dihydroxy-N-[(1R)-1-(1-naphthyl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	392	A

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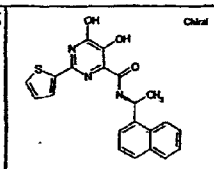
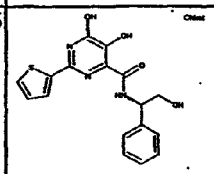
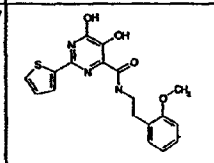
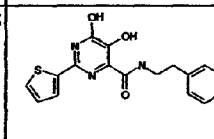
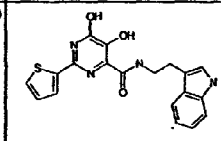
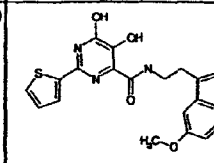
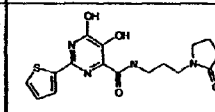
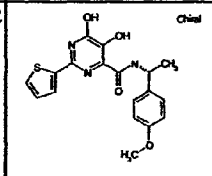
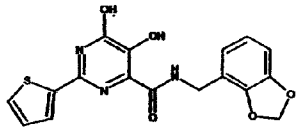
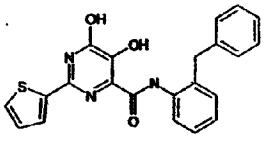
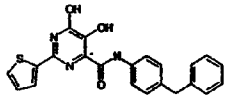
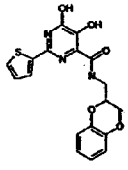
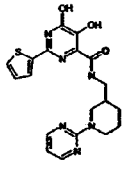
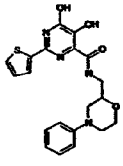
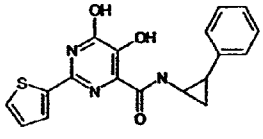
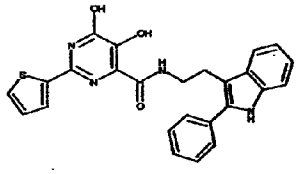
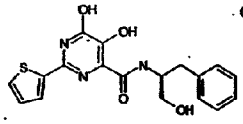
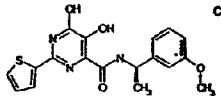
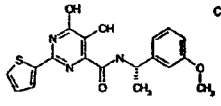
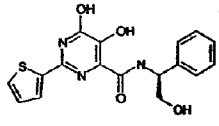
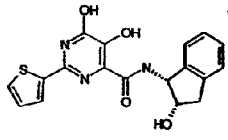
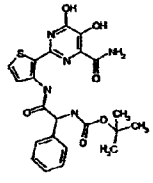
145		5,6-dihydroxy-N-[(1S)-1-(1-naphthyl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	392	A
146		5,6-dihydroxy-N-[(1R)-2-hydroxy-1-phenylethyl]-2-thien-2-ylpyrimidine-4-carboxamide	358	A
147		5,6-dihydroxy-N-[2-(2-methoxyphenyl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	372	A
148		5,6-dihydroxy-N-[2-(4-nitrophenyl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	387	A
149		5,6-dihydroxy-N-[2-(1H-indol-3-yl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	381	A
150		5,6-dihydroxy-N-[2-(5-methoxy-1H-indol-3-yl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	411	A
151		5,6-dihydroxy-N-[3-(2-oxopyrrolidin-1-yl)propyl]-2-thien-2-ylpyrimidine-4-carboxamide	363	A
152		5,6-dihydroxy-N-[(1R)-1-(4-methoxyphenyl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	372	A

604

153		N-(1,3-benzodioxol-4-ylmethyl)-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	372	A
154		N-(2-benzylphenyl)-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	404	A
155		N-(4-benzylphenyl)-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	404	A
156		N-(2,3-dihydro-1,4-benzodioxin-2-ylmethyl)-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	386	A
157		5,6-dihydroxy-N-[(1-pyrimidin-2-ylpiperidin-3-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide (TFA salt)	413	A
158		5,6-dihydroxy-N-[(4-phenylmorpholin-2-yl)methyl]-2-thien-2-ylpyrimidine-4-carboxamide (TFA salt)	413	A
159		5,6-dihydroxy-N-(2-phenylcyclopropyl)-2-thien-2-ylpyrimidine-4-carboxamide	354	A

605

160		5,6-dihydroxy-N-[2-(2-phenyl-1H-indol-3-yl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	457	A
161	 Chiral	N-[(1S)-1-benzyl-2-hydroxyethyl]-5,6-dihydroxy-2-thien-2-ylpyrimidine-4-carboxamide	372	A
162	 Chiral	5,6-dihydroxy-N-[(1R)-1-(3-methoxyphenyl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	372	A
163	 Chiral	5,6-dihydroxy-N-[(1S)-1-(3-methoxyphenyl)ethyl]-2-thien-2-ylpyrimidine-4-carboxamide	372	A
164	 Chiral	5,6-dihydroxy-N-[(1S)-2-hydroxy-1-phenylethyl]-2-thien-2-ylpyrimidine-4-carboxamide	358	A
165	 Chiral	5,6-dihydroxy-N-[(1R,2S)-2-hydroxy-2,3-dihydro-1H-inden-1-yl]2-thien-2-ylpyrimidine-4-carboxamide	370	A
166		tert-butyl 2-({2-[4-(aminocarbonyl)-5,6-dihydroxypyrimidin-2-yl]thien-3-yl}amino)-2-oxo-1-phenylethylcarbamate	486	A

606

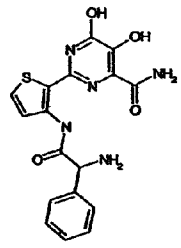
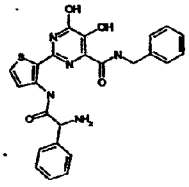
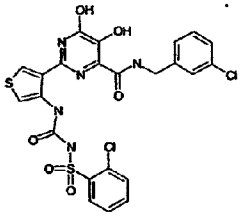
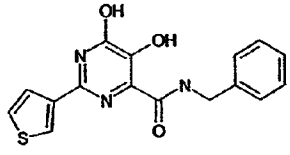
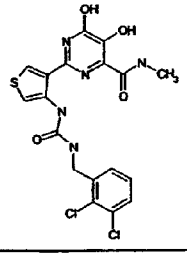
167		2-(3-{[amino(phenyl)acetyl]amino}thien-2-yl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	386	A
168		2-(3-{[amino(phenyl)acetyl]amino}thien-2-yl)-N-benzyl-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	476	A

Table 2

1		N-(3-chlorobenzyl)-2-{4-[({[(2-chlorophenyl)sulfonyl]amino}carbonyl)amino]thien-3-yl}-5,6-dihydroxypyrimidine-4-carboxamide	594	G
2		N-benzyl-5,6-dihydroxy-2-thien-3-ylpyrimidine-4-carboxamide	328	A
3		2-[4-({[(2,3-dichlorobenzyl)amino]carbonyl}amino)thien-3-yl]-5,6-dihydroxy-N-methylpyrimidine-4-carboxamide	468	G

607

4		2-{4-[({[(2-chlorophenyl)sulfonyl]amino}carbonyl)amino]thien-3-yl}-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	620	G
5		N-benzyl-2-(4-{[(benzylamino)carbonyl]amino}-3-thienyl)-5,6-dihydroxy-4-pyrimidinecarboxamide	476	G
6		2-{4-[({[(2-chlorophenyl)sulfonyl]amino}carbonyl)amino]thien-3-yl}-5,6-dihydroxy-N-(2-phenylethyl)pyrimidine-4-carboxamide	574	G
7		2-{4-[({[(2-chlorophenyl)sulfonyl]amino}carbonyl)amino]thien-3-yl}-5,6-dihydroxy-N-methylpyrimidine-4-carboxamide	484	G
8		N-benzyl-5,6-dihydroxy-2-[4-({[(thien-2-ylmethyl)amino]carbonyl}amino)thien-3-yl]pyrimidine-4-carboxamide	482	G

608

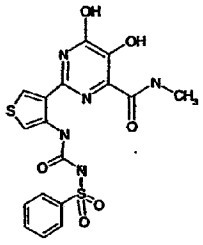
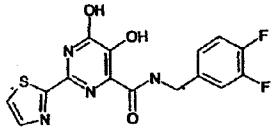
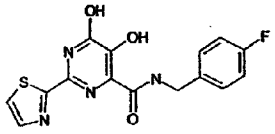
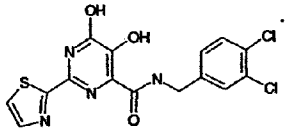
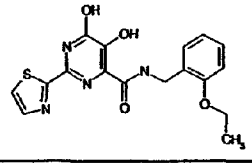
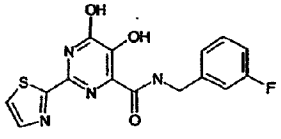
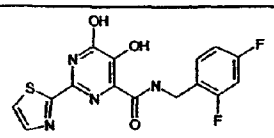
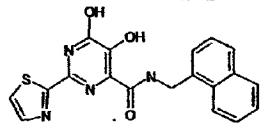
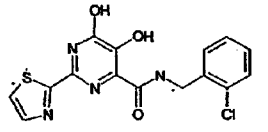
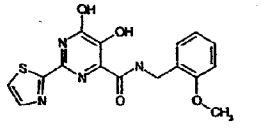
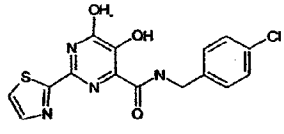
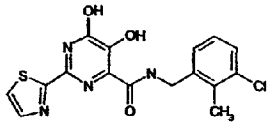
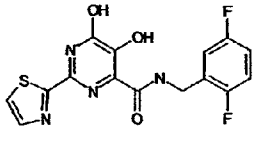
9		5,6-dihydroxy-N-methyl-2-[4-({[(phenylsulfonyl)amino]carbonyl}amino)thien-3-yl]pyrimidine-4-carboxamide	450	G

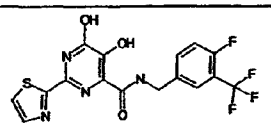
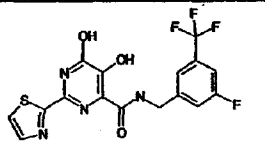
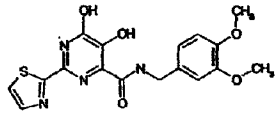
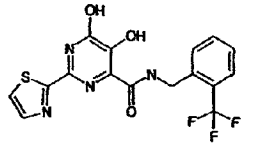
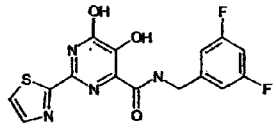
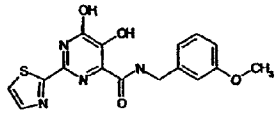
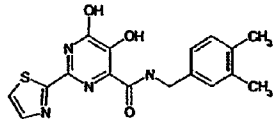
Table 3

1		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	365	A
2		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	347	A
3		N-(3,4-dichlorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	397	A
4		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	373	A
5		N-(3-fluorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	347	A

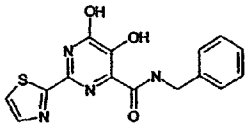
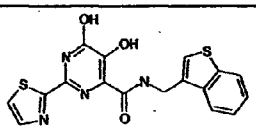
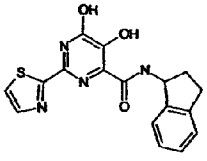
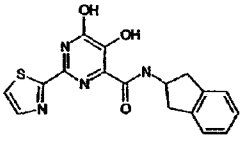
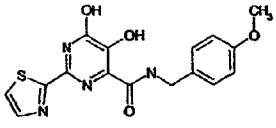
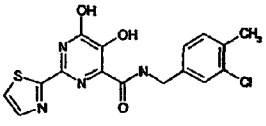
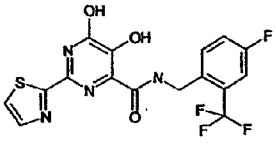
609

6		N-(2,4-difluorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	365	A
7		5,6-dihydroxy-N-(1-naphthylmethyl)-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	379	A
8		N-(2-chlorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	363	A
9		5,6-dihydroxy-N-(2-methoxybenzyl)-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	359	A
10		N-(4-chlorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	363	A
11		N-(3-chloro-2-methylbenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	377	A
12		N-(2,5-difluorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	365	A

610

13		N-[4-fluoro-3-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	415	A
14		N-[3-fluoro-5-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	415	A
15		N-(3,4-dimethoxybenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	389	A
16		5,6-dihydroxy-2-(1,3-thiazol-2-yl)-N-[2-(trifluoromethyl)benzyl]pyrimidine-4-carboxamide	397	A
17		N-(3,5-difluorobenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	365	A
18		5,6-dihydroxy-N-(3-methoxybenzyl)2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	359	A
19		N-(3,4-dimethylbenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	357	A

611

20		N-benzyl-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	329	A
21		N-(1-benzothien-3-ylmethyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	385	A
22		N-(2,3-dihydro-1H-inden-1-yl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	355	A
23		N-(2,3-dihydro-1H-inden-2-yl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	355	A
24		5,6-dihydroxy-N-(4-methoxybenzyl)-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	359	A
25		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	377	A
26		N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	415	A

612

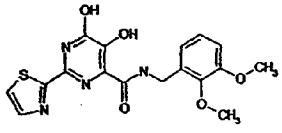
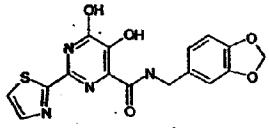
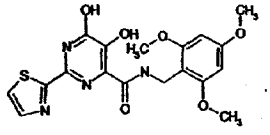
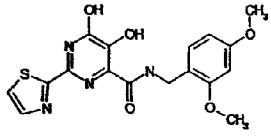
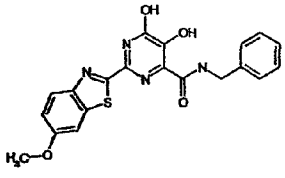
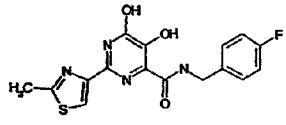
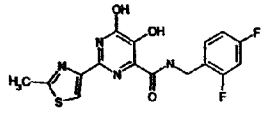
27		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	389	A
28		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	373	A
29		5,6-dihydroxy-2-(1,3-thiazol-2-yl)-N-(2,4,6-trimethoxybenzyl)pyrimidine-4-carboxamide	419	A
30		N-(2,4-dimethoxybenzyl)-5,6-dihydroxy-2-(1,3-thiazol-2-yl)pyrimidine-4-carboxamide	389	A
31		N-benzyl-5,6-dihydroxy-2-(6-methoxy-1,3-benzothiazol-2-yl)pyrimidine-4-carboxamide	409	A

Table 4

1		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(2-methyl-1,3-thiazol-4-yl)pyrimidine-4-carboxamide	361	A
2		N-(2,4-difluorobenzyl)-5,6-dihydroxy-2-(2-methyl-1,3-thiazol-4-yl)pyrimidine-4-carboxamide	379	A

613

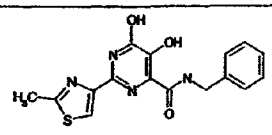
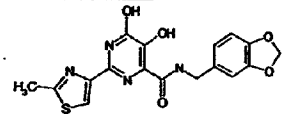
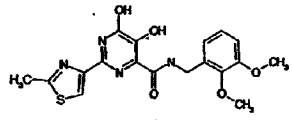
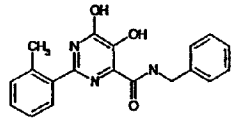
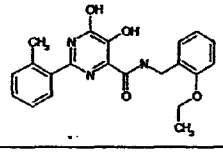
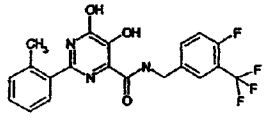
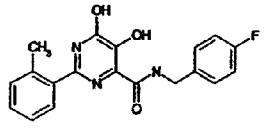
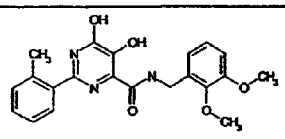
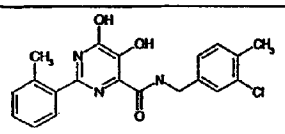
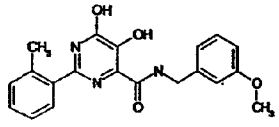
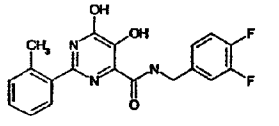
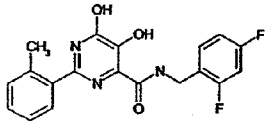
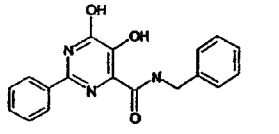
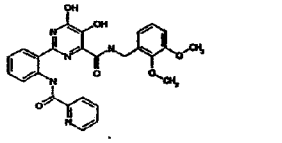
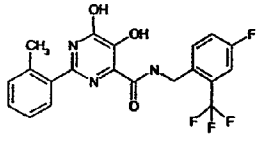
3		N-benzyl-5,6-dihydroxy-2-(2-methyl-1,3-thiazol-4-yl)pyrimidine-4-carboxamide	343	A
4		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-(2-methyl-1,3-thiazol-4-yl)pyrimidine-4-carboxamide	387	A
5		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(2-methyl-1,3-thiazol-4-yl)pyrimidine-4-carboxamide	403	A

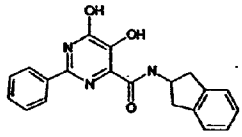
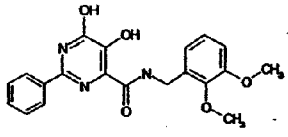
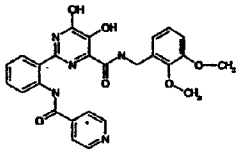
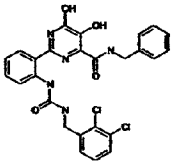
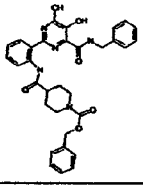
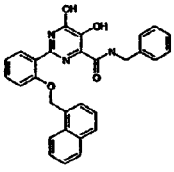
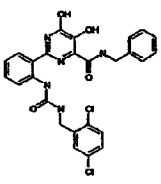
Table 5

1		N-benzyl-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	336	A
2		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	380	A
3		N-[4-fluoro-3-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	422	A
4		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	354	A

614

5		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	396	A
6		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	384	A
7		5,6-dihydroxy-N-(3-methoxybenzyl)2-(2-methylphenyl)pyrimidine-4-carboxamide	366	A
8		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	372	A
9		N-(2,4-difluorobenzyl)-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	372	A
10		N-benzyl-5,6-dihydroxy-2-phenylpyrimidine-4-carboxamide	322	A
11		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-{2-[(pyridin-2-ylcarbonyl)amino]phenyl}pyrimidine-4-carboxamide	502	I
12		N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-(2-methylphenyl)pyrimidine-4-carboxamide	422	A

615

13		N-(2,3-dihydro-1H-inden-2-yl)-5,6-dihydroxy-2-phenylpyrimidine-4-carboxamide	348	A
14		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-phenylpyrimidine-4-carboxamide	382	A
15		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[2-(isonicotinoylamino) phenyl]pyrimidine-4-carboxamide (HCL salt)	502	I
16		N-benzyl-2-[2-({[(2,3-dichlorobenzyl)amino]carbonyl}amino)phenyl]-5,6-dihydroxypyrimidine-4-carboxamide	538	G
17		benzyl 4-{[(2-{4-[(benzylamino)carbonyl]-5,6-dihydroxypyrimidin-2-yl}phenyl)amino]carbonyl}piperidine-1-carboxylate	582	I
18		N-benzyl-5,6-dihydroxy-2-[2-(1-naphthylmethoxy)phenyl]pyrimidine-4-carboxamide	478	A
19		N-benzyl-2-[2-({[(2,5-dichlorobenzyl)amino]carbonyl}amino)phenyl]-5,6-dihydroxypyrimidine-4-carboxamide	538	G

616

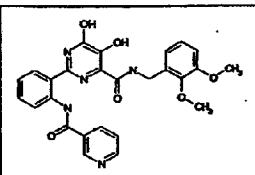
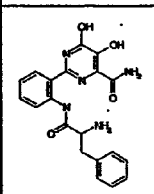
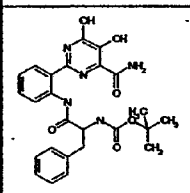
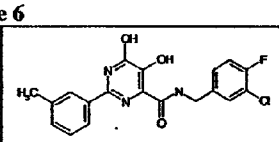
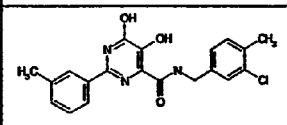
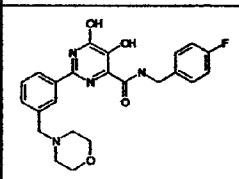
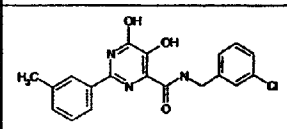
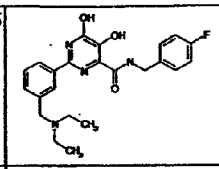
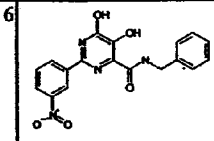
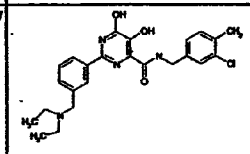
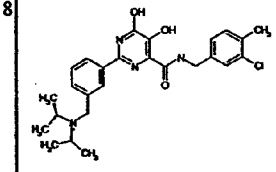
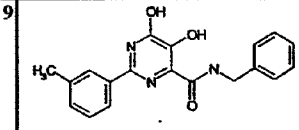
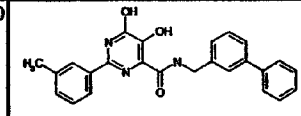
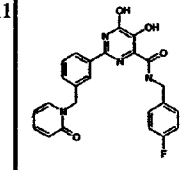
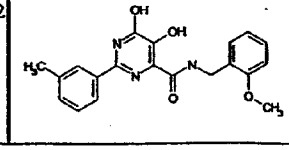
20		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-{2-[(pyridin-3-ylcarbonyl)amino]phenyl}pyrimidine-4-carboxamide (TFA salt)	502	I
21		N-{2-[4-(aminocarbonyl)-5,6-dihydroxypyrimidin-2-yl]phenyl}phenylalaninamide (TFA salt)	394	A*
22		tert-butyl 3-({3-[4-(aminocarbonyl)-5,6-dihydroxypyrimidin-2-yl]phenyl}amino)-3-oxo-1-phenylprop-2-ylcarbamate	494.2	I

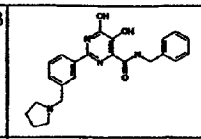
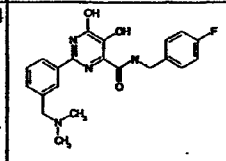
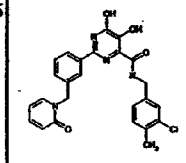
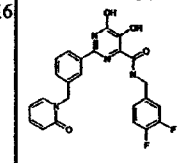
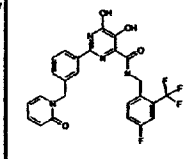
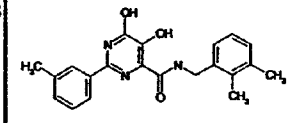
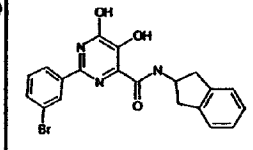
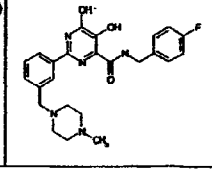
Table 6

1		N-(3-chloro-4-fluorobenzyl)-5,6-dihydroxy-2-(3-methylphenyl)pyrimidine-4-carboxamide	388	A
2		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-(3-methylphenyl)pyrimidine-4-carboxamide	384	A
3		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[3-(morpholin-4-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	439	B
4		N-(3-chlorobenzyl)-5,6-dihydroxy-2-(3-methylphenyl)pyrimidine-4-carboxamide	370	A

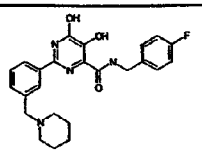
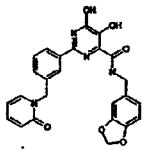
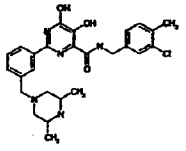
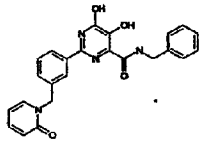
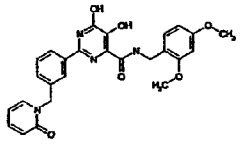
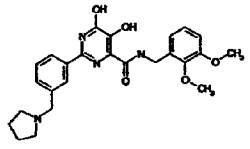
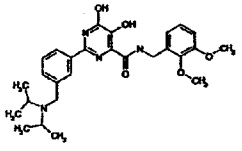
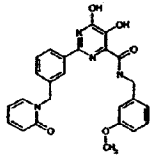
617

5		2-{3-[(diethylamino)methyl]phenyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	425	B
6		N-benzyl-5,6-dihydroxy-2-(3-nitrophenyl)pyrimidine-4-carboxamide	367	A
7		N-(3-chloro-4-methylbenzyl)-2-{3-[(diethylamino)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (HCl salt)	455	B
8		N-(3-chloro-4-methylbenzyl)-2-{3-[(diisopropylamino)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (HCl salt)	483	B
9		N-benzyl-5,6-dihydroxy-2-(3-methylphenyl)pyrimidine-4-carboxamide	336	A
10		N-(1,1'-biphenyl-3-ylmethyl)-5,6-dihydroxy-2-(3-methylphenyl)pyrimidine-4-carboxamide	412	A
11		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	447	A
12		5,6-dihydroxy-N-(2-methoxybenzyl)-2-(3-methylphenyl)pyrimidine-4-carboxamide	366	A

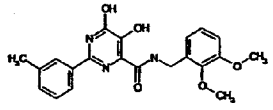
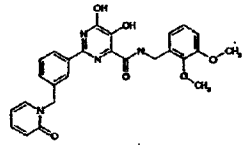
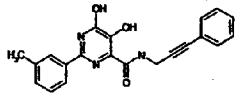
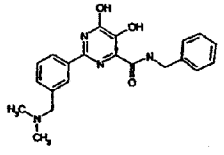
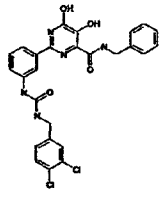
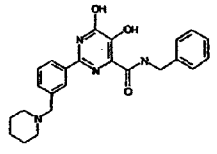
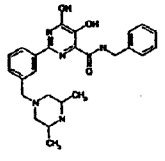
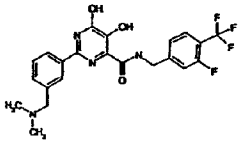
618

13		N-benzyl-5,6-dihydroxy-2-[3-(pyrrolidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (HCl salt)	405	B
14		2-{3-[(dimethylamino)methyl]phenyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	397	B
15		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	477	A
16		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	465	A
17		N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	515	A
18		N-(2,3-dimethylbenzyl)-5,6-dihydroxy-2-(3-methylphenyl)pyrimidine-4-carboxamide	364	A
19		2-(3-bromophenyl)-N-(2,3-dihydro-1H-inden-2-yl)-5,6-dihydroxypyrimidine-4-carboxamide	426	A
20		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{3-[(4-methylpiperazin-1-yl)methyl]phenyl}pyrimidine-4-carboxamide (TFA salt)	452	B

619

21		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[3-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	437	B
22		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	473	A
23		N-(3-chloro-4-methylbenzyl)-2-{3-[(3,5-dimethylpiperazin-1-yl)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	496	B
24		N-benzyl-5,6-dihydroxy-2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	429	A
25		N-(2,4-dimethoxybenzyl)-5,6-dihydroxy-2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	489	A
26		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[3-(pyrrolidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	465	B
27		2-{3-[(diisopropylamino)methyl]phenyl}-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	495	B
28		5,6-dihydroxy-N-(3-methoxybenzyl)2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	459	A

620

29		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(3-methylphenyl)pyrimidine-4-carboxamide	396	A
30		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-{3-[(2-oxopyridin-1(2H)-yl)methyl]phenyl}pyrimidine-4-carboxamide	489	A
31		5,6-dihydroxy-2-(3-methylphenyl)-N-(3-phenylprop-2-ynyl)pyrimidine-4-carboxamide	360	A
32		N-benzyl-2-{3-[(dimethylamino)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	379	B
33		N-benzyl-2-[3-({[(3,4-dichlorobenzyl)amino]carbonyl}amino)phenyl]-5,6-dihydroxypyrimidine-4-carboxamide	539	G
34		N-benzyl-5,6-dihydroxy-2-[3-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	419	B
35		N-benzyl-2-{3-[(3,5-dimethylpiperazin-1-yl)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	448	B
36		2-{3-[(dimethylamino)methyl]phenyl}-N-[3-fluoro-4-(trifluoromethyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	465	B

621

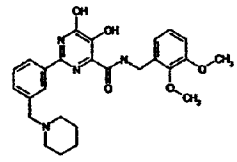
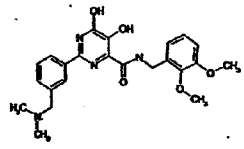
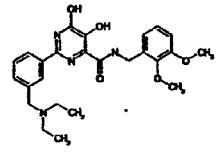
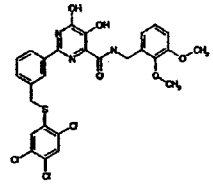
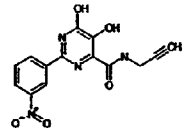
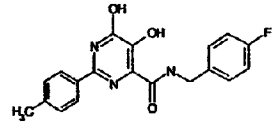
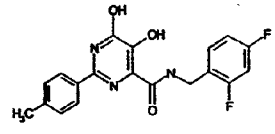
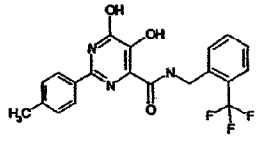
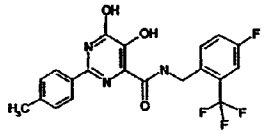
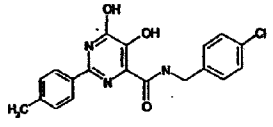
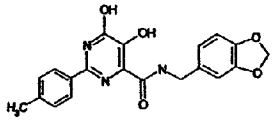
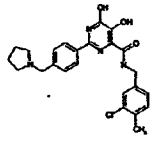
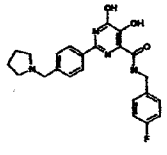
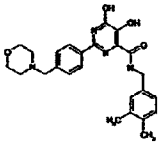
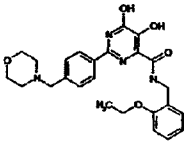
37		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[3-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	479	B
38		N-(2,3-dimethoxybenzyl)-2-{3-[(dimethylamino)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	439	B
39		2-{3-[(diethylamino)methyl]phenyl}N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	467	B
40		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(3-{[(2,4,5-trichlorophenyl)thio]methyl}phenyl)pyrimidine-4-carboxamide	607	B
41		5,6-dihydroxy-2-(3-nitrophenyl)-N-prop-2-ynylpyrimidine-4-carboxamide	315	A

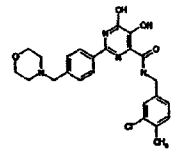
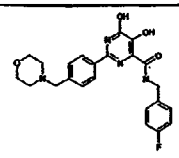
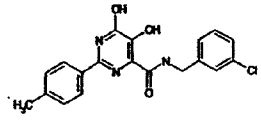
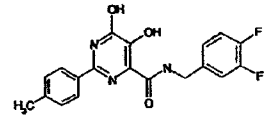
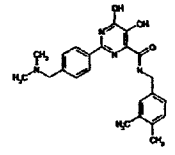
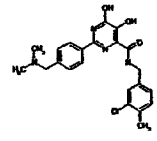
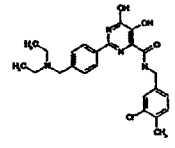
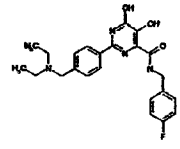
Table 7

1		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	354	A
2		N-(2,4-difluorobenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	372	A

622

3		5,6-dihydroxy-2-(4-methylphenyl)-N-[2-(trifluoromethyl)benzyl]pyrimidine-4-carboxamide	404	A
4		N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	422	A
5		N-(4-chlorobenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	370	A
6		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	380	A
7		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-[4-(pyrrolidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	453	B
8		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-(pyrrolidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	423	B
9		N-(3,4-dimethylbenzyl)-5,6-dihydroxy-2-[4-(morpholin-4-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	449	B
10		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-[4-(morpholin-4-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	465	B

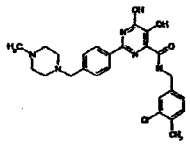
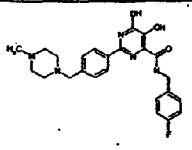
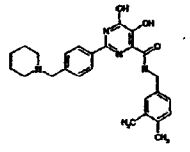
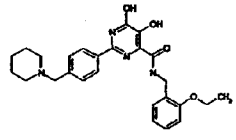
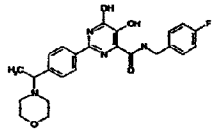
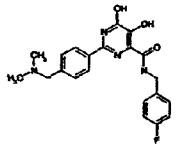
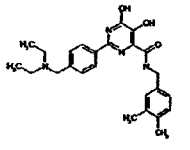
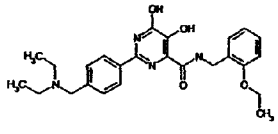
623

11		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-[4-(morpholin-4-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	469	B
12		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-(morpholin-4-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	439	B
13		N-(3-chlorobenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	370	A
14		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	372	A
15		2-{4-[(dimethylamino)methyl]phenyl}-N-(3,4-dimethylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	407	B
16		N-(3-chloro-4-methylbenzyl)-2-{4-[(dimethylamino)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	427	B
17		N-(3-chloro-4-methylbenzyl)-2-{4-[(diethylamino)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	455	B
18		2-{4-[(diethylamino)methyl]phenyl}N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	425	B

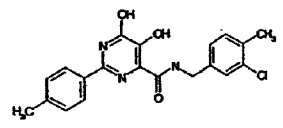
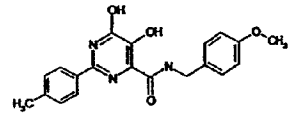
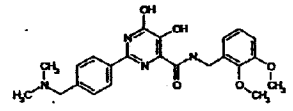
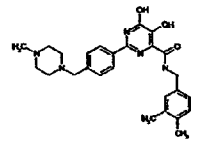
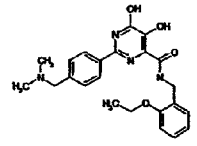
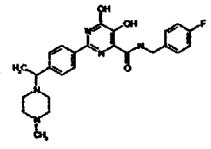
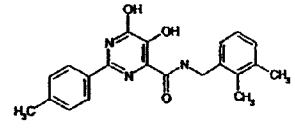
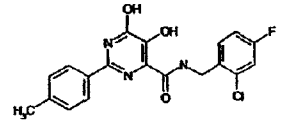
624

19		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-[4-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	467	B
20		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	437	B
21		N-(1,1'-biphenyl-3-ylmethyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	412	A
22		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[4-(morpholin-4-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	481	B
23		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	380	A
24		N-[4-fluoro-3-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	422	A
25		5,6-dihydroxy-N-(3-methoxybenzyl)-2-(4-methylphenyl)pyrimidine-4-carboxamide	366	A
26		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-{4-[(4-methylpiperazin-1-yl)methyl]phenyl}pyrimidine-4-carboxamide (TFA salt)	478	B

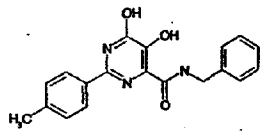
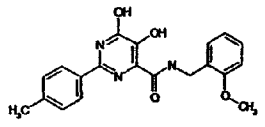
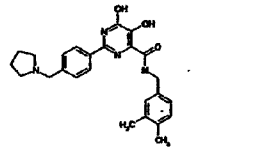
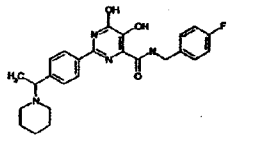
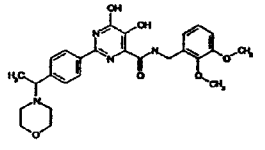
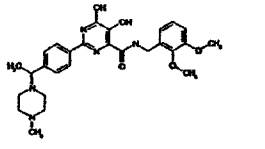
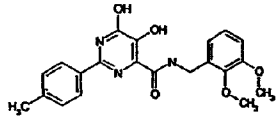
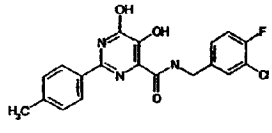
625

27		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-{4-[(4-methylpiperazin-1-yl)methyl]phenyl}pyrimidine-4-carboxamide (TFA salt)	482	B
28		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{4-[(4-methylpiperazin-1-yl)methyl]phenyl}pyrimidine-4-carboxamide (TFA salt)	452	B
29		N-(3,4-dimethylbenzyl)-5,6-dihydroxy-2-[4-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	447	B
30		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-[4-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	463	B
31		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-(1-morpholin-4-ylethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	453	B
32		2-{4-[(dimethylamino)methyl]phenyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	397	B
33		2-{4-[(diethylamino)methyl]phenyl}N-(3,4-dimethylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	435	B
34		2-{4-[(diethylamino)methyl]phenyl}N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	451	B

626

35		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	384	A
36		5,6-dihydroxy-N-(4-methoxybenzyl)2-(4-methylphenyl)pyrimidine-4-carboxamide	366	A
37		N-(2,3-dimethoxybenzyl)-2-{4-[(dimethylamino)methyl]phenyl}-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	439	B
38		N-(3,4-dimethylbenzyl)-5,6-dihydroxy-2-{4-[(4-methylpiperazin-1-yl)methyl]phenyl}pyrimidine-4-carboxamide (TFA salt)	462	B
39		2-{4-[(dimethylamino)methyl]phenyl}-N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	423	B
40		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{4-[1-(4-methylpiperazin-1-yl)ethyl]phenyl}pyrimidine-4-carboxamide (TFA salt)	466	B
41		N-(2,3-dimethylbenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	364	A
42		N-(2-chloro-4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	388	A

627

43		N-benzyl-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	336	A
44		5,6-dihydroxy-N-(2-methoxybenzyl)-2-(4-methylphenyl)pyrimidine-4-carboxamide	366	A
45		N-(3,4-dimethylbenzyl)-5,6-dihydroxy-2-[4-(pyrrolidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	433	B
46		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-(1-piperidin-1-ylethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	451	B
47		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[4-(1-morpholin-4-ylethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	495	B
48		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-{4-[1-(4-methylpiperazin-1-yl)ethyl]phenyl}pyrimidine-4-carboxamide (TFA salt)	508	B
49		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	396	A
50		N-(3-chloro-4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylphenyl)pyrimidine-4-carboxamide	388	A

628

51		2-{4-[(diethylamino)methyl]phenyl} N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	467	B
52		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[4-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	479	B
53		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-[4-(pyrrolidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	449	B
54		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[4-(1-piperidin-1-ylethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	493	B
55		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-{4-[(4-methylpiperazin-1-yl)methyl]phenyl}pyrimidine-4-carboxamide (TFA salt)	494	B
56		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[4-(pyrrolidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide (TFA salt)	465	B

Table 8

1		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	292 (M-)	F

629

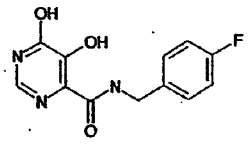
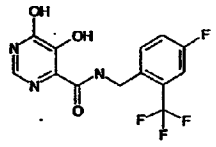
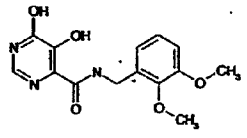
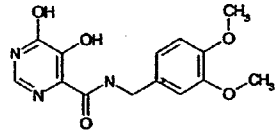
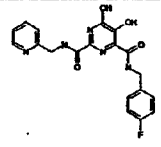
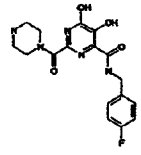
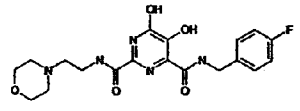
2		N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	262 (M-)	F
3		N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide	332	F
4		N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	304 (M-)	F
5		N-(3,4-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	306	F

Table 9

1		N4-(4-fluorobenzyl)-5,6-dihydroxy-N2-(pyridin-2-ylmethyl)pyrimidine-2,4-dicarboxamide (TFA salt)	396(M-)	H
2		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(piperazin-1-ylcarbonyl)pyrimidine-4-carboxamide (TFA salt)	376	H
3		N4-(4-fluorobenzyl)-5,6-dihydroxy-N2-(2-morpholin-4-ylethyl)pyrimidine-2,4-dicarboxamide (TFA salt)	420	H

630

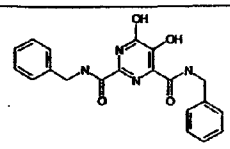
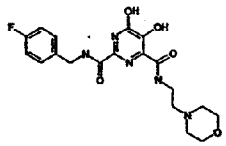
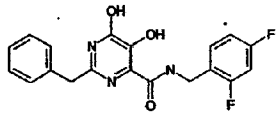
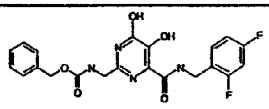
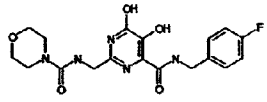
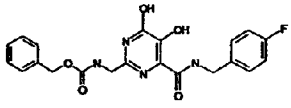
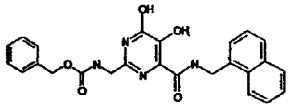
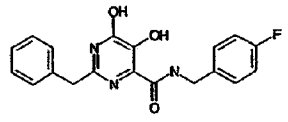
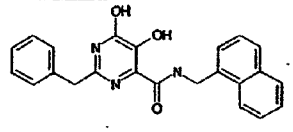
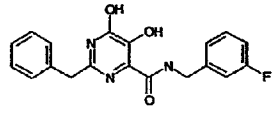
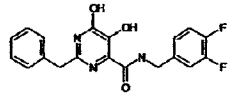
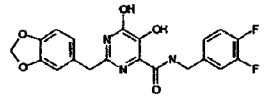
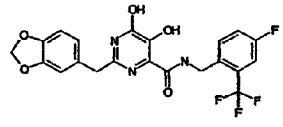
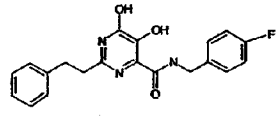
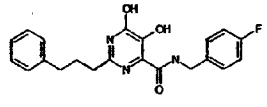
4		N,N'-dibenzyl-5,6-dihydroxypyrimidine-2,4-dicarboxamide	379	H
5		N2-(4-fluorobenzyl)-5,6-dihydroxy-N4-(2-morpholin-4-ylethyl)pyrimidine-2,4-dicarboxamide (TFA salt)	420	H

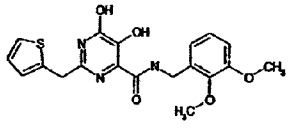
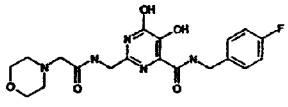
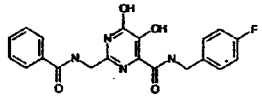
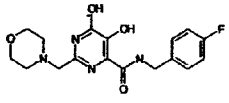
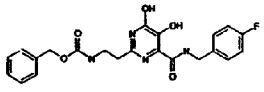
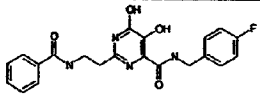
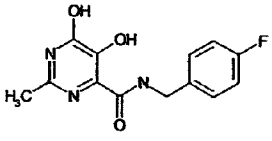
Table 10

1		2-benzyl-N-(2,4-difluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	372	A
2		2-(benzyloxycarbonylaminomethyl)-N-(2,4-difluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	445	A
3		N-[(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)methyl]morpholine-4-carboxamide	406	G
4		2-(benzyloxycarbonylaminomethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	427	A
5		2-(benzyloxycarbonylaminomethyl)-N-(1-naphthylmethyl)-5,6-dihydroxypyrimidine-4-carboxamide	459	A

631

6		2-benzyl-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	354	A
7		2-benzyl-5,6-dihydroxy-N-(1-naphthylmethyl)pyrimidine-4-carboxamide	386	A
8		2-benzyl-N-(3-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	354	A
9		2-benzyl-N-(3,4-difluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	372	A
10		2-(1,3-benzodioxol-5-ylmethyl)-N-(3,4-difluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	416	A
11		2-(1,3-benzodioxol-5-ylmethyl)-N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide	466	A
12		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(2-phenylethyl)pyrimidine-4-carboxamide	368	A
13		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(3-phenylpropyl)pyrimidine-4-carboxamide	382	A

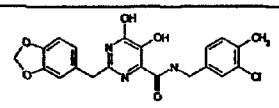
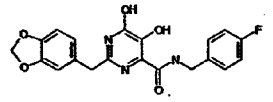
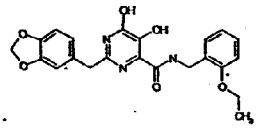
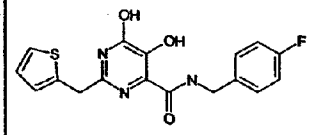
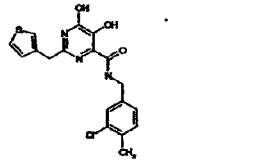
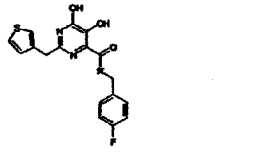
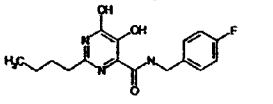
632

14		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(thien-2-ylmethyl)pyrimidine-4-carboxamide	402	A
15		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{[(morpholin-4-ylacetyl)amino]methyl}pyrimidine-4-carboxamide (TFA salt)	420	I
16		2-[(benzoylamino)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	397	I
17		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(morpholin-4-ylmethyl)pyrimidine-4-carboxamide (TFA salt)	363	E
18		benzyl 2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)ethylcarbamate	441	A
19		2-[2-(benzoylamino)ethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	411	I
20		N-(4-fluorobenzyl)-5,6-dihydroxy-2-methylpyrimidine-4-carboxamide	278	A

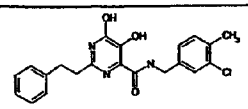
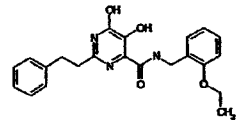
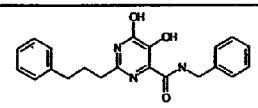
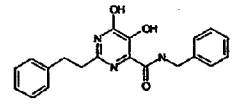
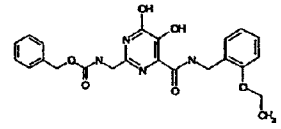
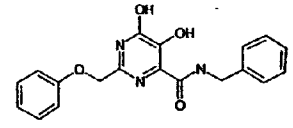
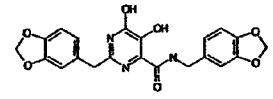
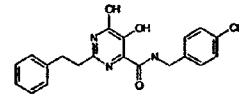
633

21		2-{[(N,N-dimethylglycyl)amino]methyl}-N-(4 fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	378	I
22		2-(benzyloxycarbonylaminomethyl)-N-(3-methoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	439	A
23		2-(benzyloxycarbonylaminomethyl)-N-(4-chlorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	443	A
24		2-(benzyloxycarbonylaminomethyl)-N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxypyrimidine-4-carboxamide	453	A
25		2-(benzyloxycarbonylaminomethyl)-N-(3-chloro-4-methylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	457	A
26		N,2-dibenzyl-5,6-dihydroxypyrimidine-4-carboxamide	336	A
27		2-benzyl-N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	380	A

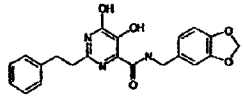
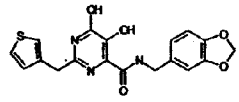
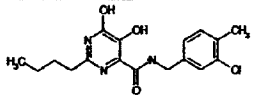
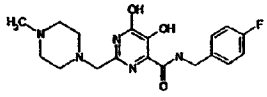
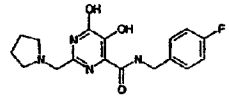
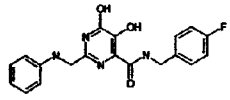
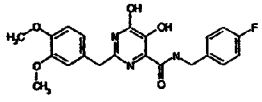
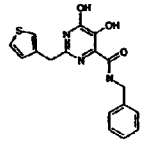
634

28		2-(1,3-benzodioxol-5-ylmethyl)-N-(3-chloro-4-methylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	428	A
29		2-(1,3-benzodioxol-5-ylmethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	398	A
30		2-(1,3-benzodioxol-5-ylmethyl)-N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	424	A
31		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(thien-2-ylmethyl)pyrimidine-4-carboxamide	360	A
32		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	390	A
33		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	360	A
34		2-butyl-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	320	A

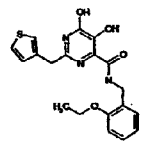
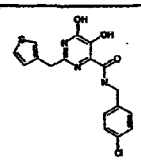
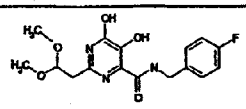
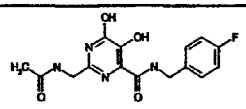
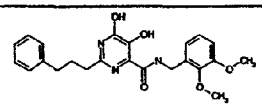
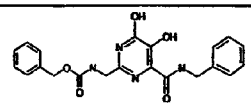
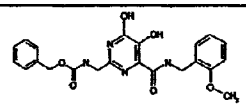
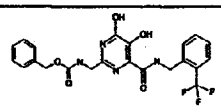
635

35		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-(2-phenylethyl)pyrimidine-4-carboxamide	398	A
36		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-(2-phenylethyl)pyrimidine-4-carboxamide	394	A
37		N-benzyl-5,6-dihydroxy-2-(3-phenylpropyl)pyrimidine-4-carboxamide	364	A
38		N-benzyl-5,6-dihydroxy-2-(2-phenylethyl)pyrimidine-4-carboxamide	350	A
39		2-(benzyloxycarbonylaminomethyl)-N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	453	A
40		N-benzyl-5,6-dihydroxy-2-(phenoxymethyl)pyrimidine-4-carboxamide	352	A
41		N,2-bis(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxypyrimidine-4-carboxamide	424	A
42		N-(4-chlorobenzyl)-5,6-dihydroxy-2-(2-phenylethyl)pyrimidine-4-carboxamide	384	A

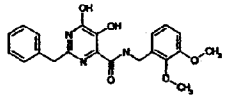
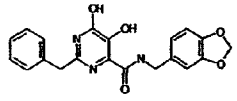
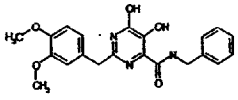
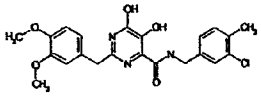
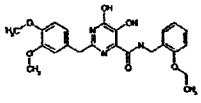
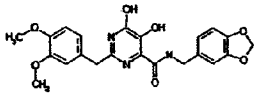
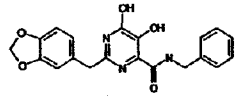
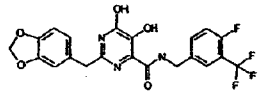
636

43		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-(2-phenylethyl)pyrimidine-4-carboxamide	394	A
44		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	386	A
45		2-butyl-N-(3-chloro-4-methylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	350	A
46		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(4-methylpiperazin-1-yl)methyl]pyrimidine-4-carboxamide (TFA salt)	376	E
47		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(pyrrolidin-1-ylmethyl)pyrimidine-4-carboxamide (TFA salt)	347	E
48		2-(anilinomethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	369	E
49		2-(3,4-dimethoxybenzyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	414	A
50		N-benzyl-5,6-dihydroxy-2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	342	A

637

51		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	386	A
52		N-(4-chlorobenzyl)-5,6-dihydroxy-2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	376	A
53		2-(2,2-dimethoxyethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	352	A
54		2-[(acetylamino)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	335	I
55		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(3-phenylpropyl)pyrimidine-4-carboxamide	424	A
56		2-(benzyloxycarbonylaminomethyl)-N-benzyl-5,6-dihydroxypyrimidine-4-carboxamide	409	A
57		2-(benzyloxycarbonylaminomethyl)-N-(2-methoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	439	A
58		2-(benzyloxycarbonylaminomethyl)-N-(2-trifluoromethylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	477	A

638

59		2-benzyl-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	396	A
60		N-(1,3-benzodioxol-5-ylmethyl)-2-benzyl-5,6-dihydroxypyrimidine-4-carboxamide	380	A
61		N-benzyl-2-(3,4-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	396	A
62		N-(3-chloro-4-methylbenzyl)-2-(3,4-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	444	A
63		2-(3,4-dimethoxybenzyl)-N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	440	A
64		N-(1,3-benzodioxol-5-ylmethyl)-2-(3,4-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	440	A
65		2-(1,3-benzodioxol-5-ylmethyl)-N-benzyl-5,6-dihydroxypyrimidine-4-carboxamide	380	A
66		2-(1,3-benzodioxol-5-ylmethyl)-N-[4-fluoro-3-(trifluoromethyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide	466	A

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67		N-(2,4-dimethoxybenzyl)-5,6-dihydroxy-2-(2-phenylethyl)pyrimidine-4-carboxamide	410	A
68		5,6-dihydroxy-N-(3-methoxybenzyl)2-(2-phenylethyl)pyrimidine-4-carboxamide	380	A
69		5,6-dihydroxy-N-(3-methoxybenzyl)2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	372	A
70		N-(2,4-dimethoxybenzyl)-5,6-dihydroxy-2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	402	A
71		N-benzyl-2-butyl-5,6-dihydroxypyrimidine-4-carboxamide	302	A
72		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(isonicotinoylamino)methyl]pyrimidine-4-carboxamide (TFA salt)	398	I
73		2-[(dimethylamino)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	321	C
74		2-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-N-(3-methoxybenzyl)pyrimidine-4-carboxamide	410	A

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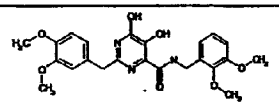
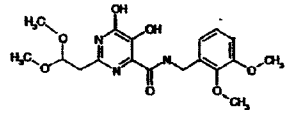
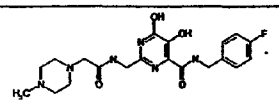
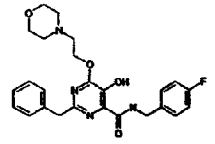
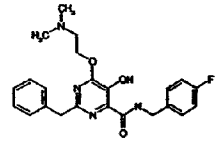
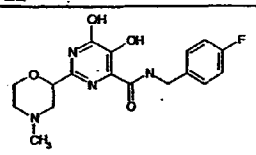
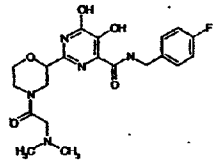
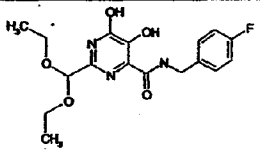
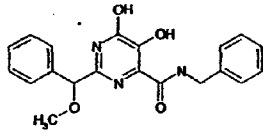
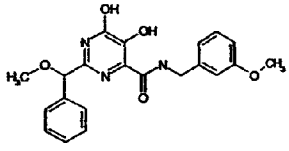
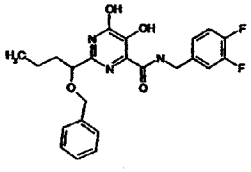
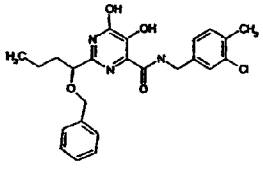
75		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(phenoxymethyl)pyrimidine-4-carboxamide	412	A
76		2-(aminomethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (HCl salt)	293	A*
77		2-(benzyloxycarbonylaminomethyl)-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	469	A
78		2-(1,3-benzodioxol-5-ylmethyl)-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	440	A
79		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(2-phenylethyl)pyrimidine-4-carboxamide	410	A
80		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(thien-3-ylmethyl)pyrimidine-4-carboxamide	402	A
81		2-(aminomethyl)-N-benzyl-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	275	M
82		2-butyl-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	362	A

641

83		N-(2,3-dimethoxybenzyl)-2-(3,4-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	456	A
84		N-(2,3-dimethoxybenzyl)-2-(2,2-dimethoxyethyl)-5,6-dihydroxypyrimidine-4-carboxamide	394	A
85		N-(4-fluorobenzyl)-5,6-dihydroxy-2-({[(4-methylpiperazin-1-yl)acetyl]amino}methyl)pyrimidine-4-carboxamide (TFA salt)	433	I
86		2-benzyl-N-(4-fluorobenzyl)-5-hydroxy-6-(2-morpholin-4-ylethoxy)pyrimidine-4-carboxamide (TFA salt)	467	J
87		2-benzyl-6-[2-(dimethylamino)ethoxy]-N-(4-fluorobenzyl)-5-hydroxypyrimidine-4-carboxamide (TFA salt)	425	J

642

Table 11

1		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylmorpholin-2-yl)pyrimidine-4-carboxamide (TFA salt)	363	C
2		2-[4-(N,N-dimethylglycyl)morpholin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	434	I
3		2-(diethoxymethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	366	A
4		N-benzyl-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	366	A
5		5,6-dihydroxy-N-(3-methoxybenzyl) 2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	396	A
6		2-[1-(benzyloxy)butyl]-N-(3,4-difluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	444	A
7		2-[1-(benzyloxy)butyl]-N-(3-chloro-4-methylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	456	A

643

8		2-[(benzyloxy)(phenyl)methyl]-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	502	A
9		2-[(benzyloxy)(phenyl)methyl]-N-(4 fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	460	A
10		2-[(benzyloxy)(phenyl)methyl]-N-(3 chloro-4-methylbenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	490	A
12		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	426	A
13		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	384	A
14		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	414	A
15		N-benzyl-5,6-dihydroxy-2-(1-hydroxybutyl)pyrimidine-4-carboxamide	318	A*
16		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-(1-hydroxybutyl)pyrimidine-4-carboxamide	366	A*

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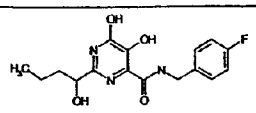
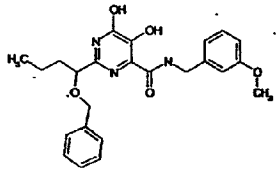
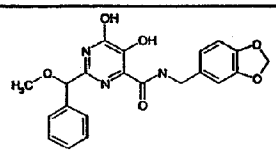
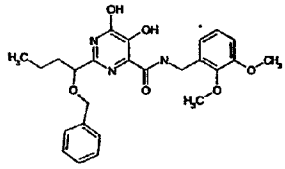
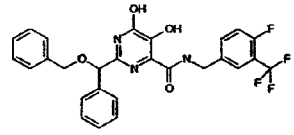
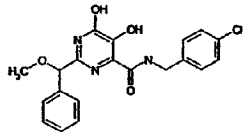
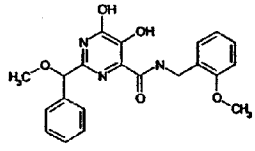
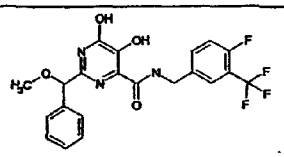
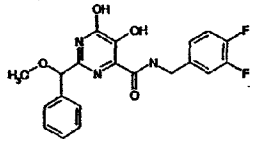
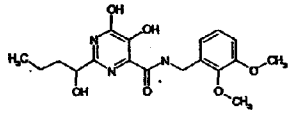
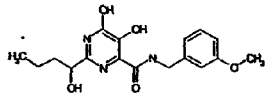
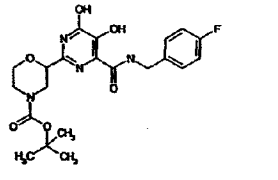
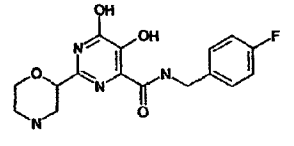
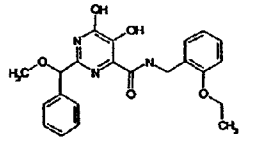
17		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-hydroxybutyl)pyrimidine-4-carboxamide	336	A*
18		2-[1-(benzyloxy)butyl]-5,6-dihydroxy-N-(3-methoxybenzyl)pyrimidine-4-carboxamide	438	A
19		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	410	A
20		2-[1-(benzyloxy)butyl]-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	468	A
21		2-[(benzyloxy)(phenyl)methyl]-N-[4 fluoro-3-(trifluoromethyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide	528	A
22		N-(4-chlorobenzyl)-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	400	A
23		5,6-dihydroxy-N-(2-methoxybenzyl) 2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	396	A

645

24		N-[4-fluoro-3-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	452	A
25		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	402	A
26		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(1-hydroxybutyl)pyrimidine-4-carboxamide	378	A*
27		5,6-dihydroxy-2-(1-hydroxybutyl)-N(3-methoxybenzyl)pyrimidine-4-carboxamide	348	A*
28		tert-butyl 2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydrcxypyrimidin-2-yl)morpholine-4-carboxylate	449	A
29		N-(4-fluorobenzyl)-5,6-dihydroxy-2-morpholin-2-ylpyrimidine-4-carboxamide (TFA salt)	349	A*
30		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-[methoxy(phenyl)methyl]pyrimidine 4-carboxamide	410	A

646

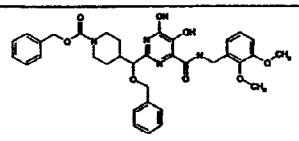
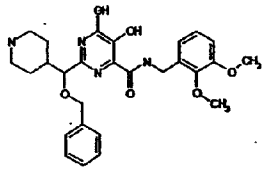
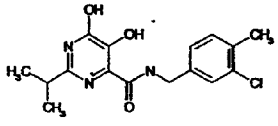
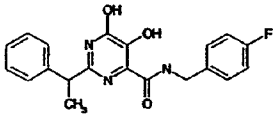
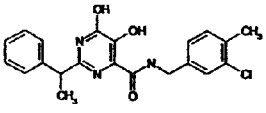
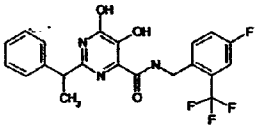
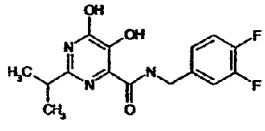
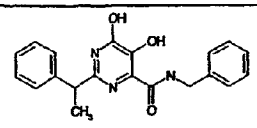
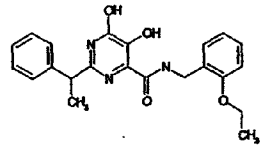
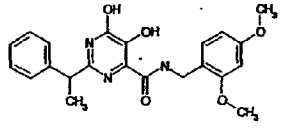
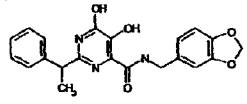
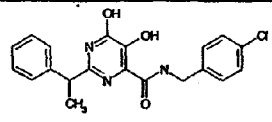
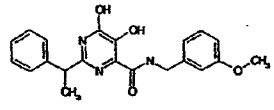
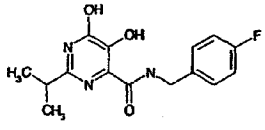
31		benzyl 4-[(benzyloxy)(4-{[(2,3-dimethoxybenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)methyl]piperidine-1-carboxylate	643	A
32		2-[(benzyloxy)(piperidin-4-yl)methyl]-N-(2,3-dimethoxybenzyl)5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	509	A*

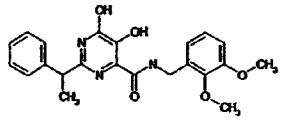
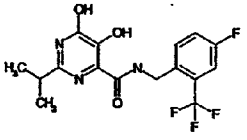
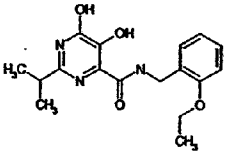
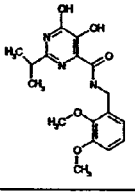
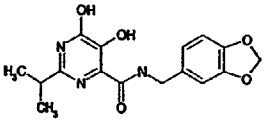
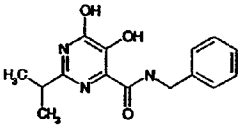
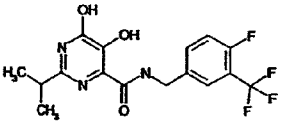
Table 12

1		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	336	A
2		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	368	A
3		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	398	A
4		N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	436	A
5		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	324	A

647

6		N-benzyl-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	350	A
7		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	394	A
8		N-(2,4-dimethoxybenzyl)-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	410	A
9		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	394	A
10		N-(4-chlorobenzyl)-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	384	A
11		5,6-dihydroxy-N-(3-methoxybenzyl)-2-(1-phenylethyl)pyrimidine-4-carboxamide	380	A
12		N-(4-fluorobenzyl)-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	306	A

648

13		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(1-phenylethyl)pyrimidine-4-carboxamide	410	A
14		N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	374	A
15		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	332	A
16		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	348	A
17		N-(1,3-benzodioxol-5-ylmethyl)-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	332	A
18		N-benzyl-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	288	A
19		N-[4-fluoro-3-(trifluoromethyl)benzyl]-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	374	A

649

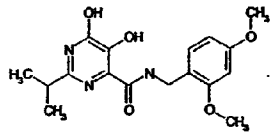
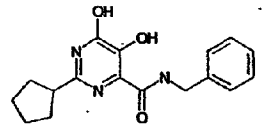
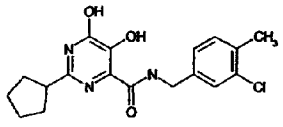
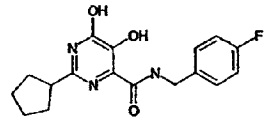
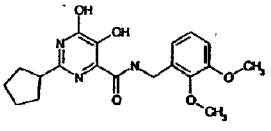
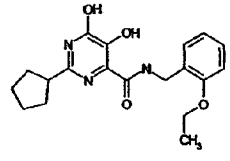
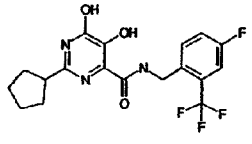
20		N-(2,4-dimethoxybenzyl)-5,6-dihydroxy-2-isopropylpyrimidine-4-carboxamide	348	A

Table 13

1		N-benzyl-2-cyclopentyl-5,6-dihydroxypyrimidine-4-carboxamide	314	A
2		N-(3-chloro-4-methylbenzyl)-2-cyclopentyl-5,6-dihydroxypyrimidine-4-carboxamide	362	A
3		2-cyclopentyl-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	332	A
4		2-cyclopentyl-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	374	A
5		2-cyclopentyl-N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	358	A
6		2-cyclopentyl-N-[4-fluoro-2-(trifluoromethyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide	400	A

650

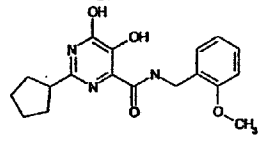
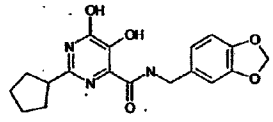
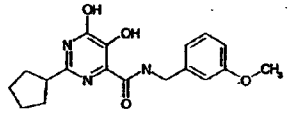
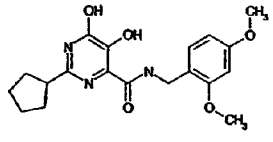
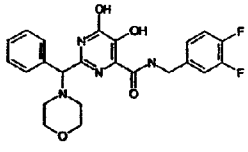
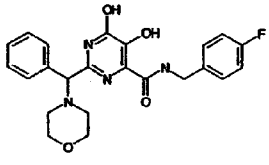
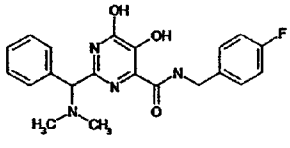
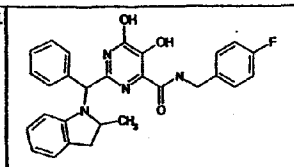
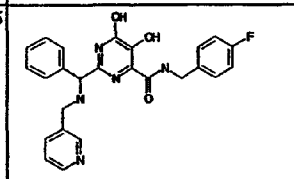
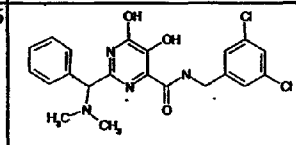
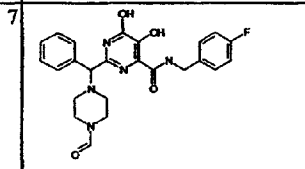
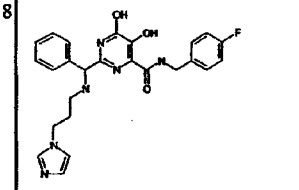
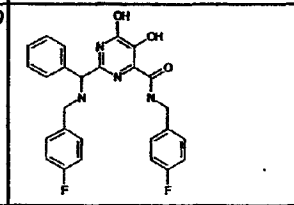
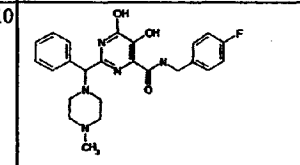
7		2-cyclopentyl-5,6-dihydroxy-N-(2-methoxybenzyl)pyrimidine-4-carboxamide	344	A
8		N-(1,3-benzodioxol-5-ylmethyl)-2-cyclopentyl-5,6-dihydroxypyrimidine-4-carboxamide	358	A
9		2-cyclopentyl-5,6-dihydroxy-N-(3-methoxybenzyl)pyrimidine-4-carboxamide	344	A
10		2-cyclopentyl-N-(2,4-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	374	A

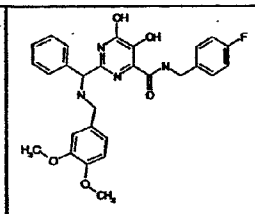
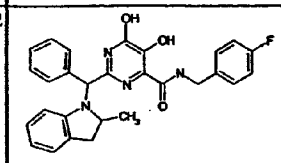
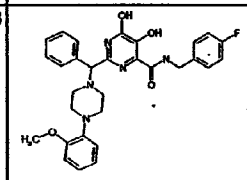
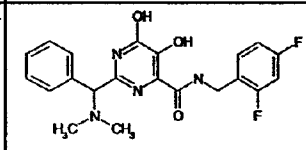
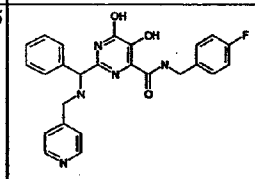
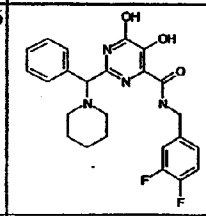
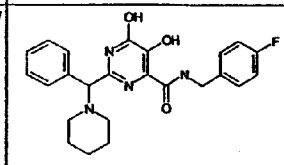
Table 14

1		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-[morpholin-4-yl(phenyl)methyl] pyrimidine-4-carboxamide (TFA salt)	457	B
2		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[morpholin-4-yl(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	439	B
3		2-[(dimethylamino)(phenyl)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	397	B

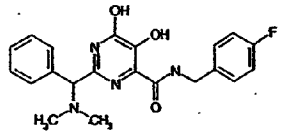
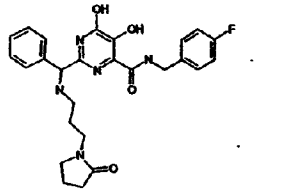
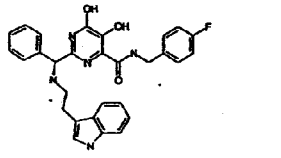
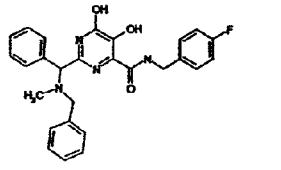
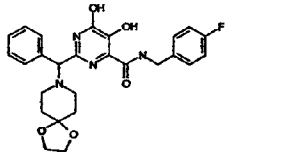
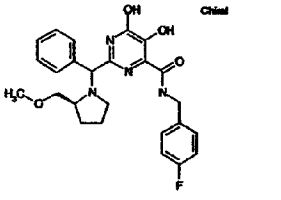
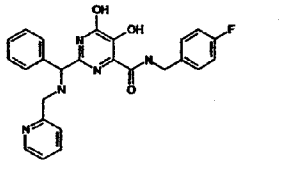
651

4		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(2-methyl-2,3-dihydro-1H-indol-1-yl)(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	485	B
5		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{phenyl[(pyridin-3-ylmethyl)amino]methyl}pyrimidine-4-carboxamide (TFA salt)	460	B
6		N-(3,5-dichlorobenzyl)-2-[(dimethylamino)(phenyl)methyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	447	B
7		N-(4-fluorobenzyl)-2-[(4-formylpiperazin-1-yl)(phenyl)methyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	466	B
8		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[{[3-(1H-imidazol-1-yl)propyl]amino}(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	477	B
9		N-(4-fluorobenzyl)-2-[[(4-fluorobenzyl)amino](phenyl)methyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	477	B
10		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(4-methylpiperazin-1-yl)(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	452	B

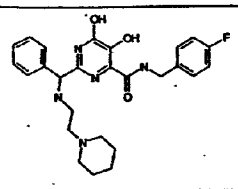
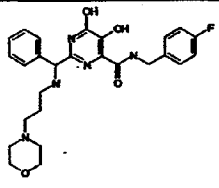
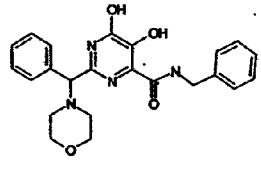
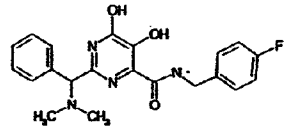
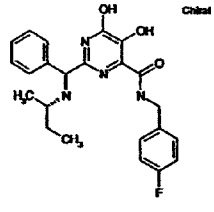
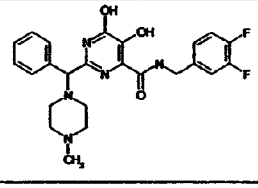
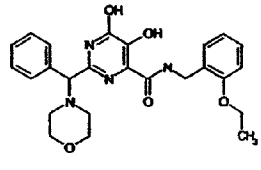
652

11		2-[[(3,4-dimethoxybenzyl)amino](phenyl)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	519	B
12		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(2-methyl-2,3-dihydro-1H-indol-1-yl)(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	485	B
13		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[[4-(2-methoxyphenyl)piperazin-1-yl](phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	544	B
14		N-(2,4-difluorobenzyl)-2-[(dimethylamino)(phenyl)methyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	415	B
15		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{phenyl[(pyridin-4-ylmethyl)amino]methyl}pyrimidine-4-carboxamide (TFA salt)	460	B
16		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-[phenyl(piperidin-1-yl)methyl]pyrimidine-4-carboxamide (TFA salt)	455	B
17		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[phenyl(piperidin-1-yl)methyl]pyrimidine-4-carboxamide (TFA salt)	437	B

653

18		2-[(dimethylamino)(phenyl)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	397	B
19		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[{[3-(2-oxopyrrolidin-1-yl)propyl]amino}(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	494	B
20		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[{[2-(1H-indol-3-yl)ethyl]amino}(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	512	B
21		2-[[benzyl(methyl)amino](phenyl)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	473	B
22		2-[1,4-dioxa-8-azaspiro[4.5]dec-8-yl(phenyl)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	495	B
23		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[[(2S)-2-(methoxymethyl)pyrrolidin-1-yl](phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	467	B
24		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{phenyl[(pyridin-2-ylmethyl)amino]methyl}pyrimidine-4-carboxamide (TFA salt)	460	B

654

25		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{phenyl[(2-piperidin-1-ylethyl)amino]methyl}pyrimidine-4-carboxamide (TFA salt)	480	B
26		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[[(3-morpholin-4-ylpropyl)amino](phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	496	B
27		N-benzyl-5,6-dihydroxy-2-[morpholin-4-yl(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	421	B
28		2-[(dimethylamino)(phenyl)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	397	B
29		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{{[(1S)-1-methylpropyl]amino}(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	425	B
30		N-(3,4-difluorobenzyl)-5,6-dihydroxy-2-[(4-methylpiperazin-1-yl)(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	470	B
31		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-[morpholin-4-yl(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	465	B

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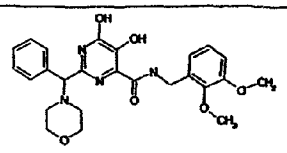
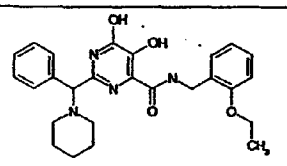
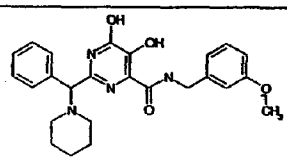
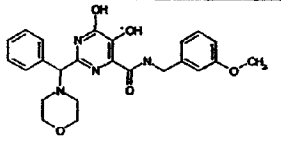
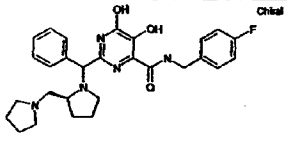
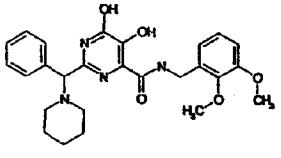
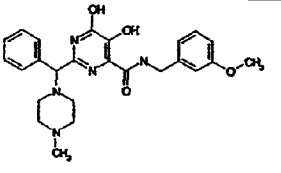
32		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[(4-methylpiperazin-1-yl)(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	494	B
33		N-[(1S)-2,3-dihydro-1H-inden-1-yl]-2-[(dimethylamino)(phenyl)methyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	405	B
34		N-(2-chlorobenzyl)-2-[(dimethylamino)(phenyl)methyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	413	B
35		N-(3,4-difluorobenzyl)-2-[(dimethylamino)(phenyl)methyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	415	B
36		2-[(dimethylamino)(phenyl)methyl]-5,6-dihydroxy-N-(3-methoxybenzyl)pyrimidine-4-carboxamide (TFA salt)	409	B
37		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[[(2-morpholin-4-ylethyl)amino](phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	482	B
38		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{phenyl[(2-pyrrolidin-1-ylethyl)amino]methyl}pyrimidine-4-carboxamide (TFA salt)	466	B

657

46		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[morpholin-4-yl(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	481	B
47		N-(2-ethoxybenzyl)-5,6-dihydroxy-2-[phenyl(piperidin-1-yl)methyl]pyrimidine-4-carboxamide (TFA salt)	463	B
48		5,6-dihydroxy-N-(3-methoxybenzyl)-2-[phenyl(piperidin-1-yl)methyl]pyrimidine-4-carboxamide (TFA salt)	449	B
49		5,6-dihydroxy-N-(3-methoxybenzyl)-2-[morpholin-4-yl(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	451	B
50		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{phenyl[(2S)-2-(pyrrolidin-1-ylmethyl)pyrrolidin-1-yl]methyl}pyrimidine-4-carboxamide (TFA salt)	506	B
51		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[phenyl(piperidin-1-yl)methyl]pyrimidine-4-carboxamide (TFA salt)	479	B
52		5,6-dihydroxy-N-(3-methoxybenzyl)-2-[(4-methylpiperazin-1-yl)(phenyl)methyl]pyrimidine-4-carboxamide (TFA salt)	464	B

680

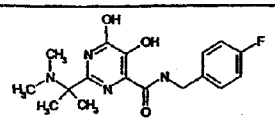
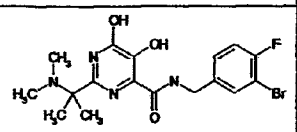
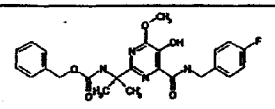
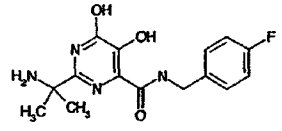
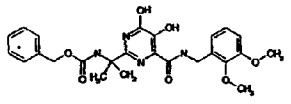
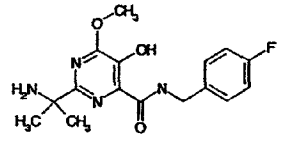
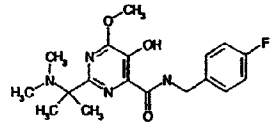
10		2-[1-(dimethylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	349	E
11		N-(3-bromo-4-fluorobenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	428	E
12		benzyl 1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5-hydroxy-6-methoxypyrimidin-2-yl)-1-methylethylcarbamate	469	J
13		2-(1-amino-1-methylethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	321	A*
14		benzyl 1-(4-{[(2,3-dimethoxybenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-1-methylethylcarbamate	497	A
15		2-(1-amino-1-methylethyl)-N-(4-fluorobenzyl)-5-hydroxy-6-methoxypyrimidine-4-carboxamide	335	A*
16		2-[1-(dimethylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5-hydroxy-6-methoxypyrimidine-4-carboxamide	363	A

Table 16

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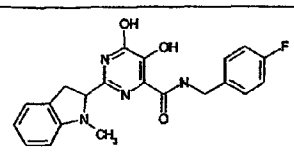
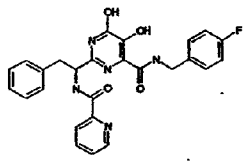
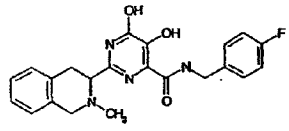
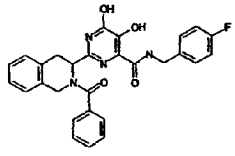
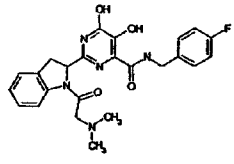
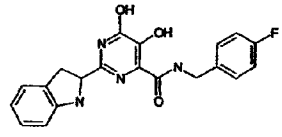
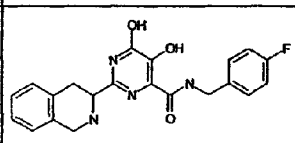
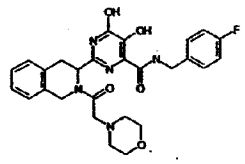
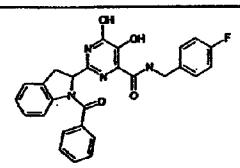
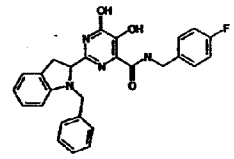
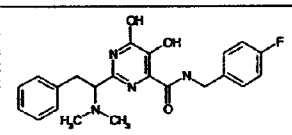
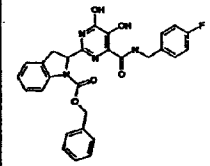
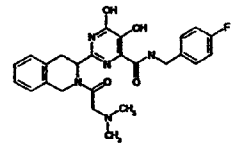
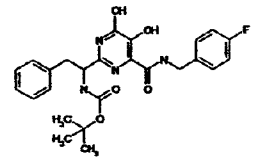
1		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-2,3-dihydro-1H-indol-2-yl)pyrimidine-4-carboxamide (TFA salt)	395	C
2		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-phenyl-1-[(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide (TFA salt)	488	I
3		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(2-methyl-1,2,3,4-tetrahydroisoquinolin-3-yl)pyrimidine-4-carboxamide (TFA salt)	409	C
4		2-(2-benzoyl-1,2,3,4-tetrahydroisoquinolin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	499	I
5		2-[1-(N,N-dimethylglycyl)-2,3-dihydro-1H-indol-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	466	I
6		2-(2,3-dihydro-1H-indol-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	381	A*
7		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1,2,3,4-tetrahydroisoquinolin-3-yl)pyrimidine-4-carboxamide	395	A*

662

8		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-(morpholin-4-ylacetyl)-1,2,3,4-tetrahydroisoquinolin-3-yl]pyrimidine-4-carboxamide (TFA salt)	522	I
9		2-(1-benzoyl-2,3-dihydro-1H-indol-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	485	I
10		2-(1-benzyl-2,3-dihydro-1H-indol-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	471	C
11		2-[1-(dimethylamino)-2-phenylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	411	C
12		benzyl 2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)indoline-1-carboxylate	515	A
13		2-[2-(N,N-dimethylglycyl)-1,2,3,4-tetrahydroisoquinolin-3-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	480	I
14		tert-butyl 1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-2-phenylethylcarbamate	483	A

663

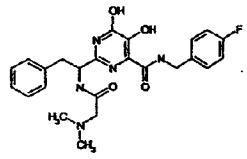
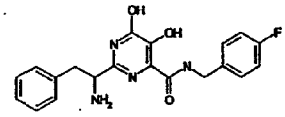
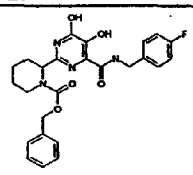
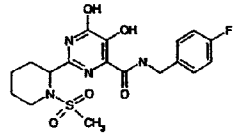
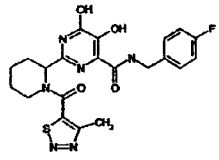
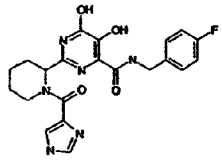
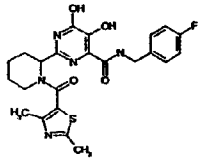
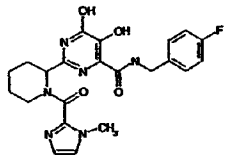
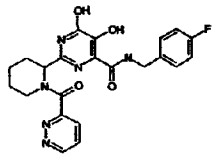
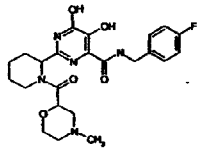
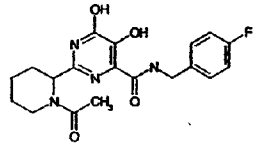
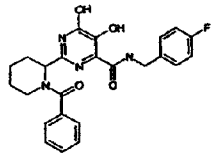
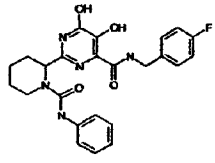
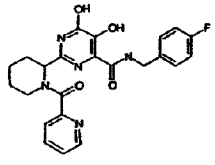
15		2-{1-[(N,N-dimethylglycyl)amino]-2-phenylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	468	I
16		2-(1-amino-2-phenylethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	383	A*

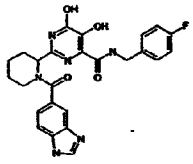
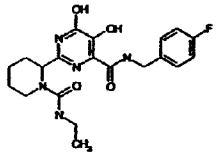
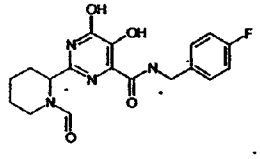
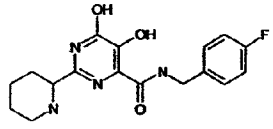
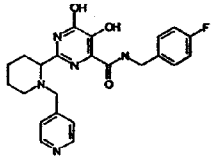
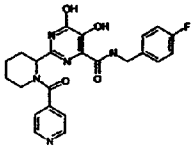
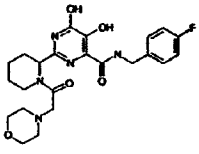
Table 17

1		benzyl 2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	481	A
2		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(methylsulfonyl)piperidin-2-yl]pyrimidine-4-carboxamide	425	I
3		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-[(4-methyl-1,2,3-thiadiazol-5-yl)carbonyl]piperidin-2-yl}pyrimidine-4-carboxamide (TFA salt)	473	I
4		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(1H-imidazol-4-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	441	I
5		2-{1-[(2,4-dimethyl-1,3-thiazol-5-yl)carbonyl]piperidin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	486	I

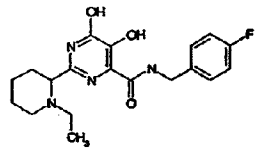
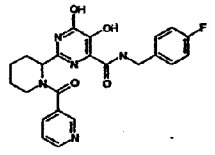
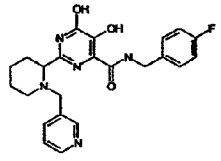
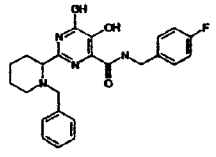
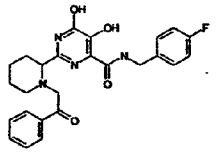
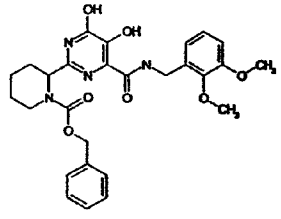
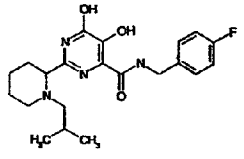
664

6		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-[(1-methyl-1H-imidazol-2-yl)carbonyl]piperidin-2-yl}pyrimidine-4-carboxamide (TFA salt)	455	I
7		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridazin-3-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide	453	I
8		N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-[(4-methylmorpholin-2-yl)carbonyl]piperidin-2-yl}pyrimidine-4-carboxamide	474	I
9		2-(1-acetylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	389	I
10		2-(1-benzoylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	451	I
11		2-[1-(anilinocarbonyl)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	466	G
12		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-2-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	452	I

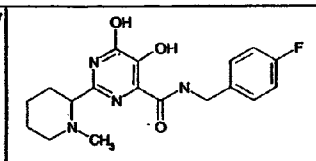
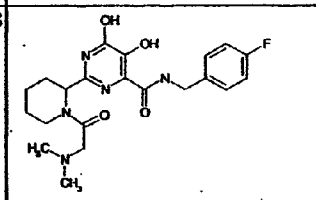
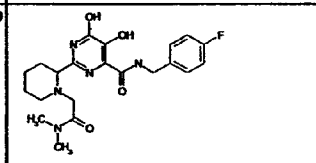
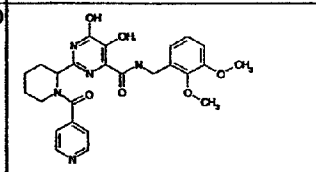
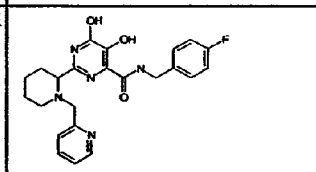
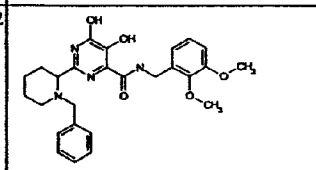
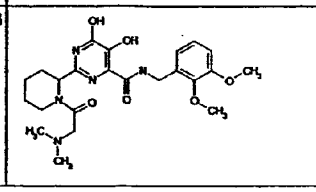
665

13		2-[1-(1H-benzimidazol-5-ylcarbonyl)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	491	I
14		2-{1-[(ethylamino)carbonyl]piperidin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	418	G
15		N-(4-fluorobenzyl)-2-(1-formylpiperidin-2-yl)-5,6-dihydroxypyrimidine-4-carboxamide	375	I
16		N-(4-fluorobenzyl)-5,6-dihydroxy-2-piperidin-2-ylpyrimidine-4-carboxamide	347	A*
17		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-4-ylmethyl)piperidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	438	D
18		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-isonicotinoylpiperidin-2-yl)pyrimidine-4-carboxamide (TFA salt)	452	I
19		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(morpholin-4-ylacetyl)piperidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	474	I

666

20		2-(1-ethylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	375	C
21		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-3-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	452	I
22		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-3-ylmethyl)piperidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	438	D
23		2-(1-benzylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	437	D
24		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(2-oxo-2-phenylethyl)piperidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	465	D
25		benzyl 2-(4-{[(2,3-dimethoxybenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	523	A
26		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-isobutylpiperidin-2-yl)pyrimidine 4-carboxamide (TFA salt)	403	C

667

27		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methylpiperidin-2-yl)pyrimidine-4-carboxamide (TFA salt)	361	D
28		2-[1-(N,N-dimethylglycyl)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	432	I
29		2-{1-[2-(dimethylamino)-2-oxoethyl]piperidin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	432	D
30		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(1-isonicotinoylpiperidin-2-yl)pyrimidine-4-carboxamide (TFA salt)	494	I
31		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-2-ylmethyl)piperidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	438	D
32		2-(1-benzylpiperidin-2-yl)-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	479	D
33		N-(2,3-dimethoxybenzyl)-2-[1-(N,N-dimethylglycyl)piperidin-2-yl]-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	474	I

668

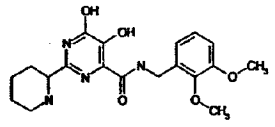
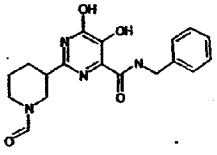
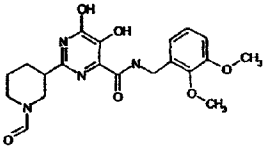
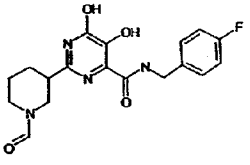
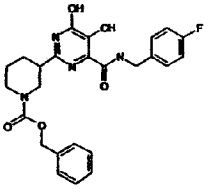
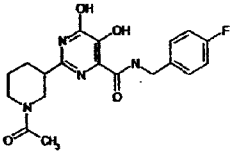
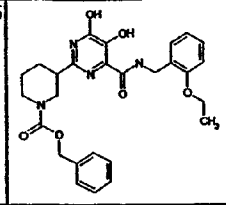
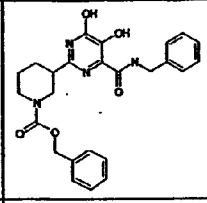
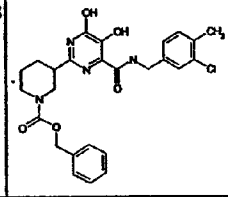
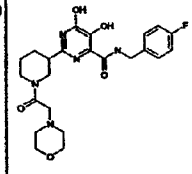
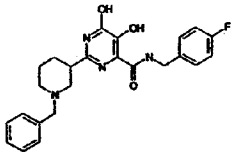
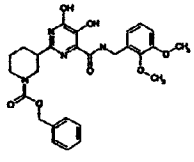
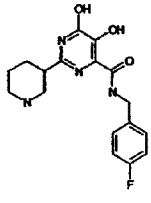
34		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-piperidin-2-ylpyrimidine-4-carboxamide	389	A*

Table 18

1		N-benzyl-2-(1-formylpiperidin-3-yl)-5,6-dihydroxypyrimidine-4-carboxamide	357	I
2		N-(2,3-dimethoxybenzyl)-2-(1-formylpiperidin-3-yl)-5,6-dihydroxypyrimidine-4-carboxamide	417	I
3		N-(4-fluorobenzyl)-2-(1-formylpiperidin-3-yl)-5,6-dihydroxypyrimidine-4-carboxamide	375	I
4		benzyl 3-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	481	A
5		2-(1-acetylpiperidin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	389	I

669

6		benzyl 3-(4-{[(2-ethoxybenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	507	A
7		benzyl 3-{4-[(benzylamino)carbonyl]-5,6-dihydroxypyrimidin-2-yl}piperidine-1-carboxylate	463	A
8		benzyl 3-(4-{[(3-chloro-4-methylbenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	511	A
9		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(morpholin-4-ylacetyl)piperidin-3-yl]pyrimidine-4-carboxamide (TFA salt)	474	I
10		2-(1-benzylpiperidin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	437	C
11		benzyl 3-(4-{[(2,3-dimethoxybenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	523	A
12		N-(4-fluorobenzyl)-5,6-dihydroxy-2-piperidin-3-ylpyrimidine-4-carboxamide (TFA salt)	347	A*

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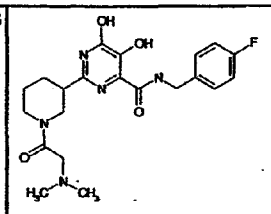
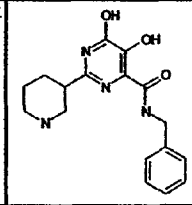
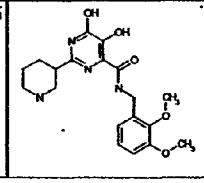
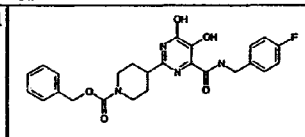
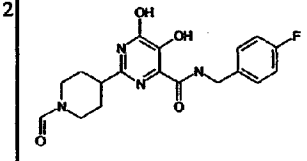
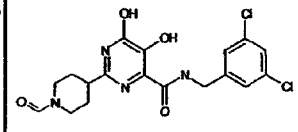
13		2-[1-(N,N-dimethylglycyl)piperidin-3-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	432	I
14		N-benzyl-5,6-dihydroxy-2-piperidin-3-ylpyrimidine-4-carboxamide (TFA salt)	329	A*
15		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-piperidin-3-ylpyrimidine-4-carboxamide (TFA salt)	389	A*

Table 19

1		benzyl 4-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	481	A
2		N-(4-fluorobenzyl)-2-(1-formylpiperidin-4-yl)-5,6-dihydroxypyrimidine-4-carboxamide	375	I
3		N-(3,5-dichlorobenzyl)-2-(1-formylpiperidin-4-yl)-5,6-dihydroxypyrimidine-4-carboxamide	425	I

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4		benzyl 4-{4-[(benzylamino)carbonyl]-5,6-dihydroxypyrimidin-2-yl}piperidine-1-carboxylate	463	A
5		benzyl 4-(4-{[(3-chloro-4-methylbenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	511	A
6		benzyl 4-(4-{[(2-ethoxybenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	507	A
7		benzyl 4-(4-{[(2,3-dimethoxybenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	523	A
8		2-[1-(N,N-dimethylglycyl)piperidin-4-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	432	I
9		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methylpiperidin-4-yl)pyrimidine-4-carboxamide (TFA salt)	361	C
10		N-(4-fluorobenzyl)-5,6-dihydroxy-2-piperidin-4-ylpyrimidine-4-carboxamide (TFA salt)	347	A*

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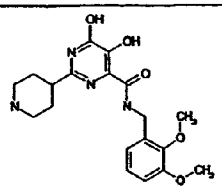
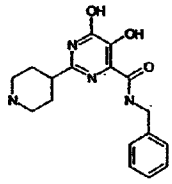
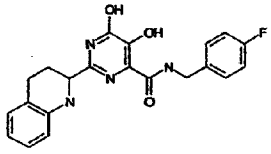
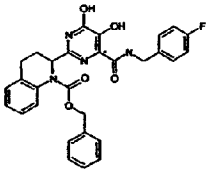
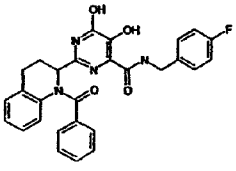
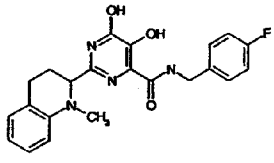
11		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-piperidin-4-ylpyrimidine-4-carboxamide (TFA salt)	389	A*
12		N-benzyl-5,6-dihydroxy-2-piperidin-4-ylpyrimidine-4-carboxamide (TFA salt)	329	A*

Table 20

1		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1,2,3,4-tetrahydroquinolin-2-yl)pyrimidine-4-carboxamide (TFA salt)	395	A*
2		benzyl 2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-3,4-dihydroquinoline-1(2H)-carboxylate	529	A
3		2-(1-benzoyl-1,2,3,4-tetrahydroquinolin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	499	I
4		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1,2,3,4-tetrahydroquinolin-2-yl)pyrimidine-4-carboxamide (TFA salt)	409	C

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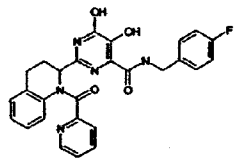
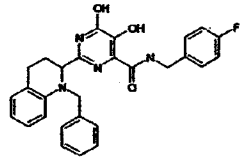
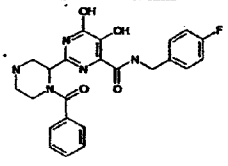
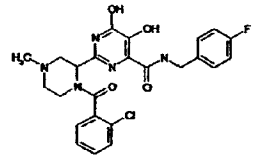
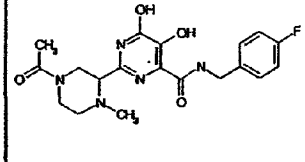
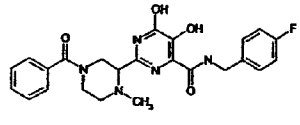
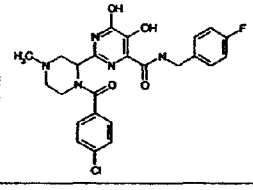
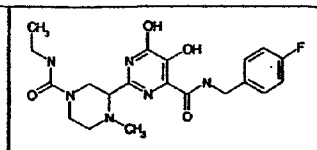
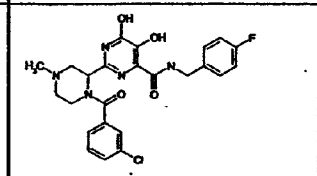
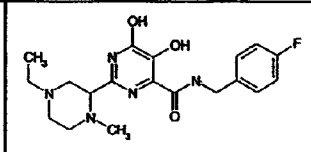
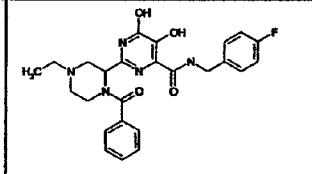
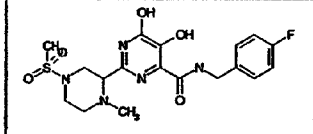
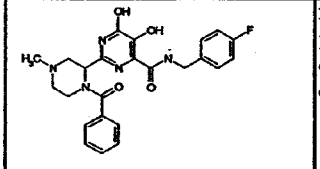
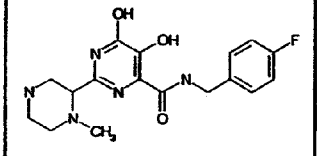
5		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-2-ylcarbonyl)-1,2,3,4-tetrahydroquinolin-2-yl]pyrimidine-4-carboxamide (TFA salt)	500	I
6		2-(1-benzyl-1,2,3,4-tetrahydroquinolin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	485	C

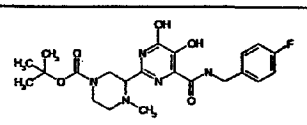
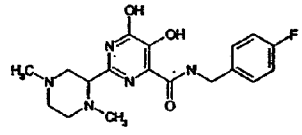
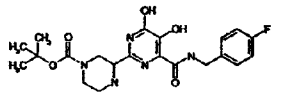
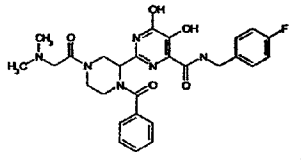
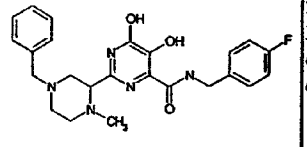
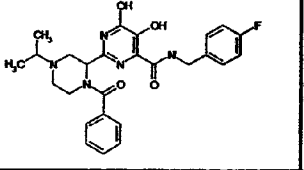
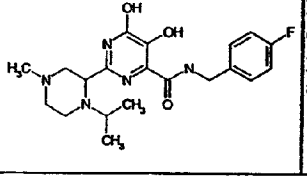
Table 21

1		2-(1-benzoylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	452	A*
2		2-[1-(2-chlorobenzoyl)-4-methylpiperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (HCl salt)	500	I
3		2-(4-acetyl-1-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	404	I
4		2-(4-benzoyl-1-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	466	I
5		2-[1-(4-chlorobenzoyl)-4-methylpiperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	500	I

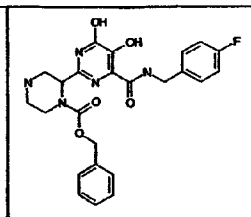
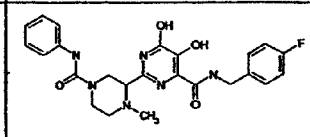
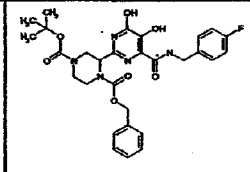
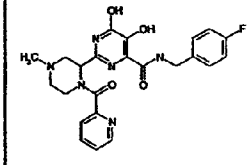
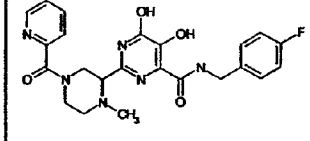
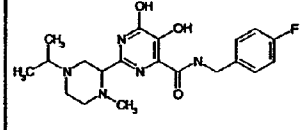
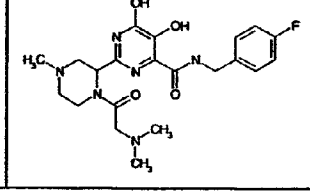
674

6		2-{4-[(ethylamino)carbonyl]-1-methylpiperazin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	433	G
7		2-[1-(3-chlorobenzoyl)-4-methylpiperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	500	I
8		2-(4-ethyl-1-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	390	C
9		2-(1-benzoyl-4-ethylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	480	C
10		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-methyl-4-(methylsulfonyl)piperazin-2-yl]pyrimidine-4-carboxamide (TFA salt)	440	I
11		2-(1-benzoyl-4-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	466	I
12		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methylpiperazin-2-yl)pyrimidine-4-carboxamide (TFA salt)	362	A*

675

13		tert-butyl 3-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-4-methylpiperazine-1-carboxylate (TFA salt)	462	C
14		2-(1,4-dimethylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	376	C
15		tert-butyl 3-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperazine-1-carboxylate (TFA salt)	448	A*
16		2-[1-benzoyl-4-(N,N-dimethylglycyl)piperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	537	I
17		2-(4-benzyl-1-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	452	C
18		2-(1-benzoyl-4-isopropylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	494	C
19		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-isopropyl-4-methylpiperazin-2-yl)pyrimidine-4-carboxamide (TFA aslt)	404	C

676

20		benzyl 2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperazine-1-carboxylate (TFA salt)	482	A*
21		2-[4-(anilinocarbonyl)-1-methylpiperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	481	G
22		1-benzyl 4-tert-butyl 2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperazine-1,4-dicarboxylate	580 (M-)	A
23		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-methyl-1-(pyridin-2-ylcarbonyl)piperazin-2-yl]pyrimidine-4-carboxamide (TFA salt)	467	C
24		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-methyl-4-(pyridin-2-ylcarbonyl)piperazin-2-yl]pyrimidine-4-carboxamide (TFA salt)	467	I
25		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-isopropyl-1-methylpiperazin-2-yl)pyrimidine-4-carboxamide (TFA salt)	404	C
26		2-[1-(N,N-dimethylglycyl)-4-methylpiperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	447	I

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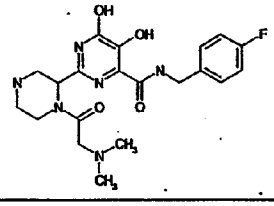
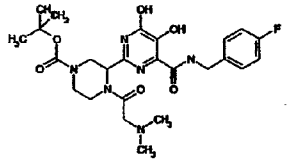
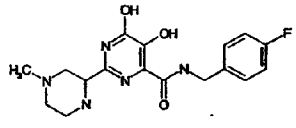
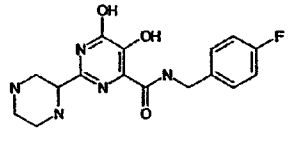
27		2-[1-(N,N-dimethylglycyl)piperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	433	A*
28		tert-butyl 4-(N,N-dimethylglycyl)-3-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperazine-1-carboxylate (TFA salt)	533	I
29		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylpiperazin-2-yl)pyrimidine-4-carboxamide (TFA salt)	362	A*
30		N-(4-fluorobenzyl)-5,6-dihydroxy-2-piperazin-2-ylpyrimidine-4-carboxamide (TFA salt)	348	A*

678

Table 22

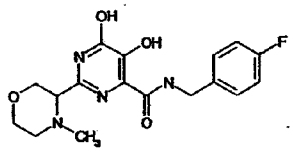
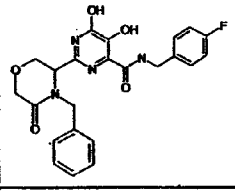
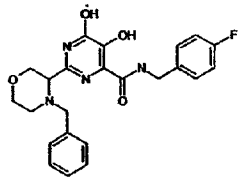
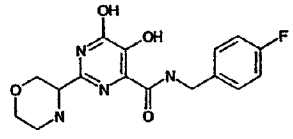
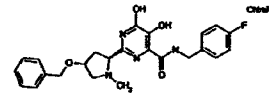
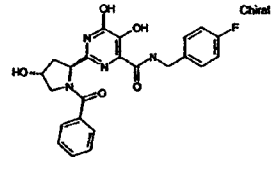
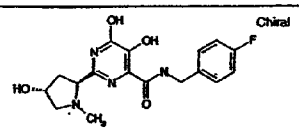
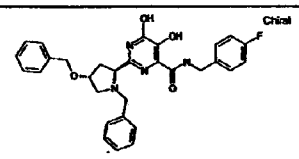
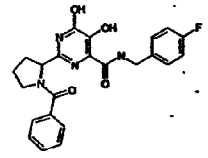
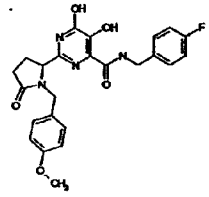
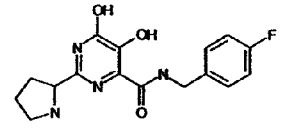
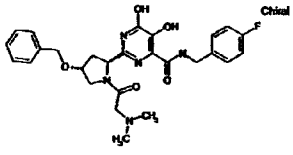
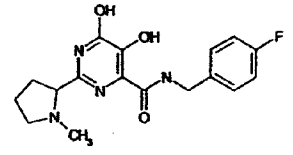
1		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylmorpholin-3-yl)pyrimidine-4-carboxamide (TFA salt)	363	C
2		2-(4-benzyl-5-oxomorpholin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	453	A
3		2-(4-benzylmorpholin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	439	C
4		N-(4-fluorobenzyl)-5,6-dihydroxy-2-morpholin-3-ylpyrimidine-4-carboxamide (TFA salt)	349	A*

Table 23

1		2-[(2S,4R)-4-(benzyloxy)-1-methylpyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	453	A
2		2-[(2S,4R)-1-benzoyl-4-hydroxypyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	453	I

679

3		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(2S,4R)-4-hydroxy-1-methylpyrrolidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	363	A*
4		2-[(2S,4R)-1-benzyl-4-(benzyloxy)pyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	529	C
5		2-(1-benzoylpyrrolidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	437	I
6		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(4-methoxybenzyl)-5-oxopyrrolidin-2-yl]pyrimidine-4-carboxamide	467	A
7		N-(4-fluorobenzyl)-5,6-dihydroxy-2-pyrrolidin-2-ylpyrimidine-4-carboxamide (TFA salt)	333	A*
8		2-[(2S,4R)-4-(benzyloxy)-1-(N,N-dimethylglycyl)pyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	524	I
9		N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methylpyrrolidin-2-yl)pyrimidine-4-carboxamide (TFA salt)	347	D

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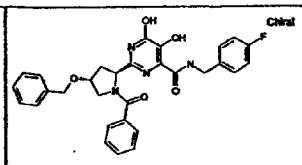
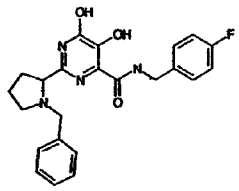
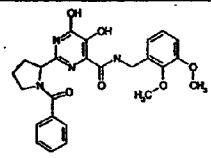
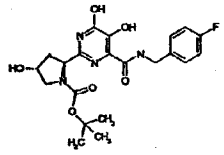
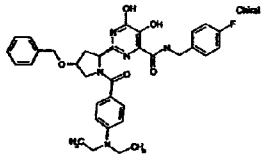
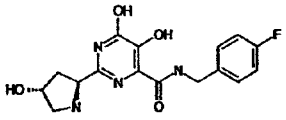
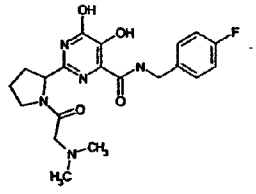
10		2-[(2S,4R)-1-benzoyl-4-(benzyloxy)pyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	543	I
11		2-(1-benzylpyrrolidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	423	D
12		2-(1-benzoylpyrrolidin-2-yl)-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	479	I
13		tert-butyl (2S,4R)-2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-4-hydroxypyrrolidine-1-carboxylate	449	A*
14		2-{(2S,4R)-4-(benzyloxy)-1-[4-(diethylamino)benzoyl]pyrrolidin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	614	I
15		N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(2S,4R)-4-hydroxypyrrolidin-2-yl]pyrimidine-4-carboxamide (TFA salt)	349	A*
16		2-[1-(N,N-dimethylglycyl)pyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	418	I

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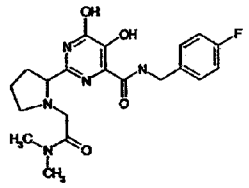
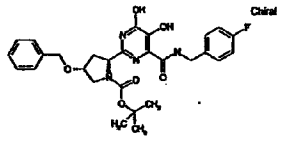
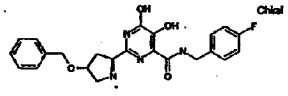
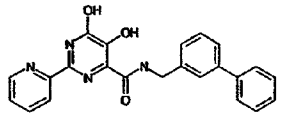
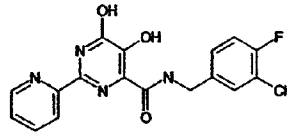
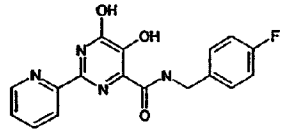
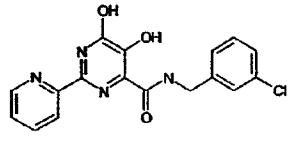
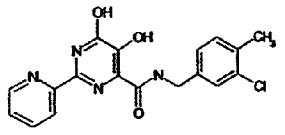
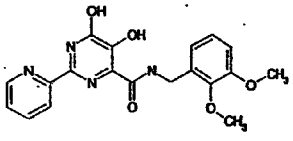
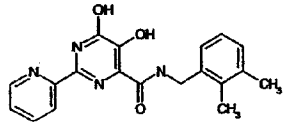
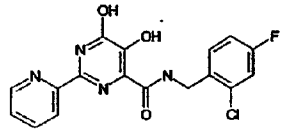
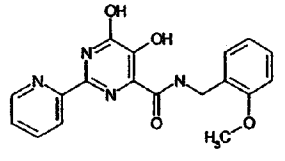
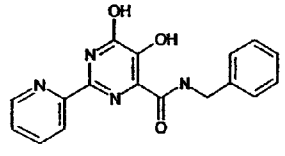
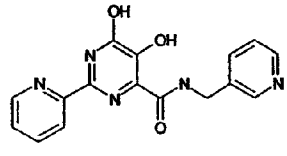
17		2-{1-[2-(dimethylamino)-2-oxoethyl]pyrrolidin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (TFA salt)	418	D
18		tert-butyl (2S,4R)-4-(benzyloxy)-2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)pyrrolidine 1-carboxylate	539	A
19		2-[(2S,4R)-4-(benzyloxy)pyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide (HCl salt)	439	A*

Table 24

1		N-(1,1'-biphenyl-3-ylmethyl)-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	399	A
2		N-(3-chloro-4-fluorobenzyl)-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	375	A
3		N-(4-fluorobenzyl)-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	341	A
4		N-(3-chlorobenzyl)-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	357	A

682

5		N-(3-chloro-4-methylbenzyl)-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	371	A
6		N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	383	A
7		N-(2,3-dimethylbenzyl)-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	351	A
8		N-(2-chloro-4-fluorobenzyl)-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	375	A
9		5,6-dihydroxy-N-(2-methoxybenzyl) 2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	353	A
10		N-benzyl-5,6-dihydroxy-2-pyridin-2-ylpyrimidine-4-carboxamide (HCl salt)	323	A
11		5,6-dihydroxy-2-pyridin-2-yl-N-(pyridin-3-ylmethyl)pyrimidine-4-carboxamide (TFA salt)	324	A

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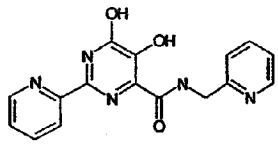
12		5,6-dihydroxy-2-pyridin-2-yl-N-(pyridin-2-ylmethyl)pyrimidine-4-carboxamide (TFA salt)	324	A

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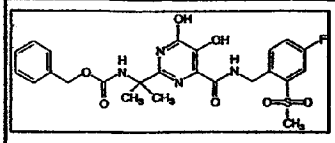
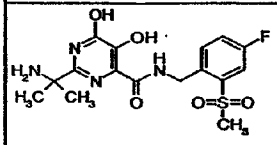
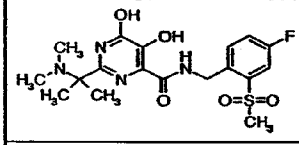
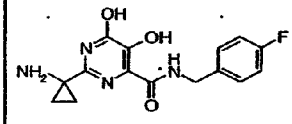
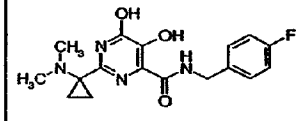
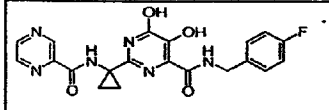
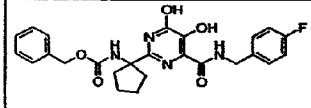
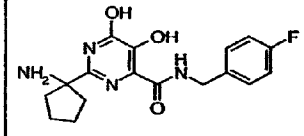
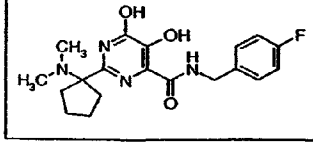
Table 15B

Strucuture	name	M+1	Procedure
	benzyl 1-[4-({[4-fluoro-2-(methylsulfonyl)benzyl]amino}carbonyl)-5,6-dihydroxypyrimidin-2-yl]-1-methylethylcarbamate	533	A
	2-(1-amino-1-methylethyl)-N-[4-fluoro-2-(methylsulfonyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide	399	A*
	2-[1-(dimethylamino)-1-methylethyl]-N-[4-fluoro-2-(methylsulfonyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide	427	C
	2-(1-aminocyclopropyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	319	A*
	2-[1-(dimethylamino)cyclopropyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	347	C
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-[(pyrazin-2-ylcarbonyl)amino]cyclopropyl}pyrimidine-4-carboxamide	425	I
	benzyl 1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)cyclopentylcarbamate	481	A
	2-(1-aminocyclopentyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	347	A*
	2-[1-(dimethylamino)cyclopentyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	375	C

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	2-{1-[[(ethylamino)carbonyl]amino}-1-methylethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	392	G
	2-[1-(benzylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	411	C
	2-[1-(benzoylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	425	I
	2-{1-[benzyl(methyl)amino]-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	425	C
	2-[1-(dimethylamino)-1-methylethyl]-N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	375	A
	N-(2-chlorobenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide	365	A
	N-(2-chlorobenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide	383	A
	N-(5-chloro-2-methylbenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide	379	A
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-methyl-1-[(pyrazin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide	427	I

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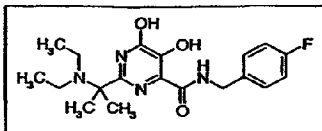
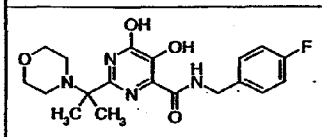
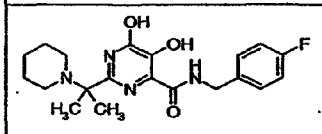
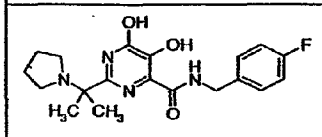
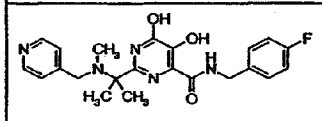
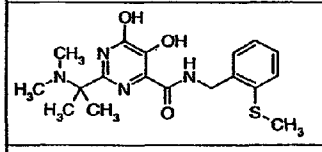
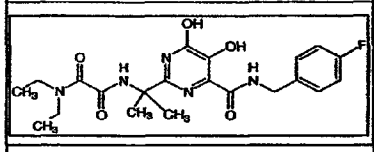
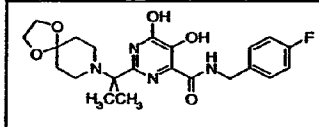
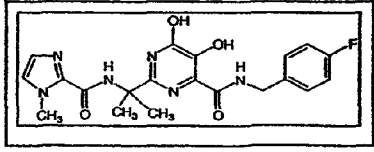
	2-[1-(diethylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	377	K
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-morpholin-4-ylethyl)pyrimidine-4-carboxamide	391	K
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-piperidin-1-ylethyl)pyrimidine-4-carboxamide	389	K
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-pyrrolidin-1-ylethyl)pyrimidine-4-carboxamide	375	K
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-[methyl(pyridin-4-ylmethyl)amino]ethyl)pyrimidine-4-carboxamide	426	C
	2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxy-N-[2-(methylthio)benzyl]pyrimidine-4-carboxamide	377	A
	N1,N1-diethyl-N2-[1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-1-methylethyl]ethanediamide	448	
	2-[1-(1,4-dioxa-8-azaspiro[4.5]dec-8-yl)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	447	K
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-[[(1-methyl-1H-imidazol-2-yl)carbonyl]amino]ethyl)pyrimidine-4-carboxamide	429	I

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	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-methyl-1-(4-oxopiperidin-1-yl)ethyl]pyrimidine-4-carboxamide	403	K
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-methyl-1-[methyl(pyridin-2-ylmethyl)amino]ethyl}pyrimidine-4-carboxamide	426	C
	N-{1-(4-[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-1-methylethyl]-4-methylmorpholine-2-carboxamide	448	I
	2-{1-[acetyl(methyl)amino]-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	377	I
	2-[1-(acetylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	363	I
	2-{1-[4-(dimethylamino)piperidin-1-yl]-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide		E
	N-(2,3-dimethoxybenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide	391	A
	2-[4-(dimethylamino)tetrahydro-2H-pyran-4-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide		C
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(7-methyl-7-azabicyclo[2.2.1]hept-1-yl)pyrimidine-4-carboxamide	373	C

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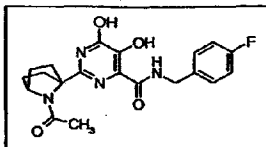
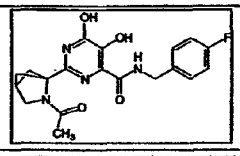
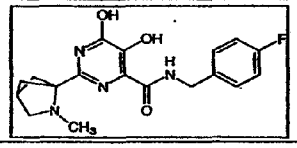
	2-(7-acetyl-7-azabicyclo[2.2.1]hept-1-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	401	A
	2-(2-acetyl-2-azabicyclo[2.1.1]hex-1-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	387	A
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(2-methyl-2-azabicyclo[2.1.1]hex-1-yl)pyrimidine-4-carboxamide	359	C

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Table 17B

Structure	Name	M+1	Procedure
	tert-butyl (2S,4R)-4-(benzyloxy)-2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate	553	A
	2-[(2S,4R)-4-(benzyloxy)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	453	A*
	2-[(2S,4R)-4-(benzyloxy)-1-methylpiperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	467	C
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(2S,4R)-4-hydroxy-1-methylpiperidin-2-yl]pyrimidine-4-carboxamide	377	A*
	2-[1-acetyl-4-(benzyloxy)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	495	I

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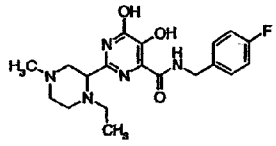
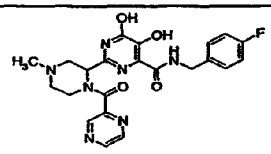
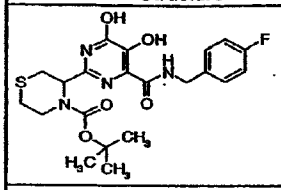
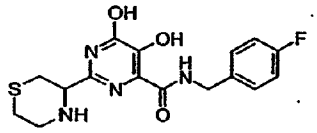
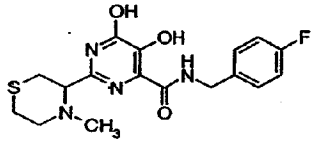
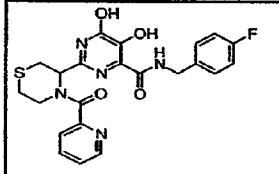
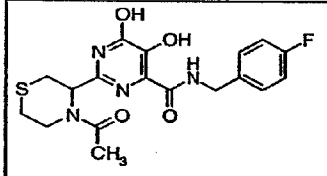
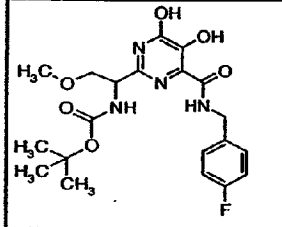
Table 21B

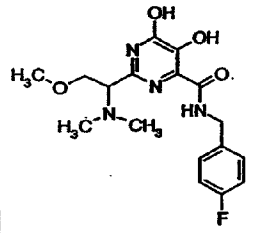
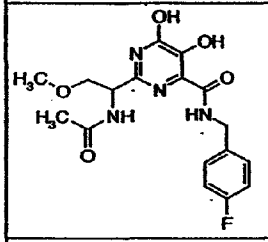
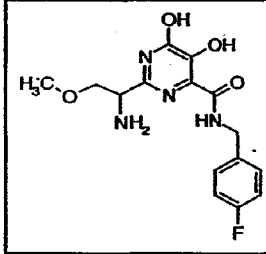
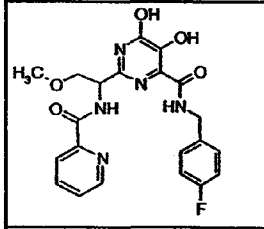
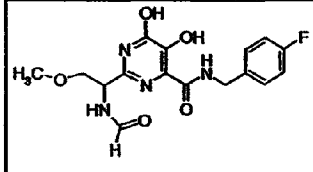
Structure	Name	M+1	Procedure
	2-(1-ethyl-4-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	390	A
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-methyl-1-(pyrazin-2-ylcarbonyl)piperazin-2-yl]pyrimidine-4-carboxamide	468	A

671

Table 22B

Structure	Name	M+1	Procedure
	tert-butyl 3-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)thiomorpholine-4-carboxylate	465	A
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-thiomorpholin-3-ylpyrimidine-4-carboxamide	365	A*
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylthiomorpholin-3-yl)pyrimidine-4-carboxamide	379	C
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-(pyridin-2-ylcarbonyl)thiomorpholin-3-yl]pyrimidine-4-carboxamide	470	I
	2-(4-acetylthiomorpholin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	407	I
	tert-butyl 1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-2-methoxyethylcarbamate	437	A

672

	2-[1-(dimethylamino)-2-methoxyethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	365	C
	2-[1-(acetylamino)-2-methoxyethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	379	I
	2-(1-amino-2-methoxyethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	337	A*
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-methoxy-1-[(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide	442	I
	N-(4-fluorobenzyl)-2-[1-(formylamino)-2-methoxyethyl]-5,6-dihydroxypyrimidine-4-carboxamide	365	A

673

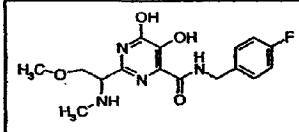
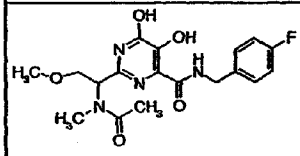
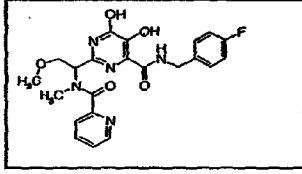
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-methoxy-1-(methylamino)ethyl]pyrimidine-4-carboxamide	352	A
	2-{1-[acetyl(methyl)amino]-2-methoxyethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	393	I
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-methoxy-1-[methyl(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide	456	I

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Table 23B

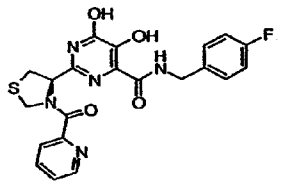
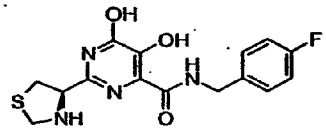
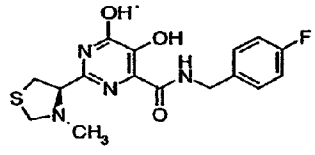
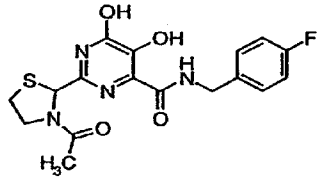
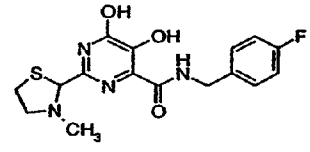
Structure	Name	M+1	Procedure
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(4R)-3-(pyridin-2-ylcarbonyl)-1,3-thiazolidin-4-yl]pyrimidine-4 carboxamide	456	I
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(4R)-1,3-thiazolidin-4-yl]pyrimidine-4 carboxamide	351	A*
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(4R)-3-methyl-1,3-thiazolidin-4-yl]pyrimidine-4-carboxamide	365	C
	2-(3-acetyl-1,3-thiazolidin-2 yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	393	I
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(3-methyl-1,3-thiazolidin-2-yl)pyrimidine-4-carboxamide	365	C

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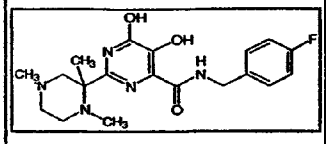
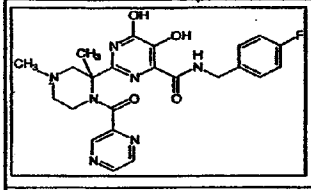
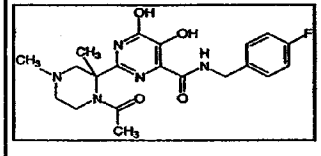
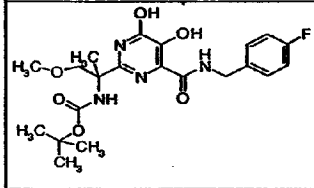
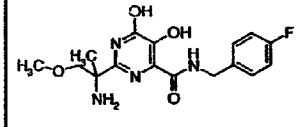
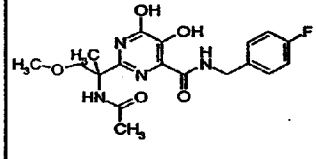
Table 25B

Structure	Name	M+1	Procedure
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1,2,4-trimethylpiperazin-2-yl)pyrimidine-4-carboxamide	390	C
	2-[2,4-dimethyl-1-(pyrazin-2-ylcarbonyl)piperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	482	C
	2-(1-acetyl-2,4-dimethylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	418	C
	tert-butyl 1-(4-[[(4-fluorobenzyl)amino]carbonyl]-5,6-dihydroxypyrimidin-2-yl)-2-methoxy-1-methylethylcarbamate	451	A
	2-(1-amino-2-methoxy-1-methylethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	351	A*
	2-[1-(acetylamino)-2-methoxy-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	393	I

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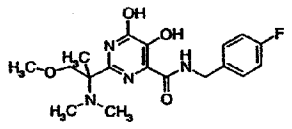
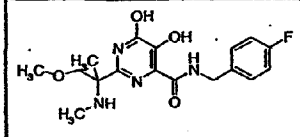
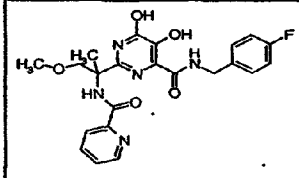
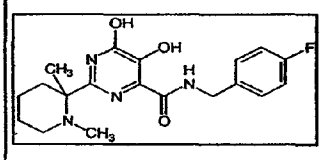
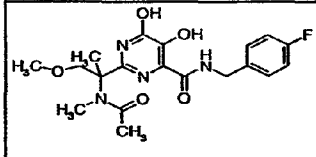
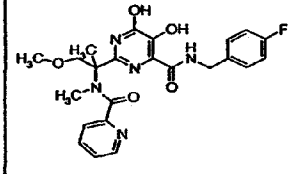
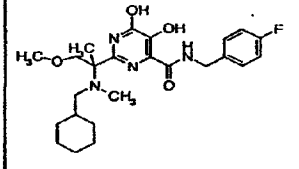
	2-[1-(dimethylamino)-2-methoxy-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	379	C
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-methoxy-1-methyl-1-(methylamino)ethyl]pyrimidine-4-carboxamide	365	C
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-methoxy-1-methyl-1-[(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide	456	G
	2-(1,2-dimethylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	375	C
	2-{1-[acetyl(methyl)amino]-2-methoxy-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	407	I
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-methoxy-1-methyl-1-[methyl(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide	470	I
	2-[1-[(cyclohexylmethyl)(methyl)amino]-2-methoxy-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	461	C

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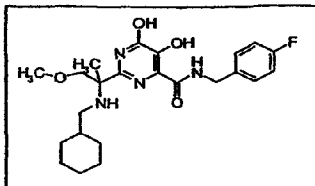
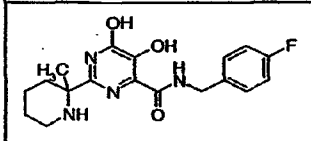
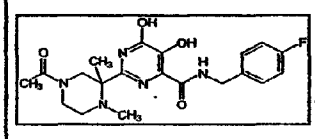
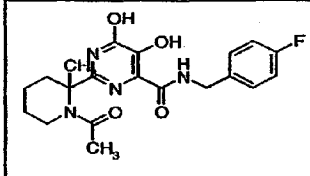
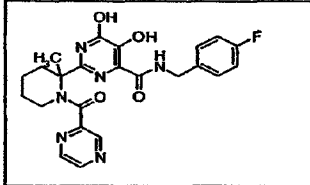
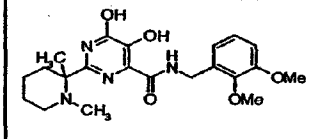
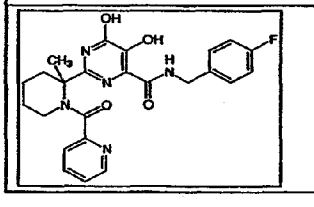
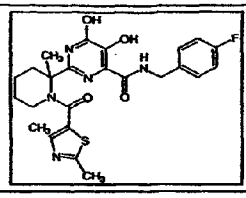
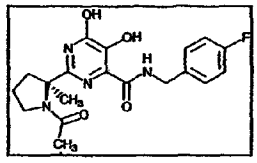
	2-{1-[(cyclohexylmethyl)amino]-2-methoxy-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	447	C
	2-{1-[(cyclohexylmethyl)amino]-2-methoxy-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	361	A*
	2-(4-acetyl-1,2-dimethylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	418	A
	2-(1-acetyl-2-methylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	403	A
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-methyl-1-(pyrazin-2-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide	467	A
	N-(2,3-dimethoxybenzyl)-2-(1,2-dimethylpiperidin-2-yl)-5,6-dihydroxypyrimidine-4-carboxamide	417	C
	N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-methyl-1-(pyridin-2-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide	466	A

678

	2-{1-[(2,4-dimethyl-1,3-thiazol-5-yl)carbonyl]-2-methylpiperidin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	500	A
	2-[(2S)-1-acetyl-2-methylpyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide	389	A

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While the foregoing specification teaches the principles of the present invention, with examples provided for the purpose of illustration, the practice of the invention encompasses all of the usual variations, adaptations and/or modifications that come within the scope of the following claims.

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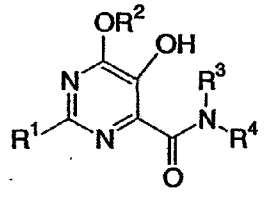
WHAT IS CLAIMED IS:

1. A compound of Formula (I):

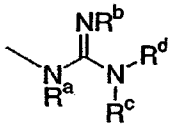


(I);

wherein

R^1 is

(1) -H,

(2) $-C_{1-6}$ alkyl, which is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-C_{0-6}$ alkyl-$N(R^aR^b)$, $N(R^a)-C(=O)-C_{0-6}$ alkyl-$N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, $-N(R^a)-C(=O)R^b$,  , $-N(R^a)C(=O)N(R^bR^c)$, $-N(R^a)C(=O)C(=O)N(R^bR^c)$, or $-N(R^a)C(=O)OR^b$,

(3) $-O-C_{1-6}$ alkyl, which is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-C_{0-6}$ alkyl-$N(R^aR^b)$, $N(R^a)-C(=O)-C_{0-6}$ alkyl-$N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(4) $-R^k$,

(5) $-C_{1-6}$ alkyl-R^k, wherein the alkyl is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-N(R^a)C(=O)-C_{0-6}$ alkyl-$N(R^bR^c)$, or $-N(R^a)-C_{2-6}$ alkyl-OH with the proviso that the -OH is not attached to the carbon alpha to $N(R^a)$,

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(6) $-C_{2-5}$ alkenyl-R^k,

(7) $-C_{2-5}$ alkynyl-R^k,

(8) $-C_{0-6}$ alkyl-O-C_{0-6} alkyl-R^k,

(9) $-C_{0-6}$ alkyl-$S(O)_n$-C_{0-6} alkyl-R^k,

(10) -O-C_{1-6} alkyl-OR^k,

(11) -O-C_{1-6} alkyl-O-C_{1-6} alkyl-R^k,

(12) -O-C_{1-6} alkyl-$S(O)_nR^k$,

(13) $-C_{0-6}$ alkyl-$N(R^a)$-R^k,

(14) $-C_{0-6}$ alkyl-$N(R^a)$-C_{1-6} alkyl-R^k,

(15) $-C_{0-6}$ alkyl-$N(R^a)$-C_{1-6} alkyl-OR^k,

(16) $-C_{0-6}$ alkyl-C(=O)-R^k,

(17) $-C_{0-6}$ alkyl-C(=O)$N(R^a)$-C_{0-6} alkyl-R^k,

(18) $-C_{0-6}$ alkyl-$N(R^a)$C(=O)-C_{0-6} alkyl-R^k,

(19) $-C_{0-6}$ alkyl-$N(R^a)$C(=O)-O-C_{0-6} alkyl-R^k,

(20) $-C_{1-6}$ alkyl which is:

(i) substituted with aryl or -O-aryl, wherein the aryl is optionally substituted with one or more substituents each of which is independently halogen, -OH, $-C_{1-6}$ alkyl, $-C_{1-6}$ alkyl-OR^a, $-C_{1-6}$ haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, methylenedioxy attached to two adjacent carbon atoms, or aryl;

(ii) substituted with $-R^k$, $-C_{1-6}$ alkyl-R^k, $-N(R^a)$-C(=O)-C_{0-6} alkyl-R^k, $-C_{0-6}$ alkyl-$N(R^a)$-C_{0-6} alkyl-R^k, $-C_{0-6}$ alkyl-O-C_{0-6} alkyl-R^k, or $-C_{0-6}$ alkyl-$N(R^a)$-C(=O)-C_{0-6} alkyl-R^k; and

(iii) optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, or $-N(R^aR^b)$, or

(21) $-C_{1-6}$ alkyl, substituted with -O-C_{1-6} alkyl, and with a substituent selected from the group consisting of $-N(R^a)C(=O)R^k$ and $-N(R^a)C_{1-6}$ alkyl-R^k,

R^2 is -H or $-C_{1-6}$ alkyl which is optionally substituted with one or more substituents each of which is independently

(1) halogen,

(2) -OH,

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(3) -CN,
(4) -O-C_{1-6} alkyl,
(5) -O-C_{1-6} haloalkyl,
(6) -C(=O)R^a,
(7) -CO_2R^a,
(8) -SR^a,
(9) -S(=O)R^a,
(10) -N(R^aR^b),
(11) -C(=O)N(R^aR^b),
(12) -N(R^a)-C(=O)-C_{1-6} alkyl-N(R^bR^c),
(13) -SO_2R^a,
(14) -N(R^a)SO_2R^b,
(15) -SO_2N(R^aR^b),
(16) -N(R^a)-C(R^b)=O,
(17) -C_{3-8} cycloalkyl,
(18) aryl, wherein the aryl is optionally substituted with one or more substituents each of which is independently halogen, -C_{1-6} alkyl, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, -C_{0-6} alkyl-N(R^aR^b), or -C_{1-6} alkyl substituted with a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the saturated heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently -C_{1-6} alkyl, oxo, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; or
(19) a 5- to 8-membered monocyclic heterocycle which is saturated or unsaturated and contains from 1 to 4 heteroatoms independently selected from N, O and S; wherein the heterocycle is optionally substituted with one or more substituents each of which is independently -C_{1-6} alkyl, -O-C_{1-6} alkyl, oxo, phenyl, or naphthyl;

R^3 is -H or -C_{1-6} alkyl;

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R^4 is

(1) H,

(2) C_{1-6} alkyl which is optionally substituted with one or more substituents each of which is independently halogen, -OH, O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, -NO_2, -N(R^aR^b), -C(=O)R^a, -CO_2R^a, -SR^a, -S(=O)R^a, -SO_2R^a, or -N(R^a)CO_2R^b,

(3) C_{1-6} alkyl which is optionally substituted with one or more substituents each of which is independently halogen, -OH, or O-C_{1-4} alkyl, and which is substituted with 1 or 2 substituents each of which is independently:

(i) C_{3-8} cycloalkyl,

(ii) aryl,

(iii) a fused bicyclic carbocycle consisting of a benzene ring fused to a C_{5-7} cycloalkyl,

(iv) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S,

(v) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or

(vi) a 9- or 10-membered fused bicyclic heterocycle containing from 1 to 4 heteroatoms independently selected from N, O and S, wherein at least one of the rings is aromatic,

(4) C_{2-5} alkynyl optionally substituted with aryl,

(5) C_{3-8} cycloalkyl optionally substituted with aryl,

(6) aryl,

(7) a fused bicyclic carbocycle consisting of a benzene ring fused to a C_{5-7} cycloalkyl,

(8) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S,

(9) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or

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(10) a 9- or 10-membered fused bicyclic heterocycle containing from 1 to 4 heteroatoms independently selected from N, O and S, wherein at least one of the rings is aromatic;

wherein

each aryl in (3)(ii) or the aryl (4), (5) or (6) or each fused carbocycle in (3)(iii) or the fused carbocycle in (7) is optionally substituted with one or more substituents each of which is independently halogen, -OH, -C_{1-6} alkyl, -C_{1-6} alkyl-OR^a, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, -CN, -NO_2, -$N(R^aR^b)$, -C_{1-6} alkyl-$N(R^aR^b)$, -C(=O)$N(R^aR^b)$, -C(=O)R^a, -CO_2R^a, -C_{1-6} alkyl-CO_2R^a, -OCO_2R^a, -SR^a, -S(=O)R^a, -SO_2R^a, -$N(R^a)SO_2R^b$, -$SO_2N(R^aR^b)$, -$N(R^a)C(=O)R^b$, -$N(R^a)CO_2R^b$, -C_{1-6} alkyl-$N(R^a)CO_2R^b$, aryl, -C_{1-6} alkyl-aryl, -O-aryl, or -C_{0-6} alkyl-het wherein het is a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, and het is optionally fused with a benzene ring, and is optionally substituted with one or more substituents each of which is independently -C_{1-6} alkyl, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, oxo, or -CO_2R^a;

each saturated heterocyclic ring in (3)(iv) or the saturated heterocyclic ring in (8) is optionally substituted with one or more substituents each of which is independently halogen, -C_{1-6} alkyl, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, oxo, aryl, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

each heteroaromatic ring in (3)(v) or the heteroaromatic ring in (9) or each fused bicyclic heterocycle in (3)(vi) or the fused bicyclic heterocycle in (10) is optionally substituted with one or more substituents each of which is independently halogen, -C_{1-6} alkyl, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, oxo, aryl, or -C_{1-6} alkyl-aryl;

or alternatively R^3 and R^4 together with the N to which both are attached form a C_{3-7} azacycloalkyl which is optionally substituted with one or more substituents each of which is independently -C_{1-6} alkyl or oxo;

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each R^a, R^b, R^c, and R^d is independently -H or -C_{1-6} alkyl;

R^k is carbocycle or heterocycle, wherein the carbocycle or heterocycle is optionally substituted with one or more substituents each of which is independently

(1) halogen,
(2) -OH,
(3) -CN,
(4) -C_{1-6} alkyl, which is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, -C(=O)R^a, -CO_2R^a, -SR^a, -S(=O)R^a, -N(R^aR^b), -C(=O)-$(CH_2)_{0-2}$N(R^aR^b), N(R^a)-C(=O)-$(CH_2)_{0-2}$N(R^bR^c), -SO_2R^a, -N(R^a)SO_2R^b, -SO_2N(R^aR^b), or -N(R^a)-C(R^b)=O,
(5) -O-C_{1-6} alkyl, which is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, -C(=O)R^a, -CO_2R^a, -SR^a, -S(=O)R^a, -N(R^aR^b), -C(=O)-$(CH_2)_{0-2}$N(R^aR^b), N(R^a)-C(=O)-$(CH_2)_{0-2}$N(R^bR^c), -SO_2R^a, -N(R^a)SO_2R^b, -SO_2N(R^aR^b), or -N(R^a)-C(R^b)=O,
(6) -NO_2,
(7) oxo,
(8) ethylenedioxy, spiro substituted on a ring carbon in a saturated ring of R^k;
(9) -C(=O)R^a,
(10) -CO_2R^a,
(11) -SR^a,
(12) -S(=O)R^a,
(13) -N(R^aR^b),
(14) -C(=O)N(R^aR^b),
(15) -C(=O)-C_{1-6} alkyl-N(R^aR^b),
(16) -N(R^a)C(=O)R^b,
(17) -SO_2R^a,

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(18) $-SO_2N(R^aR^b)$,

(19) $-N(R^a)SO_2R^b$,

(20) $-R^m$,

(21) $-C_{1-6}$ alkyl-R^m, wherein the alkyl is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, $-C_{1-6}$ haloalkyl, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(22) $-C_{0-6}$ alkyl-$N(R^a)$-C_{0-6} alkyl-R^m,

(23) $-C_{0-6}$ alkyl-O-C_{0-6} alkyl-R^m,

(24) $-C_{0-6}$ alkyl-S-C_{0-6} alkyl-R^m,

(25) $-C_{0-6}$ alkyl-C(=O)-C_{0-6} alkyl-R^m,

(26) $-C(=O)-O-C_{0-6}$ alkyl-R^m,

(27) $-C(=O)N(R^a)-C_{0-6}$ alkyl-R^m,

(28) $-N(R^a)C(=O)-R^m$,

(29) $-N(R^a)C(=O)-C_{1-6}$ alkyl-R^m, wherein the alkyl is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, $-C_{1-6}$ haloalkyl, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(30) $-N(R^a)-C(=O)-N(R^b)-C_{0-6}$ alkyl-R^m,

(31) $-N(R^a)-C(=O)-O-C_{0-6}$ alkyl-R^m, or

(32) $-N(R^a)-C(=O)-N(R^b)-SO_2-C_{0-6}$ alkyl-R^m;

carbocycle in R^k is (i) a C_3 to C_8 monocyclic, saturated or unsaturated ring, (ii) a C_7 to C_{12} bicyclic ring system, or (iii) a C_{11} to C_{16} tricyclic ring system, wherein each ring in (ii) or (iii) is independent of or fused to the other ring or rings and each ring is saturated or unsaturated;

heterocycle in R^k is (i) a 4- to 8-membered, saturated or unsaturated monocyclic ring, (ii) a 7- to 12-membered bicyclic ring system, or (iii) an 11 to 16-membered tricyclic ring system; wherein each ring in (ii) or (iii) is independent of or fused to or bridged

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with or spiro to the other ring or rings and each ring is saturated or unsaturated; the monocyclic ring, bicyclic ring system, or tricyclic ring system contains from 1 to 6 heteroatoms selected from N, O and S and a balance of carbon atoms; and wherein any one or more of the nitrogen and sulfur heteroatoms is optionally be oxidized, and any one or more of the nitrogen heteroatoms is optionally quaternized;

each R^m is independently C_{3-8} cycloalkyl; aryl; a 5- to 8-membered monocyclic heterocycle which is saturated or unsaturated and contains from 1 to 4 heteroatoms independently selected from N, O and S; or a 9- to 10-membered bicyclic heterocycle which is saturated or unsaturated and contains from 1 to 4 heteroatoms independently selected from N, O and S; wherein any one or more of the nitrogen and sulfur heteroatoms in the monocyclic or bicyclic heterocycle is optionally oxidized and any one or more of the nitrogen heteroatoms is optionally quaternized; and wherein

the cycloalkyl or the aryl is optionally substituted with one or more substituents each of which is independently halogen, $-C_{1-6}$ alkyl, $-C_{1-6}$ haloalkyl, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-N(R^aR^b)$, aryl, or $-C_{1-6}$ alkyl-aryl; and

the monocyclic or bicyclic heterocycle is optionally substituted with one or more substituents each of which is independently halogen, $-C_{1-6}$ alkyl optionally substituted with $-O-C_{1-6}$ alkyl, $-C_{1-6}$ haloalkyl, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, oxo, aryl, $-C_{1-6}$ alkyl-aryl, -C(=O)-aryl, $-CO_2$-aryl, $-CO_2-C_{1-6}$ alkyl-aryl, a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

each n is independently an integer equal to zero, 1 or 2;

or a pharmaceutically acceptable salt thereof.

2. The compound according to claim 1, wherein R^1 is:

(1) -H,

(2) $-C_{1-6}$ alkyl, which is optionally substituted with from 1 to 5 substituents each of which is independently halogen, -OH, -CN,

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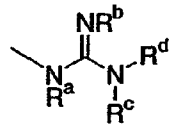
-O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -C(=O)R^a, -CO_2R^a, -SR^a, -S(=O)R^a, -N(R^aR^b), -C(=O)-$(CH_2)_{0-2}$N(R^aR^b), N(R^a)-C(=O)-$(CH_2)_{0-2}$N(R^bR^c), -SO_2R^a, -N(R^a)SO_2R^b,



-SO_2N(R^aR^b), -N(R^a)-C(=O)R^b, ,

-N(R^a)C(=O)N(R^bR^c), -N(R^a)C(=O)C(=O)N(R^bR^c), or -N(R^a)C(=O)OR^b,

(3) -R^k,

(4) -C_{1-4} alkyl-R^k, wherein the alkyl is optionally substituted with 1 or 2 substituents each of which is independently halogen, -OH, -CN, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -N(R^aR^b), or -N(R^a)-$(CH_2)_{2-4}$-OH,

(5) -O-$(CH_2)_{0-3}$-R^k,

(6) -C_{1-4} alkyl-O-$(CH_2)_{0-3}$-R^k,

(7) -$(CH_2)_{0-3}$-S(O)$_n$-$(CH_2)_{0-3}$-R^k,

(8) -O-$(CH_2)_{1-3}$-OR^k,

(9) -O-$(CH_2)_{1-3}$-O-$(CH_2)_{1-3}$-R^k,

(10) -O-$(CH_2)_{1-3}$-S(O)$_nR^k$,

(11) -$(CH_2)_{0-3}$-N(R^a)-R^k,

(12) -$(CH_2)_{0-3}$-N(R^a)-$(CH_2)_{1-3}$-R^k,

(13) -$(CH_2)_{0-3}$-N(R^a)-$(CH_2)_{1-3}$-OR^k,

(14) -$(CH_2)_{0-3}$-C(=O)-R^k,

(15) -$(CH_2)_{0-3}$-C(=O)N(R^a)-$(CH_2)_{0-3}$-R^k,

(16) -$(CH_2)_{0-3}$-N(R^a)C(=O)-$(CH_2)_{0-3}$-R^k,

(17) -$(CH_2)_{0-3}$-N(R^a)C(=O)-O-$(CH_2)_{0-3}$-R^k,

(18) -C_{1-6} alkyl which is:

(i) substituted with aryl or -O-aryl, wherein the aryl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, -OH, -C_{1-4} alkyl, -C_{1-4} alkyl-OR^a, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, methylenedioxy attached to two adjacent carbon atoms, or aryl;

(ii) substituted with -R^k, -$(CH_2)_{1-3}$-R^k, -N(R^a)-C(=O)-$(CH_2)_{0-3}$-R^k, -$(CH_2)_{0-3}$-N(R^a)-$(CH_2)_{0-3}$-R^k,

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or $-(CH_2)_{0-3}-O-(CH_2)_{0-3}-R^k$, or
$-(CH_2)_{0-3}-N(R^a)-C(=O)-(CH_2)_{0-3}-R^k$; and

(iii) optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, or $-N(R^aR^b)$,

(19) $-C(CH_3)_2N(R^a)C(=O)OCH_2R^k$,

(20) $-C(CH_3)_2N(R^a)CH_2R^k$,

(21) $-C(CH_3)_2N(R^a)C(=O)R^k$,

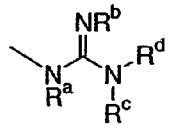
(22) $-C(R^b)(N(R^a)C(=O)R^k)(CH_2OR^c)$, or

(23) $-C(R^b)(N(R^a)(CH_2)-R^k)(CH_2OR^c)$,

or a pharmaceutically acceptable salt thereof.

3. The compound according to claim 2, wherein R^1 is:

(1) -H,

(2) $-C_{1-4}$ alkyl, which is optionally substituted with from 1 to 3 substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, $-N(R^a)-C(=O)R^b$,  , $-N(R^a)C(=O)N(R^bR^c)$, $-N(R^a)C(=O)C(=O)N(R^bR^c)$, or $-N(R^a)C(=O)OR^b$,

(3) $-R^k$,

(4) $-CH(CH_3)-R^k$,

(5) $-(CH_2)_{1-4}-R^k$, wherein the $-(CH_2)_{1-4}-$ moiety is optionally substituted with one of $-N(R^aR^b)$ or $-N(R^a)-(CH_2)_2-OH$,

(6) $-(CH_2)_{1-2}-O-(CH_2)_{0-1}-R^k$,

(7) $-(CH_2)_{1-2}-S(O)_n-(CH_2)_{0-1}-R^k$,

(8) $-O-(CH_2)_{1-2}-OR^k$,

(9) $-O-(CH_2)_{1-2}-O-(CH_2)_{1-2}-R^k$,

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(10) $-O-(CH_2)_{1-2}-S(O)_nR^k$,
(11) $-(CH_2)_{1-2}-N(R^a)-R^k$,
(12) $-(CH_2)_{1-2}-N(R^a)-(CH_2)_{1-3}-R^k$,
(13) $-(CH_2)_{1-2}-N(R^a)-(CH_2)_{1-3}-OR^k$,
(14) $-(CH_2)_{0-2}-C(=O)-R^k$,
(15) $-C(=O)N(R^a)-(CH_2)_{1-2}-R^k$,
(16) $-(CH_2)_{0-2}-C(=O)N(R^a)-(CH_2)_{0-2}-R^k$,
(17) $-(CH_2)_{1-2}-N(R^a)C(=O)-(CH_2)_{0-1}-R^k$,
(18) $-(CH_2)_{1-2}-N(R^a)C(=O)-O-(CH_2)_{0-1}-R^k$,
(19) $-C_{1-4}$ alkyl which is:
(i) substituted with aryl or -O-aryl wherein the aryl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, chloro, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, methylenedioxy attached to two adjacent carbon atoms, or phenyl;
(ii) substituted with $-R^k$, $-(CH_2)_{1-3}-R^k$, $-N(R^a)-C(=O)-(CH_2)_{0-3}-R^k$, $-N(R^a)-(CH_2)_{1-3}-R^k$, $-O-(CH_2)_{1-2}-R^k$, or $-N(R^a)-C(=O)-(CH_2)_{0-2}-R^k$; and
(iii) optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, or $-N(R^aR^b)$,
(20) $-C(CH_3)_2N(R^a)C(=O)OCH_2R^k$,
(21) $-C(CH_3)_2N(R^a)CH_2R^k$,
(22) $-C(CH_3)_2N(R^a)C(=O)R^k$,
(23) $-C(R^b)(N(R^a)C(=O)R^k)(CH_2OR^c)$, or
(24) $-C(R^b)(N(R^a)(CH_2)-R^k)(CH_2OR^c)$,

or a pharmaceutically acceptable salt thereof.

4. The compound according to claim 1, wherein

R^k is C_{3-8} cycloalkyl; aryl selected from phenyl and naphthyl; a bicyclic carbocycle selected from indanyl and tetrahydronaphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms

independently selected from N, O and S; or a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered saturated or unsaturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S;

wherein the cycloalkyl, aryl, bicyclic carbocycle, saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle is optionally substituted with from 1 to 4 substituents each of which is independently

(1) halogen,

(2) -OH,

(3) -CN,

(4) $-C_{1-4}$ haloalkyl,

(5) $-C_{1-4}$ alkyl, which is optionally substituted with from 1 to 3 substituents each of which is independently -OH, -CN, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(6) $-O-C_{1-4}$ haloalkyl

(7) $-O-C_{1-4}$ alkyl, which is optionally substituted with from 1 to 3 substituents each of which is independently -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(8) $-NO_2$,

(9) oxo,

(10) $-C(=O)R^a$,

(11) $-CO_2R^a$,

(12) $-SR^a$,

(13) $-S(=O)R^a$,

(14) $-N(R^aR^b)$,

(15) $-C(=O)N(R^aR^b)$,

(16) $-C(=O)-C_{1-6}$ alkyl$-N(R^aR^b)$,

(17) $-N(R^a)C(=O)R^b$,

(18) $-SO_2R^a$,

(18) $-SO_2N(R^aR^b)$,

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(19) $-N(R^a)SO_2R^b$,

(20) $-R^m$,

(21) $-CH(CH_3)-R^m$,

(22) $-(CH_2)_{1-4}-R^m$,

(23) $-(CH_2)_{0-2}-N(R^a)-(CH_2)_{0-2}-R^m$,

(24) $-(CH_2)_{0-2}-O-(CH_2)_{0-2}-R^m$,

(25) $-(CH_2)_{0-2}-S-(CH_2)_{0-2}-R^m$,

(26) $-(CH_2)_{0-2}-C(=O)-(CH_2)_{0-2}-R^m$,

(27) $-C(=O)-O-(CH_2)_{0-2}-R^m$,

(28) $-C(=O)N(R^a)-R^m$,

(29) $-N(R^a)C(=O)-R^m$,

(30) $-N(R^a)C(=O)-(CH_2)_{1-3}-R^m$, wherein the $-(CH_2)_{1-3}-$ moiety is optionally substituted with one of $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(31) $-N(R^a)-C(=O)-N(R^b)-(CH_2)_{1-2}-R^m$,

(32) $-N(R^a)-C(=O)-O-(CH_2)_{1-2}-R^m$, or

(33) $-N(R^a)-C(=O)-N(R^b)SO_2-R^m$;

or a pharmaceutically acceptable salt thereof.

5. The compound according to claim 4, wherein

each R^m is independently C_{5-7} cycloalkyl; aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; or a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered, saturated or unsaturated heterocyclic ring containing from 1 to 3 heteroatoms selected from N, O and S; wherein

the cycloalkyl or the aryl is optionally substituted with from 1 to 4 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-N(R^aR^b)$, phenyl, or $-(CH_2)_{1-2}$-phenyl;

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the saturated heterocyclic ring is optionally substituted with from 1 to 4 substituents each of which is independently -C_{1-4} alkyl optionally substituted with -O-C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, oxo, phenyl, -$(CH_2)_{1-2}$-phenyl, -C(=O)-phenyl, -CO_2-phenyl, -CO_2-$(CH_2)_{1-2}$-phenyl, a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

the heteroaromatic ring or the bicyclic heterocycle is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, oxo, phenyl, or -$(CH_2)_{1-2}$-phenyl;

or a pharmaceutically acceptable salt thereof.

6. The compound according to claim 4, wherein

R^k is cycloalkyl selected from cyclopropyl, cyclopentyl and cyclohexyl; aryl selected from phenyl and naphthyl; a bicyclic carbocycle selected from indanyl and tetrahydronaphthyl; a 5- or 6-membered saturated heterocyclic ring selected from pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl, pyranyl, tetrahydrofuranyl, imidazolidinyl, thiomorpholinyl, thiazolidinyl, isothiazolidinyl, oxazolidinyl, isooxazolidinyl, and pyrazolidinyl; a 5- or 6-membered heteroaromatic ring selected from thienyl, pyridyl, imidazolyl, pyrrolyl, pyrazolyl, thiazolyl, isothiazolyl, thiadiazolyl, oxopiperidinyl, oxazolyl, isooxazolyl, oxadiazolyl, pyrazinyl, pyrimidinyl, triazolyl, tetrazolyl, furanyl, and pyridazinyl; or a bicyclic heterocycle selected from indolyl, indolinyl, tetrahydroquinolinyl, quinolinyl, 1,4-dioxa-8-azaspiro[4.5]decyl, azabicyclo[2.2.1]heptyl, azabicyclo[2.1.1]hexyl, tetrahydroisoquinolinyl, isoquinolinyl, 2,3-dihydrobenzofuranyl, 2,3-dihydrobenzo-1,4-dioxinyl, and benzo-1,3-dioxolyl;

wherein the cycloalkyl, aryl, bicyclic carbocycle, saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle is optionally substituted with from 1 to 3 substituents each of which is independently

(1) fluoro,

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(2) chloro,

(3) bromo,

(4) $-CF_3$,

(5) $-C_{1-4}$ alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, -CN, $-O-C_{1-4}$ alkyl, $-OCF_3$, $-N(R^aR^b)$, $-C(=O)N(R^aR^b)$, or $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$,

(6) $-OCF_3$,

(7) $-O-C_{1-4}$ alkyl

(8) $-NO_2$,

(9) oxo,

(10) $-C(=O)R^a$,

(11) $-CO_2R^a$,

(12) $-SR^a$,

(13) $-S(=O)R^a$,

(14) $-N(R^aR^b)$,

(15) $-C(=O)N(R^aR^b)$,

(16) $-C(=O)-(CH_2)_{1-2}-N(R^aR^b)$,

(17) $-N(R^a)C(=O)R^b$,

(18) $-SO_2R^a$,

(19) $-R^m$,

(20) $-CH(CH_3)-R^m$,

(21) $-CH_2-R^m$,

(22) $-(CH_2)_{0-2}-N(R^a)-(CH_2)_{0-2}-R^m$,

(23) $-O-(CH_2)_{1-2}-R^m$,

(24) $-(CH_2)_{0-1}-S-(CH_2)_{0-2}-R^m$,

(25) $-(CH_2)_{0-1}-C(=O)-(CH_2)_{0-2}-R^m$,

(26) $-(CH_2)_{0-1}-C(=O)-O-(CH_2)_{0-2}-R^m$,

(27) $-C(=O)N(R^a)-R^m$,

(28) $-N(R^a)C(=O)-R^m$,

(29) $-N(R^a)C(=O)-(CH_2)_{1-2}-R^m$, wherein the $-(CH_2)_{1-2}-$ moiety is optionally substituted with $-N(R^aR^b)$,

(30) $-N(R^a)-C(=O)-N(R^b)-(CH_2)_{1-2}-R^m$,

(31) $-N(R^a)-C(=O)-O-(CH_2)_{1-2}-R^m$,

(32) $-N(R^a)-C(=O)-N(R^b)SO_2-R^m$,

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(33) -OH;

or a pharmaceutically acceptable salt thereof.

7. The compound according to claim 6, wherein

each R^m is independently aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring selected from pyrrolidinyl, imidazolidinyl, pyrazolidinyl, piperidinyl, piperazinyl, thiazolidinyl, and morpholinyl; or a 5- or 6-membered heteroaromatic ring selected from thienyl, pyridyl, imidazolyl, pyrrolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isooxazolyl, oxadiazolyl, thiadiazolyl, pyrazinyl, pyrimidinyl, triazolyl, tetrazolyl, furanyl, and pyridazinyl; wherein

the aryl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, or $-N(R^aR^b)$;

the saturated heterocyclic ring is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, oxo, phenyl, $-(CH_2)_{1-2}$-phenyl, -C(=O)-phenyl, $-CO_2$-phenyl, or $-CO_2-CH_2$-phenyl; and

the heteroaromatic ring is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, oxo, phenyl, or $-(CH_2)_{1-2}$-phenyl;

or a pharmaceutically acceptable salt thereof.

8. The compound according to claim 1, wherein R^2 is -H or $-C_{1-6}$ alkyl which is optionally substituted with one of:

(1) $-N(R^aR^b)$,

(2) phenyl which is optionally substituted with from 1 to 4 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, or $-C_{0-6}$ alkyl-$N(R^aR^b)$, or

(3) a 5- or 6-membered saturated monocyclic heterocycle which contains from 1 to 4 heteroatoms independently selected from N, O and S; wherein the heterocycle is optionally substituted

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with from 1 to 4 substituents each of which is independently $-C_{1-6}$ alkyl, $-O-C_{1-6}$ alkyl, oxo, or phenyl;

or a pharmaceutically acceptable salt thereof.

9. The compound according to claim 8, wherein R^2 is

(1) -H,

(2) $-C_{1-4}$ alkyl,

(3) $-(CH_2)_{1-3}-N(R^aR^b)$,

(4) $-(CH_2)_{1-3}$-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, chloro, bromo, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, or $-(CH_2)_{1-3}-N(R^aR^b)$; or

(5) $-(CH_2)_{1-3}R^t$, wherein R^t is a 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S;

or a pharmaceutically acceptable salt thereof.

10. The compound according to claim 9, wherein R^2 is -H or methyl; or a pharmaceutically acceptable salt thereof.

11. The compound according to claim 10, wherein R^2 is -H; or a pharmaceutically acceptable salt thereof.

12. The compound according to claim 1, wherein R^3 is -H or $-C_{1-4}$ alkyl; or a pharmaceutically acceptable salt thereof.

13. The compound according to claim 12, wherein R^3 is -H or methyl; or a pharmaceutically acceptable salt thereof.

14. The compound according to claim 13, wherein R^3 is -H; or a pharmaceutically acceptable salt thereof.

15. The compound according to claim 1, wherein R^4 is

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(1) C_{1-4} alkyl,

(2) C_{1-4} alkyl substituted with from 1 to 3 substituents each of which is independently -OH, O-C_{1-4} alkyl, or -O-C_{1-4} haloalkyl,

(3) C_{1-4} alkyl which is substituted with an aryl or with two aryls which are the same or different, and is optionally substituted with -OH,

(4) C_{1-4} alkyl substituted with one of:

(i) C_{5-7} cycloalkyl,

(ii) a fused bicyclic carbocycle consisting of a benzene ring fused to a C_{5-7} cycloalkyl,

(iii) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S,

(iv) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or

(v) a 9- or 10-membered fused bicyclic heterocycle containing from 1 to 4 heteroatoms independently selected from N, O and S, wherein at least one of the rings is aromatic;

(5) C_{2-4} alkynyl optionally substituted with aryl,

(6) C_{3-7} cycloalkyl optionally substituted with aryl,

(7) aryl,

(8) a fused bicyclic carbocycle consisting of a benzene ring fused to a C_{5-7} cycloalkyl,

(9) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S,

(10) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or

(11) a 9- or 10-membered fused bicyclic heterocycle containing from 1 to 4 heteroatoms independently selected from N, O and S, wherein at least one of the rings is aromatic;

wherein

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each aryl in (3) or the aryl in (5), (6) or (7) or the fused carbocycle in (4)(ii) or (8) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -C_{1-4} alkyl, -C_{1-4} alkyl-OR^a, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -CN, -NO_2, -$N(R^aR^b)$, -C_{1-4} alkyl-$N(R^aR^b)$, -C(=O)$N(R^aR^b)$, -C(=O)R^a, -CO_2R^a, -C_{1-4} alkyl-CO_2R^a, -OCO_2R^a, -SR^a, -S(=O)R^a, -SO_2R^a, -$N(R^a)SO_2R^b$, -$SO_2N(R^aR^b)$, -$N(R^a)C(=O)R^b$, -$N(R^a)CO_2R^b$, -C_{1-4} alkyl-$N(R^a)CO_2R^b$, phenyl, -C_{1-4} alkyl-phenyl, -O-phenyl, or -$(CH_2)_{0-2}$-het wherein het is a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, and het is optionally fused with a benzene ring, and is optionally substituted with 1 or 2 substituents each of which is independently -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, or -CO_2R^a;

the saturated heterocyclic ring in (4)(iii) or (9) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, oxo, phenyl, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

the heteroaromatic ring in (4)(iv) or (10) or the fused bicyclic heterocycle in (4)(v) or (11) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, oxo, or phenyl;

or a pharmaceutically acceptable salt thereof.

16. The compound according to claim 15, wherein R^4 is:

(1) C_{1-3} alkyl substituted with 1 or 2 phenyls, and is optionally substituted with an -OH,

(2) C_{1-4} alkyl substituted with one of:

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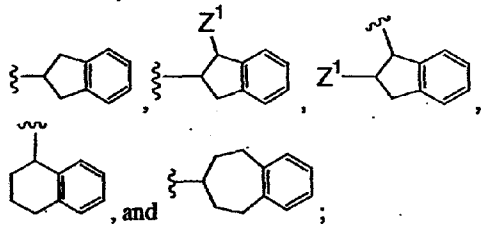
(i) cyclohexyl,

(ii) naphthyl,

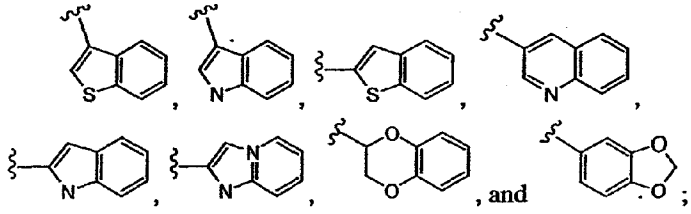
(iii) a fused bicyclic carbocycle selected from



(iv) a saturated heterocyclic ring containing from zero to 1 oxygen atoms and from 1 to 3 nitrogen atoms,

(v) a 5- or 6-membered heteroaromatic ring containing from zero to 1 heteroatoms selected from O and S and from 1 to 3 nitrogen atoms, or

(vi) a fused bicyclic heterocycle selected from

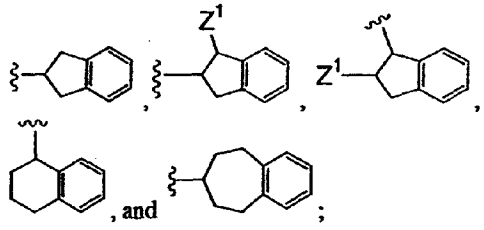


(3) $-(CH_2)_{1-2}-C{\equiv}C-R^u$ wherein R^u is H or phenyl,

(4) C_{3-6} cycloalkyl optionally substituted with phenyl,

(5) phenyl or naphthyl,

(6) a fused bicyclic carbocycle selected from



(7) a saturated heterocyclic ring containing from zero to 1 oxygen atoms and from 1 to 3 nitrogen atoms,

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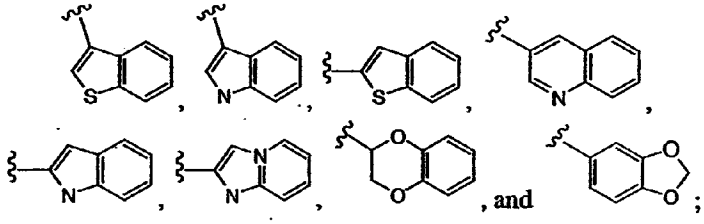
(8) a 5- or 6-membered heteroaromatic ring containing from zero to 1 heteroatoms selected from O and S and from 1 to 3 nitrogen atoms, or

(9) a fused bicyclic heterocycle selected from



wherein Z^1 is -H or -OH;

each phenyl in (1) or the phenyl in (3) or (4) or (5) or the naphthyl in (2)(ii) or (5) is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, $-NO_2$, $-(CH_2)_{1-2}-N(R^aR^b)$, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)CO_2R^b$; and is additionally and optionally mono-substituted with phenyl, $-(CH_2)_{1-2}$-phenyl, -O-phenyl, or $-(CH_2)_{0-2}$-het wherein het is thiadiazolyl or indolyl, and het is optionally substituted with $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-6}$ alkyl, $-OCF_3$, or $-CO_2R^a$;

the saturated heterocyclic ring in (2)(iv) or (7) is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, oxo; and is additionally and optionally mono-substituted with phenyl or a heteroaromatic ring selected from pyridyl, pyrimidinyl, and pyrazinyl; and

the heteroaromatic ring in (2)(v) or (8) is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, or oxo; and is additionally and optionally mono-substituted with phenyl;

or a pharmaceutically acceptable salt thereof.

17. The compound according to claim 15, wherein R^4 is:

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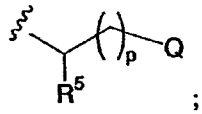

;

wherein

Q is

(1) ethynyl optionally substituted with aryl,

(2) C_{5-7} cycloalkyl,

(3) aryl,

(4) a fused bicyclic carbocycle consisting of a benzene ring fused to a C_{5-7} cycloalkyl,

(5) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S,

(6) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or

(7) a 9- or 10-membered fused bicyclic heterocycle containing from 1 to 4 heteroatoms independently selected from N, O and S, wherein at least one of the rings is aromatic;

wherein

aryl in (1) or (3) or the fused carbocycle in (4) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ alkyl-OR^a, $-C_{1-4}$ haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -CN, $-NO_2$, $-N(R^aR^b)$, $-C_{1-4}$ alkyl-$N(R^aR^b)$, $-C(=O)N(R^aR^b)$, $-C(=O)R^a$, $-CO_2R^a$, $-C_{1-4}$ alkyl-CO_2R^a, $-OCO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, $-N(R^a)C(=O)R^b$, $-N(R^a)CO_2R^b$, $-C_{1-4}$ alkyl-$N(R^a)CO_2R^b$, phenyl, $-C_{1-4}$ alkyl-phenyl, -O-phenyl, or $-(CH_2)_{0-2}$-het wherein het is a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, and het is optionally fused with a benzene ring, and is optionally substituted with $-C_{1-4}$ alkyl, $-C_{1-4}$ haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, or $-CO_2R^a$;

the saturated heterocyclic ring in (5) is optionally substituted with from 1 to 4 substituents each of which is independently halogen,

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-C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, oxo, phenyl, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

the heteroaromatic ring in (6) or the fused bicyclic heterocycle in (7) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, oxo, or phenyl;

R^5 is H, methyl, or CH_2OH, with the proviso that when R^5 is CH_2OH, then Q is aryl; and

p is an integer equal to zero, 1 or 2;

or a pharmaceutically acceptable salt thereof.

18. The compound according to claim 17, wherein Q is

(1) —C≡C-R^u wherein R^u is H or phenyl,
(2) phenyl or naphthyl,
(3) cyclopentyl or cyclohexyl,
(4) a fused bicyclic carbocycle selected from the group consisting of indanyl, tetrahydronaphthalenyl, and benzocycloheptyl,
(5) a saturated heterocyclic ring selected from the group consisting of tetrahydrofuranyl, pyrrolidinyl, imidazolidinyl, piperidinyl, piperazinyl, morpholinyl, thiomorpholinyl, thiazolidinyl, isothiazolidinyl, oxazolidinyl, isooxazolidinyl, and pyrazolidinyl,
(6) a heteroaromatic ring selected from the group consisting of thienyl, pyridyl, imidazolyl, pyrrolyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isooxazolyl, oxadiazolyl, pyrazinyl, pyrimidinyl, triazolyl, tetrazolyl, furanyl, and pyridazinyl, or
(7) a fused bicyclic heterocycle selected from the group consisting of benzothiophenyl, indolyl, pyridoimidazolyl, indazolyl, 2,3-dihydrobenzo-1,4-dioxinyl, dihydrobenzofuranyl, benzo-1,3-dioxolyl, quinolinyl, and isoquinolinyl;

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wherein

the phenyl in (1) or the phenyl or naphthyl in (2) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -CN, -NO_2, -C_{1-4} alkyl-N(R^aR^b), -C(=O)R^a, -CO_2R^a, -C_{1-4} alkyl-CO_2R^a, -SR^a, -S(=O)R^a, -SO_2R^a, -N(R^a)SO_2R^b, -SO_2N(R^aR^b), -N(R^a)CO_2R^b, -C_{1-4} alkyl-N(R^a)CO_2R^b, phenyl, -$(CH_2)_{1-2}$-phenyl, -O-phenyl, or -$(CH_2)_{0-2}$-het wherein het is pyrrolyl, pyrazolyl, imidazolyl, triazolyl, thiazolyl, oxazolyl, isothiazolyl, isooxazolyl, pyridyl, pyrazinyl, thiadiazolyl or indolyl, and het is optionally substituted with -C_{1-4} alkyl, -CF_3, -O-C_{1-6} alkyl, -OCF_3, oxo, or -CO_2R^a;

the fused carbocycle in (4) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -C_{1-4} alkyl-N(R^aR^b), -C(=O)R^a, -CO_2R^a, -SR^a, -S(=O)R^a, -SO_2R^a, -N(R^a)CO_2R^b, phenyl, -$(CH_2)_{1-2}$-phenyl, or -O-phenyl;

the saturated heterocyclic ring in (5) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, oxo, phenyl, pyridyl, pyrazinyl, or pyrimidinyl; and

the heteroaromatic ring in (6) or the fused bicyclic heterocycle in (7) is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, oxo, or phenyl;

or a pharmaceutically acceptable salt thereof.

19. The compound according to claim 18, wherein Q is phenyl, which is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, -C_{1-4} alkyl, -C_{1-4} fluoroalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} fluoroalkyl, -CN, -SR^a, -$(CH_2)_{1-2}$-N(R^aR^b), -SO_2R^a, -N(R^a)SO_2R^b, -SO_2N(R^aR^b), -$(CH_2)_{0-2}$-CO_2R^{a*}, -$(CH_2)_{0-2}$-N(R^a)CO_2R^{b*}, -NO_2, or phenyl;

each R^a is independently H, methyl, or ethyl;

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each R^b is independently H, methyl, or ethyl; and

each R^{a*} and R^{b*} is independently H or $-C_{1-4}$ alkyl;

or a pharmaceutically acceptable salt thereof.

20. The compound according to claim 19, wherein R^5 is H and p is zero; or a pharmaceutically acceptable salt thereof.

21. The compound according to claim 20, wherein Q is phenyl which is optionally substituted with from 1 to 3 substituents, each of which is independently -F, -Br, -Cl, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, -CN, $-SR^a$ or $-SO_2R^a$;

or a pharmaceutically acceptable salt thereof.

22. The compound according to claim 21, wherein Q is *p*-fluorophenyl or 2,3-dimethoxyphenyl;

or a pharmaceutically acceptable salt thereof.

23. The compound according to claim 1, wherein

R^1 is $-R^k$;

R^k is a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S;

wherein the heteroaromatic ring is optionally substituted with from 1 to 3 substituents each of which is independently

(1) halogen,

(2) $-C_{1-6}$ alkyl, which is optionally substituted with from 1 to 5 substituents each of which is independently halogen, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$,

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$N(R^a)$-C(=O)-$(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)$-$C(R^b)$=O,

(3) $-NO_2$,

(4) oxo,

(5) $-C(=O)R^a$,

(6) $-CO_2R^a$,

(7) $-C(=O)N(R^aR^b)$,

(8) -C(=O)-C_{1-4} alkyl-$N(R^aR^b)$,

(9) $-R^m$,

(10) -C_{1-6} alkyl-R^m, wherein the alkyl is optionally substituted with from 1 to 5 substituents each of which is independently halogen, -OH, -CN, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)$-$C(R^b)$=O,

(11) -C_{0-4} alkyl-$N(R^a)$-C_{0-4} alkyl-R^m,

(12) -C_{0-4} alkyl-O-C_{0-4} alkyl-R^m,

(13) -C_{0-4} alkyl-S-C_{0-4} alkyl-R^m,

(14) -C_{0-4} alkyl-C(=O)-C_{0-4} alkyl-R^m,

(15) -C(=O)-O-C_{0-4} alkyl-R^m,

(16) -C(=O)$N(R^a)$-C_{0-4} alkyl-R^m,

(17) $-N(R^a)C(=O)$-R^m,

(18) $-N(R^a)C(=O)$-C_{1-6} alkyl-R^m, wherein the alkyl is optionally substituted with from 1 to 5 substituents each of which is independently halogen, -OH, -CN, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)$-$C(R^b)$=O,

(19) $-N(R^a)$-C(=O)-$N(R^b)$-C_{0-4} alkyl-R^m,

(20) $-N(R^a)$-C(=O)-O-C_{0-4} alkyl-R^m, or

(21) $-N(R^a)$-C(=O)-$N(R^b)SO_2$-C_{0-4} alkyl-R^m;

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wherein each R^m is independently aryl selected from phenyl and naphthyl or a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; wherein

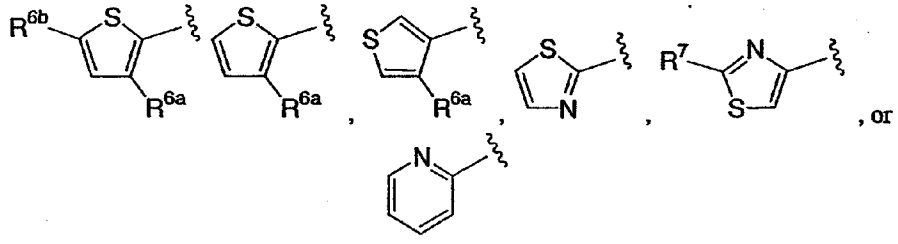
the aryl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, or $-N(R^aR^b)$; and

the heteroaromatic ring is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl or oxo; and

each R^a and R^b is independently -H or $-C_{1-4}$ alkyl;

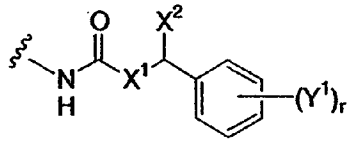
or a pharmaceutically acceptable salt thereof.

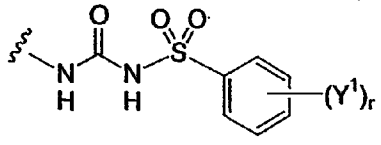
24. The compound according to claim 23, wherein R^1 is:



R^{6a} is:

(1) -H,

(2)  , or

(3)  ;

wherein X^1 is a single bond connecting the carbonyl carbon to the carbon substituted with X^2, -O-, or -NH-;

X^2 is -H, $-NH_2$, or $-N(H)CO_2R^a$;

Y^1 is -H, halo or $-C_{1-4}$ alkyl; and

r is an integer equal to zero, 1 or 2; and

R^{6b} is -H or $-NO_2$; and

R^7 is -H or $-C_{1-4}$ alkyl;

or a pharmaceutically acceptable salt thereof.

25. The compound according to claim 24, wherein

R^{6a} and R^{6b} are both -H; and

R^7 is -H or $-CH_3$;

or a pharmaceutically acceptable salt thereof.

26. The compound according to claim 25, wherein

R^2 is -H or methyl;

R^3 is -H; and

R^4 is $-CH_2$-Q; wherein Q is phenyl optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, -Br, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, or $-SO_2R^a$; and is additionally and optionally mono-substituted with methylenedioxy attached to two adjacent ring carbon atoms, phenyl, or -O-phenyl;

or a pharmaceutically acceptable salt thereof.

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27. The compound according to claim 1, wherein:

R^1 is $-R^k$;

R^k is phenyl which is optionally substituted with from 1 to 3 substituents each of which is independently:

(1) halogen,

(2) $-C_{1-6}$ alkyl, which is optionally substituted with from 1 to 5 substituents each of which is independently halogen, -OH, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(3) $-NO_2$,

(4) $-C(=O)R^a$,

(5) $-CO_2R^a$,

(6) $-C(=O)N(R^aR^b)$,

(7) $-C(=O)-C_{1-4}$ alkyl-$N(R^aR^b)$,

(8) $-R^m$,

(9) $-C_{1-6}$ alkyl-R^m, wherein the alkyl is optionally substituted with from 1 to 5 substituents each of which is independently halogen, -OH, -CN, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(10) $-C_{0-4}$ alkyl-$N(R^a)-C_{0-4}$ alkyl-R^m,

(11) $-C_{0-4}$ alkyl-$O-C_{0-4}$ alkyl-R^m,

(12) $-C_{0-4}$ alkyl-$S-C_{0-4}$ alkyl-R^m,

(13) $-C_{0-4}$ alkyl-$C(=O)-C_{0-4}$ alkyl-R^m,

(14) $-C(=O)-O-C_{0-4}$ alkyl-R^m,

(15) $-C(=O)N(R^a)-C_{0-4}$ alkyl-R^m,

(16) $-N(R^a)C(=O)-R^m$,

(17) $-N(R^a)C(=O)-C_{1-6}$ alkyl-R^m, wherein the alkyl is optionally

substituted with from 1 to 5 substituents each of which is independently halogen, -OH, -CN, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -C(=O)R^a, -CO_2R^a, -SR^a, -S(=O)R^a, -N(R^aR^b), -N(R^a)CO_2R^b, -SO_2R^a, -N(R^a)SO_2R^b, -SO_2N(R^aR^b), or -N(R^a)-C(R^b)=O,

(18) -N(R^a)-C(=O)-N(R^b)-C_{0-4} alkyl-R^m,

(19) -N(R^a)-C(=O)-O-C_{0-4} alkyl-R^m, or

(20) -N(R^a)-C(=O)-N(R^b)SO_2-C_{0-4} alkyl-R^m;

wherein each R^m is independently aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; or a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; wherein

the aryl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, -C_{1-4} alkyl, -CF_3, -O-C_{1-4} alkyl, -OCF_3, or -N(R^aR^b);

the saturated heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently -C_{1-4} alkyl or oxo, and is additionally optionally mono-substituted with phenyl, -$(CH_2)_{1-2}$-phenyl, -C(=O)-phenyl, -CO_2-phenyl, or -CO_2-$(CH_2)_{1-2}$-phenyl; and

the heteroaromatic ring is optionally substituted with 1 or 2 substituents each of which is independently -C_{1-4} alkyl or oxo;

or a pharmaceutically acceptable salt thereof.

28. The compound according to claim 27, wherein R^1 is phenyl which is mono-substituted with one of:

(1) fluoro, chloro, or bromo,

(2) -C_{1-4} alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, -O-C_{1-4} alkyl, -OCF_3, -C(=O)R^a, -CO_2R^a, -SR^a, -N(R^aR^b), or -C(=O)N(R^aR^b),

(3) -NO_2,

(4) -C_{1-4} alkyl-R^m,

(5) -O-$(CH_2)_{1-2}$-R^m,

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(6) $-(CH_2)_{0-2}-S-(CH_2)_{0-2}-R^m$,

(7) $-N(R^a)C(=O)-R^m$,

(8) $-N(R^a)C(=O)-(CH_2)_{1-2}-R^m$, wherein the $(CH_2)_{1-2}$ moiety is optionally mono-substituted with $-N(R^aR^b)$ or $-N(R^a)CO_2R^b$, or

(9) $-N(R^a)-C(=O)-N(R^b)-(CH_2)_{1-2}-R^m$;

wherein R^m is aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing 1 or 2 heteroatoms independently selected from N and O; or a 5- or 6-membered heteroaromatic ring containing from 1 or 2 nitrogens; wherein

the aryl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, or $-N(R^aR^b)$; and

the saturated heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently $-C_{1-4}$ alkyl or oxo; and is additionally and optionally mono-substituted with phenyl, $-(CH_2)_{1-2}$-phenyl, $-C(=O)$-phenyl, $-CO_2$-phenyl, or $-CO_2-(CH_2)_{1-2}$-phenyl; and

the heteroaromatic ring is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl or oxo; and

each R^a and R^b is each independently -H or $-C_{1-4}$ alkyl;

or a pharmaceutically acceptable salt thereof.

29. The compound according to claim 28, wherein

R^2 is -H or methyl;

R^3 is -H; and

R^4 is $-CH_2-Q$; wherein Q is phenyl optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, -Br, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, or $-SO_2R^a$; and is additionally and optionally mono-

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substituted with methylenedioxy attached to two adjacent ring carbon atoms, phenyl, or -O-phenyl;

or a pharmaceutically acceptable salt thereof.

30. The compound according to claim 1, wherein

R^1 is $-R^k$;

R^k is a 5- or 6-membered saturated heterocyclic ring containing from 0 to 1 oxygen atoms and from 1 to 3 nitrogen atoms or a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered saturated heterocyclic ring containing from 0 to 1 oxygen atoms and from 1 to 3 nitrogen atoms;

wherein the saturated heterocyclic ring or bicyclic heterocycle is optionally substituted with from 1 to 3 substituents each of which is independently

(1) halogen,
(2) $-C_{1-6}$ alkyl, which is optionally substituted with from 1 to 5 substituents each of which is independently halogen, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,
(3) $-NO_2$,
(4) oxo,
(5) $-C(=O)R^a$,
(6) $-CO_2R^a$,
(7) $-C(=O)N(R^aR^b)$,
(8) $-C(=O)-C_{1-4}$ alkyl$-N(R^aR^b)$,
(9) $-SR^a$,
(10) $-S(=O)R^a$,
(11) $-SO_2R^a$,
(12) $-N(R^aR^b)$,
(13) $-R^m$,
(14) $-C_{1-6}$ alkyl$-R^m$, wherein the alkyl is optionally substituted with

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from 1 to 5 substituents each of which is independently halogen, -OH, -CN, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -C(=O)R^a, -CO_2R^a, -SR^a, -S(=O)R^a, -N(R^aR^b), -N(R^a)CO_2R^b, -SO_2R^a, -N(R^a)SO_2R^b, -SO_2N(R^aR^b), or -N(R^a)-C(R^b)=O,

(15) -C_{0-4} alkyl-N(R^a)-C_{0-4} alkyl-R^m,

(16) -C_{0-4} alkyl-O-C_{0-4} alkyl-R^m,

(17) -C_{0-4} alkyl-S-C_{0-4} alkyl-R^m,

(18) -C_{0-4} alkyl-C(=O)-C_{0-4} alkyl-R^m,

(19) -C(=O)-O-C_{0-4} alkyl-R^m,

(20) -C(=O)N(R^a)-C_{0-4} alkyl-R^m,

(21) -N(R^a)C(=O)-R^m,

(22) -N(R^a)C(=O)-C_{1-6} alkyl-R^m, wherein the alkyl is optionally substituted with from 1 to 5 substituents each of which is independently halogen, -OH, -CN, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -C(=O)R^a, -CO_2R^a, -SR^a, -S(=O)R^a, -N(R^aR^b), -N(R^a)CO_2R^b, -SO_2R^a, -N(R^a)SO_2R^b, -SO_2N(R^aR^b), or -N(R^a)-C(R^b)=O,

(23) -N(R^a)-C(=O)-N(R^b)-C_{0-4} alkyl-R^m,

(24) -N(R^a)-C(=O)-O-C_{0-4} alkyl-R^m, or

(25) -N(R^a)-C(=O)-N(R^b)SO_2-C_{0-4} alkyl-R^m;

wherein each R^m is independently aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; or a 9- to 10-membered bicyclic heterocycle which is saturated or unsaturated and contains from 1 to 3 heteroatoms independently selected from N, O and S; wherein

the aryl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, -C_{1-4} alkyl, -CF_3, -O-C_{1-4} alkyl, -OCF_3, or -N(R^aR^b);

the saturated heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently -C_{1-4} alkyl or oxo, and is additionally optionally mono-substituted with phenyl, -$(CH_2)_{1-2}$-phenyl, -C(=O)-phenyl, -CO_2-phenyl, or -CO_2-$(CH_2)_{1-2}$-phenyl; and

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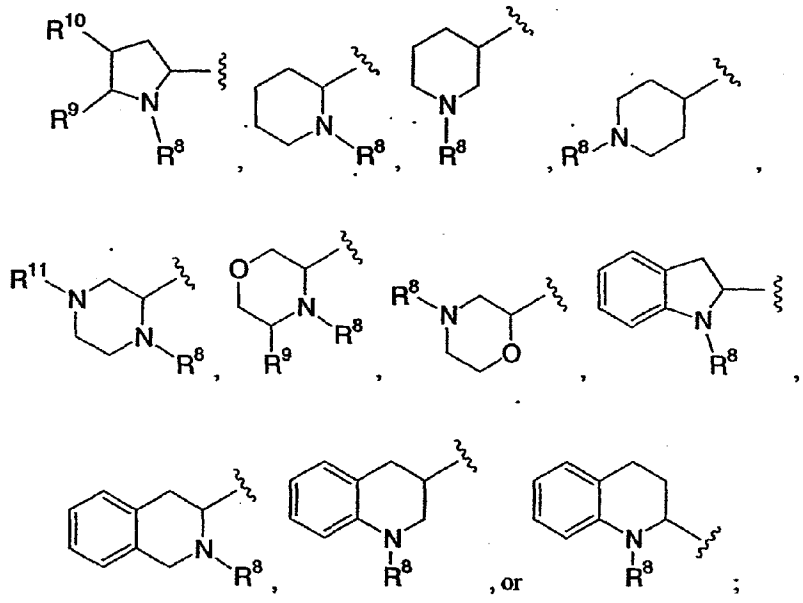
the heteroaromatic ring or the bicyclic heterocycle is optionally substituted with 1 or 2 substituents each of which is independently -C_{1-4} alkyl or oxo;

or a pharmaceutically acceptable salt thereof.

31. The compound according to claim 30, wherein

R^1 is:



R^8 is:

(1) -H,

(2) -C_{1-4} alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, -O-C_{1-4} alkyl, -OCF_3, -C(=O)R^a, -CO_2R^a, -SR^a, -N(R^aR^b), or -C(=O)N(R^aR^b),

(3) -C(=O)R^a,

(4) -CO_2R^a,

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(5) $-C(=O)-(CH_2)_{1-2}-N(R^aR^b)$,
(6) $-SO_2R^a$,
(7) $-(CH_2)_{1-2}-R^m$,
(8) $-(CH_2)_{0-2}-C(=O)-(CH_2)_{0-2}-R^m$,
(9) $-C(=O)-O-(CH_2)_{0-2}-R^m$, or
(10) $-C(=O)N(R^a)-(CH_2)_{0-2}-R^m$;

R^9 is -H, $-C_{1-4}$ alkyl, or oxo;

R^{10} is -H, -OH, $-C_{1-4}$ alkyl, $-O-C_{1-4}$ alkyl, oxo, or $-O-(CH_2)_{1-2}-R^m$;

R^{11} is

(1) -H,
(2) $-C_{1-4}$ alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, $-O-C_{1-4}$ alkyl, $-OCF_3$, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-N(R^aR^b)$, or $-C(=O)N(R^aR^b)$,
(3) $-C(=O)R^a$,
(4) $-CO_2R^a$,
(5) $-C(=O)-(CH_2)_{1-2}-N(R^aR^b)$,
(6) $-SO_2R^a$,
(7) $-(CH_2)_{1-2}-R^m$,
(8) $-(CH_2)_{0-2}-C(=O)-(CH_2)_{0-2}-R^m$,
(9) $-C(=O)-O-(CH_2)_{0-2}-R^m$, or
(10) $-C(=O)N(R^a)-(CH_2)_{0-2}-R^m$;

with the proviso that when one of R^8 and R^{11} is $-(CH_2)_{1-2}-R^m$, $-(CH_2)_{0-2}-C(=O)-(CH_2)_{0-2}-R^m$, $-C(=O)-O-(CH_2)_{0-2}-R^m$, or $-C(=O)N(R^a)-(CH_2)_{0-2}-R^m$, then the other of R^8 and R^{11} is other than $-(CH_2)_{1-2}-R^m$, $-(CH_2)_{0-2}-C(=O)-(CH_2)_{0-2}-R^m$, $-C(=O)-O-(CH_2)_{0-2}-R^m$, or $-C(=O)N(R^a)-(CH_2)_{0-2}-R^m$;

R^m is aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing 1 or 2 heteroatoms independently selected from N and O;

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a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms selected from N, O and S; or a bicyclic heterocycle which is a benzene ring fused to a saturated or unsaturated heterocycle containing from 1 to 3 nitrogen atoms; wherein

the aryl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, or $-N(R^aR^b)$; and

the saturated heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently $-C_{1-4}$ alkyl or oxo; and is additionally and optionally mono-substituted with phenyl, $-(CH_2)_{1-2}$-phenyl, $-C(=O)$-phenyl, $-CO_2$-phenyl, or $-CO_2-(CH_2)_{1-2}$-phenyl; and

the heteroaromatic ring or the bicyclic heterocycle is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl or oxo; and

each R^a and R^b is independently -H or $-C_{1-4}$ alkyl;

or a pharmaceutically acceptable salt thereof.

32. The compound according to claim 31, wherein

R^2 is -H or methyl;

R^3 is -H; and

R^4 is $-CH_2-Q$; wherein Q is phenyl optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, -Br, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, or $-SO_2R^a$; and is additionally and optionally mono-substituted with methylenedioxy attached to two adjacent ring carbon atoms, phenyl, or -O-phenyl;

or a pharmaceutically acceptable salt thereof.

33. The compound according to claim 1, which is a compound of Formula (II):

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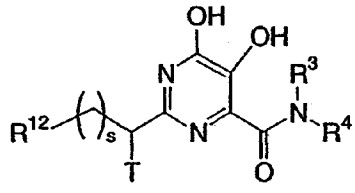

(II);

wherein T is:

(1) -H,
(2) -OH,
(3) -C_{1-4} haloalkyl,
(4) -C_{1-3} alkyl, optionally substituted with -OH or -O-C_{1-4} alkyl,
(5) -O-C_{1-4} haloalkyl,
(6) -O-C_{1-4} alkyl
(7) -N(R^aR^b),
(8) -N(R^a)-$(CH_2)_2$-OH,
(9) -N(R^a)-CO_2R^b,
(10) -N(R^a)-C(=O)-$(CH_2)_{1-2}$-N(R^aR^b),
(11) -R^k,
(12) -$(CH_2)_{1-4}$-R^k,
(13) -$(CH_2)_{0-2}$-O-$(CH_2)_{0-2}$-R^k,
(14) -$(CH_2)_{0-2}$-N(R^a)-$(CH_2)_{0-3}$-R^k, or
(15) -$(CH_2)_{0-2}$-N(R^a)-C(=O)-$(CH_2)_{0-2}$-R^k;

R^k is aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; or a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered saturated or unsaturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; wherein

the aryl is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -C_{1-4} alkyl, -C_{1-4} alkyl-OR^a, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, or -N(R^aR^b); and

the saturated heterocyclic ring is optionally substituted with from 1 to 4 substituents each of which is independently -C_{1-4} alkyl; -C_{1-4} alkyl-OR^a;

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$-C_{1-4}$ haloalkyl; $-O-C_{1-4}$ alkyl; $-O-C_{1-4}$ haloalkyl; $-C(=O)R^a$; oxo; ethylenedioxy spiro substituted on a ring carbon; phenyl; $-CH_2$-phenyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; $-CH_2$-saturated heterocycle which is a a 5- or 6-membered ring containing from 1 to 4 heteroatoms independently selected from N, O and S; or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S;

the heteroaromatic ring is optionally substituted with from 1 to 4 substituents each of which is independently $-C_{1-4}$ alkyl, $-C_{1-4}$ alkyl-OR^a, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, or oxo; and

the bicyclic heterocycle is optionally substituted with from 1 to 4 substituents each of which is independently $-C_{1-4}$ alkyl or oxo;

R^{12} is phenyl which is optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, Br, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, methylenedioxy attached to two adjacent carbon atoms, or phenyl;

each R^a and R^b is independently -H or $-C_{1-4}$ alkyl; and

s is an integer equal to zero, 1, 2, or 3;

or a pharmaceutically acceptable salt thereof.

34. The compound according to claim 33, wherein

R^3 is -H; and

R^4 is $-CH_2-Q$; wherein Q is phenyl optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, -Br, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, $-SR^a$, or $-SO_2R^a$; and is additionally and optionally mono-substituted with methylenedioxy attached to two adjacent ring carbon atoms, phenyl, or -O-phenyl;

or a pharmaceutically acceptable salt thereof.

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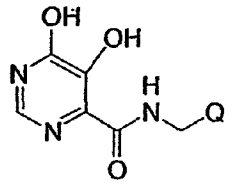
35. The compound according to claim 33, wherein

s is zero, 1 or 2;

and with the proviso that when s is 1 or 2, T is -H;

or a pharmaceutically acceptable salt thereof.

36. The compound according to claim 1, which is a compound of Formula (III):



(III);

wherein Q is phenyl optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, -Br, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, $-SR^a$, or $-SO_2R^a$; and is additionally and optionally mono-substituted with methylenedioxy attached to two adjacent ring carbon atoms, phenyl, or -O-phenyl;

or a pharmaceutically acceptable salt thereof.

37. The compound according to claim 1, wherein

R^1 is

(1) $-C_{1-4}$ alkyl, which is optionally substituted with 1 to 3 substituents each of which is independently fluoro, chloro, -OH, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$,

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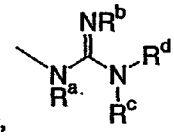
$-N(R^a)-C(=O)-(CH_2)_{1-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$,



$-SO_2N(R^aR^b)$, $-N(R^a)-C(R^b)=O$, ,

$-N(R^a)C(=O)N(R^bR^c)$, $-N(R^a)C(=O)C(=O)N(R^bR^c)$, or

$-N(R^a)C(=O)OR^b$,

(2) $-(CH_2)_{1-3}-R^k$,

(3) $-(CH_2)_{1-3}-O-(CH_2)_{0-2}-R^k$,

(4) $-(CH_2)_{1-3}-N-(CH_2)_{0-2}-R^k$,

(5) $-(CH_2)_{1-3}-N(R^a)C(=O)-(CH_2)_{0-2}-R^k$,

(6) $-(CH_2)_{1-3}-N(R^a)C(=O)-O-(CH_2)_{0-2}-R^k$,

(7) $-(CH_2)_{0-3}-C(=O)N(R^a)-(CH_2)_{0-2}-R^k$, or

(8) $-C(=O)-(CH_2)_{0-2}-R^k$,

(9) $-C(CH_3)_2N(R^a)C(=O)OCH_2R^k$,

(10) $-C(CH_3)_2N(R^a)CH_2R^k$,

(11) $-C(CH_3)_2N(R^a)C(=O)R^k$,

(12) $-C(R^b)(N(R^a)C(=O)R^k)(CH_2OR^c)$, or

(13) $-C(R^b)(N(R^a)(CH_2)-R^k)(CH_2OR^c)$,

R^k is aryl selected from phenyl and naphthyl, with the proviso that when R^1 is $-(CH_2)_{1-3}-R^k$, then R^k is not phenyl; a bicyclic carbocycle selected from indanyl and tetrahydronaphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; or a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered saturated or unsaturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S, with the proviso that the bicyclic heterocycle is not benzo-1,3-dioxolyl ;

wherein the aryl, bicyclic carbocycle, saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle is optionally substituted with from 1 to 3 substituents each of which is independently

(1) fluoro, chloro, or bromo,

(2) -OH,

(3) -CN,

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(4) $-CF_3$,

(4) $-C_{1-4}$ alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, $-O-C_{1-4}$ alkyl, $-OCF_3$, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, or $-N(R^aR^b)$,

(5) $-OCF_3$,

(5) $-O-C_{1-4}$ alkyl,

(8) oxo,

(9) methylenedioxy attached to two adjacent ring carbon atoms,

(10) $-C(=O)R^a$,

(11) $-CO_2R^a$,

(12) $-SR^a$,

(13) $-S(=O)R^a$,

(14) $-N(R^aR^b)$,

(15) $-(CH_2)_{0-2}-C(=O)N(R^aR^b)$,

(16) $-C(=O)-(CH_2)_{1-2}-N(R^aR^b)$, or

(17) $-SO_2R^a$;

or a pharmaceutically acceptable salt thereof.

38. The compound according to claim 37, wherein

R^2 is -H; and

R^4 is $-CH_2-Q$; wherein Q is phenyl optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, -Br, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, or $-SO_2R^a$; and is additionally and optionally mono-substituted with methylenedioxy attached to two adjacent ring carbon atoms, phenyl, or -O-phenyl;

each R^a and R^b is independently -H or $-C_{1-4}$ alkyl;

R^k is aryl selected from phenyl and naphthyl, with the proviso that when R^1 is $-(CH_2)_{1-3}-R^k$, then R^k is not phenyl; a bicyclic carbocycle selected from indanyl and tetrahydronaphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1

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to 4 heteroatoms independently selected from N, O and S; a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; or a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered saturated or unsaturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S, with the proviso that the bicyclic heterocycle is not benzo-1,3-dioxolyl;

wherein the aryl, bicyclic carbocycle, saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle is optionally substituted with from 1 to 3 substituents each of which is independently

(1) fluoro, chloro, or bromo,
(2) -OH,
(3) -CN,
(4) $-CF_3$,
(4) $-C_{1-4}$ alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, $-O-C_{1-4}$ alkyl, $-OCF_3$, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, or $-N(R^aR^b)$,
(5) $-OCF_3$,
(5) $-O-C_{1-4}$ alkyl,
(8) oxo,
(9) methylenedioxy attached to two adjacent ring carbon atoms,
(10) $-C(=O)R^a$,
(11) $-CO_2R^a$,
(12) $-SR^a$,
(13) $-S(=O)R^a$,
(14) $-N(R^aR^b)$,
(15) $-(CH_2)_{0-2}-C(=O)N(R^aR^b)$,
(16) $-C(=O)-(CH_2)_{1-2}-N(R^aR^b)$, or
(17) $-SO_2R^a$;

or a pharmaceutically acceptable salt thereof.

39. The compound according to claim 1, which is a compound of Formula (IV):

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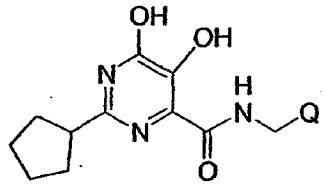
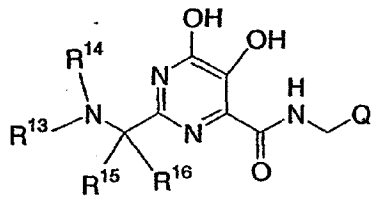


(IV);

wherein Q is phenyl optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, -Br, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, $-SR^a$, or $-SO_2R^a$; and is additionally and optionally mono-substituted with methylenedioxy attached to two adjacent ring carbon atoms, phenyl, or -O-phenyl;

or a pharmaceutically acceptable salt thereof.

40. The compound according to claim 1, which is a compound of Formula (V):



(V);

wherein

R^{13} is -H or $-C_{1-6}$ alkyl;

R^{14} is -H, $-C_{1-6}$ alkyl, $-C(=O)-C_{1-6}$ alkyl, $-C(=O)-(CH_2)_{0-2}-J$, or $-C(=O)-O-(CH_2)_{0-2}-J$; wherein J is aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

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wherein the aryl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, chloro, bromo, $-CF_3$, $-C_{1-4}$ alkyl, $-OCF_3$, or $-O-C_{1-4}$ alkyl; and

wherein the saturated heterocyclic ring or heteroaromatic ring is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, chloro, bromo, $-CF_3$, $-C_{1-4}$ alkyl, $-OCF_3$, $-O-C_{1-4}$ alkyl, or oxo;

R^{15} and R^{16} are each independently $-C_{1-6}$ alkyl; or alternatively R^{15} and R^{16} together with the carbon atom to which they are both attached form C_{3-8} cycloalkyl; and

Q is phenyl optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, -Br, -OH, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, -CN, $-SR^a$, or $-SO_2R^a$; and is additionally and optionally mono-substituted with methylenedioxy attached to two adjacent ring carbon atoms, phenyl, or -O-phenyl;

or a pharmaceutically acceptable salt thereof.

41. The compound according to claim 40, wherein

R^{15} and R^{16} are both methyl; or alternatively R^{15} and R^{16} together with the carbon atom to which they are both attached form cyclohexyl;

or a pharmaceutically acceptable salt thereof.

42. A compound according to claim 1,which is a compound selected from the group consisting of

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-methyl-1-(methylamino)ethyl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylmorpholin-3-yl)pyrimidine-4-carboxamide;

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2-[1-benzoyl-4-(N,N-dimethylglycyl)piperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-benzoyl-4-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methylpiperidin-2-yl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-2-ylcarbonyl)-1,2,3,4-tetrahydroquinolin-2-yl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-methyl-1-(pyridin-2-ylcarbonyl)piperazin-2-yl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-methyl-4-(pyridin-2-ylcarbonyl)piperazin-2-yl]pyrimidine-4-carboxamide;

2-(1-ethylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-isopropyl-1-methylpiperazin-2-yl)pyrimidine-4-carboxamide;

2-[1-(acetylamino)cyclohexyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(morpholin-4-ylacetyl)piperidin-2-yl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(pyrrolidin-1-ylmethyl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methylpyrrolidin-2-yl)pyrimidine-4-carboxamide;

2-[1-(N,N-dimethylglycyl)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-methyl-1-[(pyridin-2-lcarbonyl)amino]ethyl}pyrimidine-4-carboxamide;

2-[1-(dimethylamino)-2-phenylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{1-[(2,4-dimethyl-1,3-thiazol-5-yl)carbonyl]piperidin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(3-chlorobenzoyl)-4-methylpiperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-methyl-4-(methylsulfonyl)piperazin-2-yl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-isopropyl-4-methylpiperazin-2-yl)pyrimidine-4-carboxamide;

N-(3-bromo-4-fluorobenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(dimethylamino)cyclohexyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-[(pyridin-2-ylcarbonyl)amino]cyclohexyl}pyrimidine-4-carboxamide;

2-(4-benzyl-1-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

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N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[4-(1-piperidin-1-ylethyl)phenyl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(2-methyl-1,2,3,4-tetrahydroisoquinolin-3-yl)pyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-2-[1-(N,N-dimethylglycyl)piperidin-2-yl]-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(anilinocarbonyl)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[(2S,4R)-1-benzoyl-4-(benzyloxy)pyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-2-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-(morpholin-4-ylacetyl)-1,2,3,4-tetrahydroisoquinolin-3-yl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-phenyl-1-[(pyridin-2-lcarbonyl)amino]ethyl}pyrimidine-4-carboxamide;

2-(1-benzoylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-benzylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-benzoylpyrrolidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-isonicotinoylpiperidin-2-yl)pyrimidine-4-carboxamide;

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N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-(1-isonicotinoylpiperidin-2-yl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(methylsulfonyl)piperidin-2-yl]pyrimidine-4-carboxamide;

2-(1-benzoyl-1,2,3,4-tetrahydroquinolin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{1-[(N,N-dimethylglycyl)amino]-2-phenylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[4-(piperidin-1-ylmethyl)phenyl]pyrimidine-4-carboxamide;

2-{4-[(diethylamino)methyl]phenyl}-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-4-ylmethyl)piperidin-2-yl]pyrimidine-4-carboxamide;

2-(1-benzoylpyrrolidin-2-yl)-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

tert-butyl 2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)morpholine-4-carboxylate;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-3-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide;

2-[2-(N,N-dimethylglycyl)-1,2,3,4-tetrahydroisoquinolin-3-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

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2-(1-benzoyl-2,3-dihydro-1H-indol-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(2-benzoyl-1,2,3,4-tetrahydroisoquinolin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-amino-2-phenylethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(4-benzylmorpholin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-[(1-methyl-1H-imidazol-2-yl)carbonyl]piperidin-2-yl}pyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-5,6-dihydroxy-2-[4-(morpholin-4-ylmethyl)phenyl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(morpholin-4-ylmethyl)pyrimidine-4-carboxamide;

N-(4-Fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{4-[({[(2-chlorophenyl)sulfonyl]amino}carbonyl)amino]thien-3-yl}-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4 carboxamide;

N^4-(4-fluorobenzyl)-5,6-dihydroxy-N^2-(pyridin-2-ylmethyl)pyrimidine-2,4-dicarboxamide;

2-Benzyl-*N*-(4-fluorobenzyl)-5-hydroxy-6-(2-morpholin-4-ylethoxy)pyrimidine-4-carboxamide;

and pharmaceutically acceptable salts thereof.

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43. A compound according to claim 42, which is a compound selected from the group consisting of

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methylpiperidin-2-yl)pyrimidine-4-carboxamide;

2-[1-(dimethylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylmorpholin-3-yl)pyrimidine-4-carboxamide;

2-[(dimethylamino)(phenyl)methyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{4-[(diethylamino)methyl]phenyl}-N-(2,3-dimethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-benzyl-5,6-dihydroxy-2-(3-phenylpropyl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-(pyridin-2-ylcarbonyl)-1,2,3,4-tetrahydroquinolin-2-yl]pyrimidine-4-carboxamide;

and pharmaceutically acceptable salts thereof.

44. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to claim 1, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

45. A method of inhibiting HIV integrase in a subject in need thereof which comprises administering to the subject a therapeutically effective amount of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

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46. A method for preventing or treating infection by HIV or for preventing, treating or delaying the onset of AIDS in a subject in need thereof which comprises administering to the subject a therapeutically effective amount of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

47. The method according to claim 46, wherein the compound is administered in combination with a therapeutically effective amount of at least one antiviral selected from the group consisting of HIV protease inhibitors, non-nucleoside HIV reverse transcriptase inhibitors and nucleoside HIV reverse transcriptase inhibitors.

48. A pharmaceutical composition which comprises the product prepared by combining an effective amount of a compound according to claim 1, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

49. A combination useful for inhibiting HIV integrase, for treating or preventing infection by HIV, or for preventing, treating or delaying the onset of AIDS, which is a therapeutically effective amount of a compound according to claim 1, or a pharmaceutically acceptable salt thereof, and a therapeutically effective amount of an HIV infection/AIDS antiviral agent selected from the group consisting of HIV protease inhibitors, non-nucleoside HIV reverse transcriptase inhibitors and nucleoside HIV reverse transcriptase inhibitors.

50. A compound according to claim 1, which is a compound selected from the group consisting of

benzyl 1-[4-({[4-fluoro-2-(methylsulfonyl)benzyl]amino}carbonyl)-5,6-dihydroxypyrimidin-2-yl]-1-methylethylcarbamate;

2-(1-amino-1-methylethyl)-N-[4-fluoro-2-(methylsulfonyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(dimethylamino)-1-methylethyl]-N-[4-fluoro-2-(methylsulfonyl)benzyl]-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-aminocyclopropyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(dimethylamino)cyclopropyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-[(pyrazin-2-ylcarbonyl)amino]cyclopropyl}pyrimidine-4-carboxamide;

benzyl 1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)cyclopentylcarbamate;

2-(1-aminocyclopentyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(dimethylamino)cyclopentyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-{[(ethylamino)carbonyl]amino}-1-methylethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(benzylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(benzoylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{1-[benzyl(methyl)amino]-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(dimethylamino)-1-methylethyl]-N-(2-ethoxybenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(2-chlorobenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide;

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N-(2-chlorobenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide;

N-(5-chloro-2-methylbenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-methyl-1-[(pyrazin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide;

2-[1-(diethylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-morpholin-4-ylethyl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-piperidin-1-ylethyl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-pyrrolidin-1-ylethyl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-methyl-1-[methyl(pyridin-4-ylmethyl)amino]ethyl}pyrimidine-4-carboxamide;

2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxy-N-[2-(methylthio)benzyl]pyrimidine-4-carboxamide;

N^1,N^1-diethyl-N~2~-[1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-1-methylethyl]ethanediamide;

2-[1-(1,4-dioxa-8-azaspiro[4.5]dec-8-yl)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1-methyl-1-{[(1-methyl-1H-imidazol-2-yl)carbonyl]amino}ethyl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[1-methyl-1-(4-oxopiperidin-1-yl)ethyl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{1-methyl-1-[methyl(pyridin-2-ylmethyl)amino]ethyl}pyrimidine-4-carboxamide;

N-[1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-1-methylethyl]-4-methylmorpholine-2-carboxamide;

2-{1-[acetyl(methyl)amino]-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(acetylamino)-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{1-[4-(dimethylamino)piperidin-1-yl]-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-2-[1-(dimethylamino)-1-methylethyl]-5,6-dihydroxypyrimidine-4-carboxamide;

2-[4-(dimethylamino)tetrahydro-2H-pyran-4-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(7-methyl-7-azabicyclo[2.2.1]hept-1-yl)pyrimidine-4-carboxamide;

2-(7-acetyl-7-azabicyclo[2.2.1]hept-1-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(2-acetyl-2-azabicyclo[2.1.1]hex-1-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

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N-(4-fluorobenzyl)-5,6-dihydroxy-2-(2-methyl-2-azabicyclo[2.1.1]hex-1-yl)pyrimidine-4-carboxamide;

tert-butyl (2S,4R)-4-(benzyloxy)-2-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)piperidine-1-carboxylate;

2-[(2S,4R)-4-(benzyloxy)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[(2S,4R)-4-(benzyloxy)-1-methylpiperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(2S,4R)-4-hydroxy-1-methylpiperidin-2-yl]pyrimidine-4-carboxamide;

2-[1-acetyl-4-(benzyloxy)piperidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-ethyl-4-methylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-methyl-1-(pyrazin-2-ylcarbonyl)piperazin-2-yl]pyrimidine-4-carboxamide;

tert-butyl 3-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)thiomorpholine-4-carboxylate;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-thiomorpholin-3-ylpyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(4-methylthiomorpholin-3-yl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[4-(pyridin-2-ylcarbonyl)thiomorpholin-3-yl]pyrimidine-4-carboxamide;

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2-(4-acetylthiomorpholin-3-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

tert-butyl 1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-2-methoxyethylcarbamate;

2-[1-(dimethylamino)-2-methoxyethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(acetylamino)-2-methoxyethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-amino-2-methoxyethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-methoxy-1-[(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-2-[1-(formylamino)-2-methoxyethyl]-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-methoxy-1-(methylamino)ethyl]pyrimidine-4-carboxamide;

2-{1-[acetyl(methyl)amino]-2-methoxyethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-methoxy-1-[methyl(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(4R)-3-(pyridin-2-ylcarbonyl)-1,3-thiazolidin-4-yl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(4R)-1,3-thiazolidin-4-yl]pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[(4R)-3-methyl-1,3-thiazolidin-4-yl]pyrimidine-4-carboxamide;

2-(3-acetyl-1,3-thiazolidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(3-methyl-1,3-thiazolidin-2-yl)pyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-(1,2,4-trimethylpiperazin-2-yl)pyrimidine-4-carboxamide;

2-[2,4-dimethyl-1-(pyrazin-2-ylcarbonyl)piperazin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-acetyl-2,4-dimethylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

tert-butyl 1-(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyrimidin-2-yl)-2-methoxy-1-methylethylcarbamate;

2-(1-amino-2-methoxy-1-methylethyl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(acetylamino)-2-methoxy-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[1-(dimethylamino)-2-methoxy-1-methylethyl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-methoxy-1-methyl-1-(methylamino)ethyl]pyrimidine-4-carboxamide;

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N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-methoxy-1-methyl-1-[(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide;

2-(1,2-dimethylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{1-[acetyl(methyl)amino]-2-methoxy-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-{2-methoxy-1-methyl-1-[methyl(pyridin-2-ylcarbonyl)amino]ethyl}pyrimidine-4-carboxamide;

2-{1-[(cyclohexylmethyl)(methyl)amino]-2-methoxy-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{1-[(cyclohexylmethyl)amino]-2-methoxy-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-{1-[(cyclohexylmethyl)amino]-2-methoxy-1-methylethyl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(4-acetyl-1,2-dimethylpiperazin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-(1-acetyl-2-methylpiperidin-2-yl)-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-methyl-1-(pyrazin-2-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-2-(1,2-dimethylpiperidin-2-yl)-5,6-dihydroxypyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5,6-dihydroxy-2-[2-methyl-1-(pyridin-2-ylcarbonyl)piperidin-2-yl]pyrimidine-4-carboxamide;

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2-{1-[(2,4-dimethyl-1,3-thiazol-5-yl)carbonyl]-2-methylpiperidin-2-yl}-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

2-[(2S)-1-acetyl-2-methylpyrrolidin-2-yl]-N-(4-fluorobenzyl)-5,6-dihydroxypyrimidine-4-carboxamide;

and pharmaceutically acceptable salts thereof.

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INTERNATIONAL SEARCH REPORT

Interna Application No
PCT/GB 02/04742

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/513 A61K31/5377 A61K31/541 C07D239/52 C07D239/557
C07D401/04 C07D401/06 C07D401/12 C07D401/14 C07D403/04
C07D403/12 C07D403/14 C07D405/04 C07D413/04 C07D409/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

CHEM ABS Data, WPI Data, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01 00578 A.(EGBERTSON MELISSA S ;FISHER THORSTEN E (US); MELAMED JEFFREY Y (US) 4 January 2001 (2001-01-04) * the entire document * ---	1-50
A	WO.99 62520 A (EGBERTSON MELISSA ;FISHER THORSTEN E (US); CLARK DAVID L (US); EMB) 9 December 1999 (1999-12-09) cited in the application * the entire document * ---	1-50
A	US 6 306 891 B1 (EGBERTSON MELISSA ET AL) 23 October 2001 (2001-10-23) * the entire document * ---	1-50

-/--

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 January 2003	28/01/2003

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016	Nemes, C

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Inte onal application No.
PCT/GB 02/04742

INTERNATIONAL SEARCH REPORT

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 45-47 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

2. [ ] Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

Interna Application No
PCT/GB 02/04742

Patent document cited in search report		Publication date	Patent family member(s)			Publication date
WO 0100578	A	04-01-2001	AU	5880600	A	31-01-2001
			EP	1196384	A1	17-04-2002
			WO	0100578	A1	04-01-2001
WO 9962520	A	09-12-1999	AU	4225499	A	20-12-1999
			CA	2333707	A1	09-12-1999
			EP	1082121	A1	14-03-2001
			WO	9962520	A1	09-12-1999
			JP	2002516863	T	11-06-2002
			US	6380249	B1	30-04-2002
US 6306891	B1	23-10-2001	AU	4225699	A	20-12-1999
			CA	2329134	A1	09-12-1999
			EP	1083897	A1	21-03-2001
			JP	2002516858	T	11-06-2002
			WO	9962513	A1	09-12-1999
WO 9962897	A	09-12-1999	AU	4225599	A	20-12-1999
			CA	2333771	A1	09-12-1999
			EP	1086091	A1	28-03-2001
			JP	2002517390	T	18-06-2002
			WO	9962897	A1	09-12-1999
			US	6262055	B1	17-07-2001

Annexure-D

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(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 May 2003 (01.05.2003)

PCT

(10) International Publication Number
WO 03/035077 A1

(51) International Patent Classification[7]: A61K 31/515, C07D 239/54, 401/12, 401/14, 403/10, 401/06, 403/04, 401/04, 403/12, 417/04, 513/04, 413/12, 403/14, 413/04, 413/14

(21) International Application Number: PCT/GB02/04753

(22) International Filing Date: 21 October 2002 (21.10.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/339,568	26 October 2001 (26.10.2001)	US
60/362,191	6 March 2002 (06.03.2002)	US

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(74) Agent: **THOMPSON, John**; Merck & Co., Inc., European Patent Department, Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB).

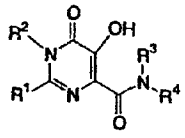
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: N-SUBSTITUTED HYDROXYPYRIMIDINONE CARBOXAMIDE INHIBITORS OF HIV INTEGRASE



(I)

(57) Abstract: N-substituted 5-hydroxypyrimidin-6-one-4-carboxamides of formula (I): are described as inhibitors of HIV integrase and inhibitors of HIV replication, wherein R^1, R^2, R^3 and R^4 are defined herein. These compounds are useful in the prevention and treatment of infection by HIV and in the prevention, delay in the onset, and treatment of AIDS. The compounds are employed against HIV infection and AIDS as compounds per se or in the form of pharmaceutically acceptable salts. The compounds and their salts can be employed as ingredients in pharmaceutical compositions, optionally in combination with other antivirals, immunomodulators, antibiotics or vaccines. Methods of preventing, treating or delaying the onset of AIDS and methods of preventing or treating infection by HIV are also described.

WO 03/035077 A1

BEFORE THE CONTROLLER OF PATENTS, THE PATENT OFFICE, KOLKATA

IN THE MATTER OF THE PATENTS ACT, 1970 and THE PATENTS RULES 2003.

IN THE MATTER OF a pre-grant opposition under Section 25(1)

AND

IN THE MATTER OF:

Indian Patent Application **3865/KOLNP/2007** filed on 20/07/2009 claiming priority of Japanese Patent Application No.2005-131161 dated 28 April, 2005 and Japanese Patent Application No. 2005-312076 dated 27th October 2005 by Shionogi and Company Ltd. National Phase of PCT Application No.PCT/US0616604 (Published as WO2006116764).

AND

IN THE MATTER OF:

Delhi Network of Positive People (DNP+)

...PETITIONER/OPPONENT

VS.

SMITHKLINE BEECHAM CORPORATION

AND

SHIONOGI & CO. LTD.,

...RESPONDENTS/APPLICANTS

Volume-IV of V
(Page Nos. 742 to 958)

INDEX

Sl. No.	PARTICULARS	Page Nos.
1.	**Annexure-D:** Printout of WO 03/035077.	**742-958**

Dated this 21st day of February, 2012.

[Rajeshwari H.]
AGENT FOR THE PETITIONER/OPPONENT

The Controller of Patents
The Patent Office, Kolkata.

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TITLE OF THE INVENTION

N-SUBSTITUTED HYDROXYPYRIMIDINONE CARBOXAMIDE INHIBITORS OF HIV INTEGRASE

FIELD OF THE INVENTION

The present invention is directed to N-substituted 5-hydroxy-6-oxo-1,6-dihydropyrimidine-4-carboxamides and pharmaceutically acceptable salts thereof, their synthesis, and their use as inhibitors of the HIV integrase enzyme. The compounds and pharmaceutically acceptable salts thereof of the present invention are useful for preventing or treating infection by HIV and for treating or delaying the onset of AIDS.

BACKGROUND OF THE INVENTION

A retrovirus designated human immunodeficiency virus (HIV) is the etiological agent of the complex disease that includes progressive destruction of the immune system (acquired immune deficiency syndrome; AIDS) and degeneration of the central and peripheral nervous system. This virus was previously known as LAV, HTLV-III, or ARV. A common feature of retrovirus replication is the insertion by virally-encoded integrase of proviral DNA into the host cell genome, a required step in HIV replication in human T-lymphoid and monocytoid cells. Integration is believed to be mediated by integrase in three steps: assembly of a stable nucleoprotein complex with viral DNA sequences; cleavage of two nucleotides from the 3' termini of the linear proviral DNA; covalent joining of the recessed 3'OH termini of the proviral DNA at a staggered cut made at the host target site. The fourth step in the process, repair synthesis of the resultant gap, may be accomplished by cellular enzymes.

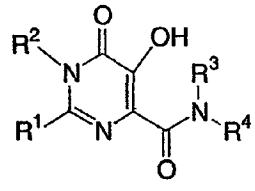
Nucleotide sequencing of HIV shows the presence of a pol gene in one open reading frame [Ratner, L. et al., Nature, 313, 277(1985)]. Amino acid sequence homology provides evidence that the pol sequence encodes reverse transcriptase, integrase and an HIV protease [Toh, H. et al., EMBO J. 4, 1267 (1985); Power, M.D. et al., Science, 231, 1567 (1986); Pearl, L.H. et al., Nature, 329, 351 (1987)]. All three enzymes have been shown to be essential for the replication of HIV.

It is known that some antiviral compounds which act as inhibitors of HIV replication are effective agents in the treatment of AIDS and similar

diseases, including reverse transcriptase inhibitors such as azidothymidine (AZT) and efavirenz and protease inhbitors such as indinavir and nelfinavir. The compounds of this invention are inhibitors of HIV integrase and inhibitors of HIV replication. The inhibition of integrase in vitro and HIV replication in cells is a direct result of inhibiting the strand transfer reaction catalyzed by the recombinant integrase in vitro in HIV infected cells. The particular advantage of the present invention is highly specific inhibition of HIV integrase and HIV replication.

SUMMARY OF THE INVENTION

The present invention is directed to novel hydroxypyrimidinone carboxamides. These compounds are useful in the inhibition of HIV integrase, the prevention of infection by HIV, the treatment of infection by HIV and in the prevention, treatment, and delay in the onset of AIDS and/or ARC, either as compounds or their pharmaceutically acceptable salts or hydrates (when appropriate), or as pharmaceutical composition ingredients, whether or not in combination with other HIV/AIDS antivirals, anti-infectives, immunomodulators, antibiotics or vaccines. More particularly, the present invention includes a compound of Formula (I):



(I);

wherein

R^1 is

(1) -H,

(2) $-C_{1-6}$ alkyl, which is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-C_{0-6}$ alkyl-$N(R^aR^b)$, $N(R^a)-C(=O)-C_{0-6}$ alkyl-$N(R^bR^c)$,

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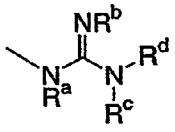
$-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, $-N(R^a)-C(=O)R^b$,



, or $-N(R^2)C(=O)C(=O)N(R^aR^b)$,

(3) $-R^k$,

(4) $-C_{1-6}$ alkyl-R^k, wherein:

(i) the alkyl is optionally substituted with one or more substituents(e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -OH, -CN, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-N(R^a)C(=O)-C_{0-6}$ alkyl-$N(R^bR^c)$, or $-N(R^a)-C_{2-6}$ alkyl-OH with the proviso that the -OH is not attached to the carbon alpha to $N(R^a)$; and

(ii) the alkyl is optionally mono-substituted with $-R^s$, $-C_{1-6}$ alkyl-R^s, $-N(R^a)-C(=O)-C_{0-6}$ alkyl-R^s, $-N(R^a)-C_{0-6}$ alkyl-R^s, -O-C_{0-6} alkyl-R^s, or $-N(R^a)-C(=O)-C_{0-6}$ alkyl-R^s; wherein R^s is

(a) aryl which is optionally substituted with one or more substituents (e.g., optionally from 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -OH, -C_{1-6} alkyl, -C_{1-6} alkyl-OR^a, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, methylenedioxy attached to two adjacent carbon atoms, or aryl;

(b) a 4- to 8- membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the saturated heterocyclic ring is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -C_{1-6} alkyl, -C_{1-6} alkyl-OR^a, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-C(=O)-C_{0-6}$ alkyl-$N(R^aR^b)$, $-SO_2R^a$, oxo, aryl, or -C_{1-6} alkyl-aryl; or

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wherein

each aryl in (3)(ii) or the aryl (4), (5) or (6) or each fused carbocycle in (3)(iii) or the fused carbocycle in (7) is optionally substituted with one or more substituents (e.g., optionally from 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -OH, -C_{1-6} alkyl, -C_{1-6} alkyl-OR^a, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, -CN, -NO_2, -$N(R^aR^b)$, -C_{1-6} alkyl-$N(R^aR^b)$, -C(=O)$N(R^aR^b)$, -C(=O)R^a, -CO_2R^a, -C_{1-6} alkyl-CO_2R^a, -OCO_2R^a, -SR^a, -S(=O)R^a, -SO_2R^a, -$N(R^a)SO_2R^b$, -$SO_2N(R^aR^b)$, -$N(R^a)C(=O)R^b$, -$N(R^a)CO_2R^b$, -C_{1-6} alkyl-$N(R^a)CO_2R^b$, aryl, -C_{1-6} alkyl-aryl, -O-aryl, or -C_{0-6} alkyl-het wherein het is a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, and het is optionally fused with a benzene ring, and is optionally substituted with one or more substituents (e.g., optionally from 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently -C_{1-6} alkyl, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, oxo, or -CO_2R^a;

each saturated heterocyclic ring in (3)(iv) or the saturated heterocyclic ring in (8) is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -C_{1-6} alkyl, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, oxo, aryl, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

each heteroaromatic ring in (3)(v) or the heteroaromatic ring in (9) or each fused bicyclic heterocycle in (3)(vi) or the fused bicyclic heterocycle in (10) is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -C_{1-6} alkyl, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, oxo, aryl, or -C_{1-6} alkyl-aryl;

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or alternatively R^3 and R^4 together with the N to which both are attached form a C_{3-7} azacycloalkyl which is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently $-C_{1-6}$ alkyl or oxo;

each R^a, R^b, R^c, and R^d is independently -H or $-C_{1-6}$ alkyl;

R^k is carbocycle or heterocycle, wherein the carbocycle or heterocycle is optionally substituted with one or more substituents (e.g., optionally from 1 to 7, or 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently

(1) halogen,
(2) -OH,
(3) -CN,
(4) $-C_{1-6}$ alkyl, which is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,
(5) $-O-C_{1-6}$ alkyl, which is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,
(6) $-NO_2$,
(7) oxo,
(8) $-C(=O)R^a$,
(9) $-CO_2R^a$,

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(10) $-SR^a$,

(11) $-S(=O)R^a$,

(12) $-N(R^aR^b)$,

(13) $-C(=O)N(R^aR^b)$,

(14) $-C(=O)-C_{1-6}$ alkyl-$N(R^aR^b)$,

(15) $-N(R^a)C(=O)R^b$,

(16) $-SO_2R^a$,

(17) $-SO_2N(R^aR^b)$,

(18) $-N(R^a)SO_2R^b$,

(19) $-R^m$,

(20) $-C_{1-6}$ alkyl-R^m, wherein the alkyl is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -OH, -CN, $-C_{1-6}$ haloalkyl, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(21) $-C_{0-6}$ alkyl-$N(R^a)-C_{0-6}$ alkyl-R^m,

(22) $-C_{0-6}$ alkyl-$O-C_{0-6}$ alkyl-R^m,

(23) $-C_{0-6}$ alkyl-$S-C_{0-6}$ alkyl-R^m,

(24) $-C_{0-6}$ alkyl-$C(=O)-C_{0-6}$ alkyl-R^m,

(25) $-C(=O)-O-C_{0-6}$ alkyl-R^m,

(26) $-C(=O)N(R^a)-C_{0-6}$ alkyl-R^m,

(27) $-N(R^a)C(=O)-R^m$,

(28) $-N(R^a)C(=O)-C_{1-6}$ alkyl-R^m, wherein the alkyl is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, -OH, -CN, $-C_{1-6}$ haloalkyl, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(29) $-N(R^a)-C(=O)-N(R^b)-C_{0-6}$ alkyl-R^m,

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(30) $-N(R^a)-C(=O)-O-C_{0-6}$ alkyl-R^m,
(31) $-N(R^a)-C(=O)-N(R^b)-SO_2-C_{0-6}$ alkyl-R^m,
(32) $-C(=O)-C(=O)-N(R^aR^b)$,
(33) $-C(=O)-C_{1-6}$ alkyl-SO_2R^a, or
(34) $-C(=O)-C(=O)R^m$;

carbocycle in R^k is (i) a C_3 to C_8 monocyclic, saturated or unsaturated ring, (ii) a C_7 to C_{12} bicyclic ring system, or (iii) a C_{11} to C_{16} tricyclic ring system, wherein each ring in (ii) or (iii) is independent of or fused to the other ring or rings and each ring is saturated or unsaturated;

heterocycle in R^k is (i) a 4- to 8-membered, saturated or unsaturated monocyclic ring, (ii) a 7- to 12-membered bicyclic ring system, or (iii) an 11 to 16-membered tricyclic ring system; wherein each ring in (ii) or (iii) is independent of or fused to the other ring or rings and each ring is saturated or unsaturated; the monocyclic ring, bicyclic ring system, or tricyclic ring system contains from 1 to 6 heteroatoms selected from N, O and S and a balance of carbon atoms; and wherein any one or more of the nitrogen and sulfur heteroatoms is optionally be oxidized, and any one or more of the nitrogen heteroatoms is optionally quaternized;

each R^m is independently C_{3-8} cycloalkyl; aryl; a 5- to 8-membered monocyclic heterocycle which is saturated or unsaturated and contains from 1 to 4 heteroatoms independently selected from N, O and S; or a 9- to 10-membered bicyclic heterocycle which is saturated or unsaturated and contains from 1 to 4 heteroatoms independently selected from N, O and S; wherein any one or more of the nitrogen and sulfur heteroatoms in the heterocycle or bicyclic heterocycle is optionally oxidized and any one or more of the nitrogen heteroatoms is optionally quaternized; and wherein

the cycloalkyl or the aryl defined in R^m is optionally substituted with one or more substituents (e.g., optionally from 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, $-C_{1-6}$ alkyl optionally substituted with $-O-C_{1-4}$ alkyl, $-C_{1-6}$ haloalkyl, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-N(R^aR^b)$, aryl, or $-C_{1-6}$ alkyl-aryl; and

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the monocyclic or bicyclic heterocycle defined in R^m is optionally substituted with one or more substituents (e.g., optionally from 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 or 2 substituents; or is optionally mono-substituted) each of which is independently halogen, $-C_{1-6}$ alkyl, $-C_{1-6}$ haloalkyl, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, oxo, aryl, $-C_{1-6}$ alkyl-aryl, -C(=O)-aryl, $-CO_2$-aryl, $-CO_2-C_{1-6}$ alkyl-aryl, a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

each n is independently an integer equal to zero, 1 or 2;

or a pharmaceutically acceptable salt thereof.

The present invention also includes pharmaceutical compositions containing a compound of the present invention and methods of preparing such pharmaceutical compositions. The present invention further includes methods of treating AIDS, methods of delaying the onset of AIDS, methods of preventing AIDS, methods of preventing infection by HIV, and methods of treating infection by HIV.

Other embodiments, aspects and features of the present invention are either further described in or will be apparent from the ensuing description, examples and appended claims.

DETAILED DESCRIPTION OF THE INVENTION

The present invention includes the N-substituted hydroxypyrimidinone carboxamides of Formula (I) above. These compounds and pharmaceutically acceptable salts thereof are HIV integrase inhibitors.

An embodiment of the present invention is a compound of Formula (I) exactly as defined above, except that in the definition of R^k, R^k is optionally substituted with one or more substituents each of which is independently one of the substituents (1) to (18), and is optionally mono-substituted with one of the substituents (19) to (34).

Another embodiment of the present invention is a compound of Formula (I) as originally defined above, except that the definition of R^2 includes a

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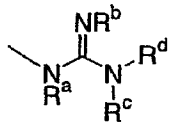
proviso that none of the following optional substituents is attached to the carbon atom in the $-C_{1-6}$ alkyl group that is attached to the ring nitrogen: halogen, -OH, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-SR^a$, $-S(=O)R^a$, or $-N(R^a)-C(R^b)=O$. Stated another way, none of these substituents is attached to the carbon atom alpha to the ring nitrogen.

Another embodiment of the present invention is a compound of Formula (I) as originally defined above except that in the definition of R^1, R^1 is one of substitutents (1) to (16) and in the definition of R^k, R^k is optionally substituted with one or more substituents (e.g., optionally from 1 to 7, or 1 to 6, or 1 to 5, or 1 to 4, or 1 to 3, or 1 to 2 substituents, or is optionally monosubstituted) each of which is independently one of substitutents (1) to (31).

Another embodiment of the present invention is a compound of Formula (I), wherein R^1 is:

(1) -H,

(2) $-C_{1-6}$ alkyl, which is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-3}-N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-3}-N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, $-N(R^a)-C(=O)R^b$,  , or $-N(R^2)C(=O)C(=O)N(R^aR^b)$,

(3) $-R^k$,

(4) $-(CH_2)_{1-3}-R^k$, wherein:

(i) the $-(CH_2)_{1-3}-$ moiety is optionally substituted with one or more substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-N(R^a)C(=O)-(CH_2)_{0-3}-N(R^bR^c)$, or $-N(R^a)-(CH_2)_{2-3}-OH$ with the proviso that the -OH is not attached to the carbon alpha to $N(R^a)$; and

(ii) the $-(CH_2)_{1-3}-$ moiety is optionally mono-substituted with $-R^s$, $-C_{1-6}$ alkyl-R^s, $-N(R^a)-C(=O)-(CH_2)_{0-3}-R^s$, $-N(R^a)-(CH_2)_{0-3}-R^s$, $-O-(CH_2)_{0-3}-R^s$, or $-N(R^a)-C(=O)-(CH_2)_{0-3}-R^s$; wherein R^s is

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(a) aryl which is optionally substituted with one or more substituents each of which is independently halogen, -OH, -C_{1-6} alkyl, -C_{1-6} alkyl-OR^a, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, methylenedioxy attached to two adjacent carbon atoms, or aryl;

(b) a 4- to 8- membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the saturated heterocyclic ring is optionally substituted with one or more substituents each of which is independently halogen, -C_{1-6} alkyl, -C_{1-6} alkyl-OR^a, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, -C(=O)R^a, -CO_2R^a, -C(=O)-$(CH_2)_{0-3}$-N(R^aR^b), -SO_2R^a, oxo, aryl, or -$(CH_2)_{1-3}$-aryl; or

(c) a 5- to 7-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the heteroaromatic ring is optionally substituted with one or more substituents each of which is independently halogen, -C_{1-6} alkyl, -C_{1-6} alkyl-OR^a, -C_{1-6} haloalkyl, -O-C_{1-6} alkyl, -O-C_{1-6} haloalkyl, oxo, or aryl;

(5) -$(CH_2)_{0-3}$-O-$(CH_2)_{0-3}$-R^k,
(6) -$(CH_2)_{0-3}$-$S(O)_n$-$(CH_2)_{0-3}$-R^k,
(7) -$(CH_2)_{1-3}$-OR^k,
(8) -$(CH_2)_{1-3}$-O-$(CH_2)_{1-3}$-R^k,
(9) -O-$(CH_2)_{1-3}$-$S(O)_nR^k$,
(10) -$(CH_2)_{0-3}$-N(R^a)-R^k,
(11) -$(CH_2)_{0-3}$-N(R^a)-$(CH_2)_{1-3}$-R^k,
(12) -$(CH_2)_{0-3}$-N(R^a)-$(CH_2)_{1-3}$-OR^k,
(13) -$(CH_2)_{0-3}$-C(=O)-R^k,
(14) -$(CH_2)_{0-3}$-C(=O)N(R^a)-$(CH_2)_{0-3}$-R^k,
(15) -$(CH_2)_{0-3}$-N(R^a)C(=O)-$(CH_2)_{0-3}$-R^k,
(16) -$(CH_2)_{0-3}$-N(R^a)C(=O)-O-$(CH_2)_{0-3}$-R^k,
(17) -$C(CH_3)_2$N(R^a)C(=O)R^b,
(18) -$C(CH_3)_2$N(R^a)C(=O)R^k, or
(19) -$C(CH_3)_2$N(R^a)C(=O)C(=O)N(R^bR^c);

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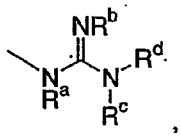
and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

In an aspect of this embodiment, R^1 is one of groups (1) to (16).

Another embodiment of the present invention is a compound of Formula (I), wherein R^1 is:

(1) -H,

(2) $-C_{1-4}$ alkyl, which is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-C_{0-4}$ alkyl-$N(R^aR^b)$, $N(R^a)-C(=O)-C_{0-4}$ alkyl-$N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, $-N(R^a)-C(=O)R^b$,  , or $-N(R^2)C(=O)C(=O)N(R^aR^b)$,

(3) $-R^k$,

(4) $-C_{1-4}$ alkyl-R^k, wherein:

(i) the alkyl is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -CN, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-N(R^a)C(=O)-C_{0-4}$ alkyl-$N(R^bR^c)$, or $-N(R^a)-(CH_2)_{2-4}-OH$; and

(ii) the alkyl is optionally mono-substituted with $-R^s$, $-N(R^a)-C(=O)-C_{0-4}$ alkyl-R^s, $-N(R^a)-C_{0-4}$ alkyl-R^s, $-O-C_{0-4}$ alkyl-R^s, or $-N(R^a)-C(=O)-C_{0-4}$ alkyl-R^s; wherein R^s is

(a) aryl which is optionally substituted with from 1 to 3 substituents each of which is independently halogen, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ alkyl-OR^a, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, methylenedioxy attached to two adjacent carbon atoms, or phenyl;

(b) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the heteroaromatic ring is optionally

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substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ alkyl-OR^a, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, oxo, or phenyl; or

(c) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the saturated heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ alkyl-OR^a, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-C(=O)-C_{0-4}$ alkyl-$N(R^aR^b)$, $-SO_2R^a$, oxo, or phenyl,

(5) $-(CH_2)_{0-3}-C(=O)N(R^a)-(CH_2)_{0-3}-R^k$,

(6) $-C(C_{1-4}\text{ alkyl})_2N(R^a)C(=O)R^b$,

(7) $-C(C_{1-4}\text{ alkyl})_2N(R^a)C(=O)R^k$, or

(8) $-C(C_{1-4}\text{ alkyl})_2N(R^a)C(=O)C(=O)N(R^bR^c)$;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

In an aspect of this embodiment, R^1 is one of groups (1) to (5).

Another embodiment of the present invention is a compound of Formula (I), wherein R^1 is:

(1) -H,

(2) $-C_{1-4}$ alkyl, which is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-N(R^aR^b)$, or $-C(=O)-(CH_2)_{0-2}-N(R^aR^b)$,

(3) $-R^k$,

(4) $-(CH_2)_{1-4}-R^k$, wherein:

(i) the $-(CH_2)_{1-4}-$ moiety is optionally substituted with 1 or 2 substituents each of which is independently halogen, -OH, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, or $-N(R^aR^b)$; and

(ii) the $-(CH_2)_{1-4}-$ moiety is optionally mono-substituted with $-R^s$ or $-N(R^a)-(CH_2)_{1-2}-R^s$; wherein R^s is

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(a) phenyl which is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ alkyl-OR^a, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, or $-O-C_{1-4}$ haloalkyl; or

(b) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the heteroaromatic ring is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ alkyl-OR^a, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, or $-O-C_{1-4}$ haloalkyl; or

(c) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the saturated heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ alkyl-OR^a, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, or $-CO_2R^a$,

(5) $-C(=O)N(R^a)-(CH_2)_{0-3}-R^k$,

(6) $-C(CH_3)_2N(R^a)C(=O)R^b$,

(7) $-C(CH_3)_2N(R^a)C(=O)R^k$,

(8) $-C(CH_3)_2N(R^a)C(=O)C(=O)N(R^bR^c)$;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

In an aspect of this embodiment, R^1 is one of groups (1) to (5).

Another embodiment of the present invention is a compound of Formula (I), wherein

R^k is C_{3-8} cycloalkyl; aryl selected from phenyl and naphthyl; a bicyclic carbocycle selected from indanyl and tetrahydronaphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; or a bicyclic heterocycle which is a benzene

ring fused to a 5- or 6-membered saturated or unsaturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S;

wherein the cycloalkyl, aryl, bicyclic carbocycle, saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle is optionally substituted with from 1 to 4 substituents each of which is independently

(1) halogen,

(2) -OH,

(3) -CN,

(4) $-C_{1-4}$ haloalkyl,

(5) $-C_{1-4}$ alkyl, which is optionally substituted with from 1 to 3 substituents each of which is independently -OH, -CN, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(6) $-O-C_{1-4}$ haloalkyl

(7) $-O-C_{1-4}$ alkyl, which is optionally substituted with from 1 to 3 substituents each of which is independently -OH, -CN, $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(8) $-NO_2$,

(9) oxo,

(10) $-C(=O)R^a$,

(11) $-CO_2R^a$,

(12) $-SR^a$,

(13) $-S(=O)R^a$,

(14) $-N(R^aR^b)$,

(15) $-C(=O)N(R^aR^b)$,

(16) $-C(=O)-C_{1-6}$ alkyl$-N(R^aR^b)$,

(17) $-N(R^a)C(=O)R^b$,

(18) $-SO_2R^a$,

(18) $-SO_2N(R^aR^b)$,

(19) $-N(R^a)SO_2R^b$,

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(20) $-R^m$,
(21) $-C_{1-4}$ alkyl-R^m,
(22) $-(CH_2)_{0-2}-N(R^a)-(CH_2)_{0-2}-R^m$,
(23) $-(CH_2)_{0-2}-O-(CH_2)_{0-2}-R^m$,
(24) $-(CH_2)_{0-2}-S-(CH_2)_{0-2}-R^m$,
(25) $-(CH_2)_{0-2}-C(=O)-(CH_2)_{0-2}-R^m$,
(26) $-C(=O)-O-(CH_2)_{0-2}-R^m$,
(27) $-C(=O)N(R^a)-R^m$, or
(28) $-C(=O)-C(=O)N(R^aR^b)$;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

In an aspect of this embodiment, the cycloalkyl, aryl, bicyclic carbocycle, saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle is optionally substituted with from 1 to 4 substituents each of which is independently selected from the groups (1) to (27).

In an aspect of this embodiment, R^k (i.e., the cycloalkyl, aryl, bicyclic carbocycle, saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle) is optionally substituted with from 1 to 4 substituents each of which is independently one of the substituents (1) to (19), and is optionally mono-substituted with one of the substituents (20) to (28). In a feature of this aspect, R^k is optionally substituted with from 1 to 4 substituents each of which is independently one of the substituents (1) to (19), and is mono-substituted with one of the substituents (20) to (28).

In another aspect of this embodiment, each R^m is independently C_{3-7} cycloalkyl; aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, wherein any N is optionally oxidized to form an N-oxide; or a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered, saturated or unsaturated heterocyclic ring containing from 1 to 3 heteroatoms selected from N, O and S; wherein

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the cycloalkyl or the aryl defined in R^m is optionally substituted with from 1 to 4 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-N(R^aR^b)$, phenyl, or $-(CH_2)_{1-2}$-phenyl;

the saturated heterocyclic ring defined in R^m is optionally substituted with from 1 to 4 substituents each of which is independently $-C_{1-4}$ alkyl optionally substituted with $-O-C_{1-4}$ alkyl, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, oxo, phenyl, $-(CH_2)_{1-2}$-phenyl, -C(=O)-phenyl, $-CO_2$-phenyl, $-CO_2-(CH_2)_{1-2}$-phenyl, a 5- or 6-membered saturated heterocyclic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, or a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; and

the heteroaromatic ring or the bicyclic heterocycle defined in R^m is optionally substituted with from 1 to 4 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, oxo, phenyl, or $-(CH_2)_{1-2}$-phenyl.

Another embodiment of the present invention is a compound of Formula (I), wherein R^k is phenyl; a 5- or 6-membered saturated heterocyclic ring containing 1 or 2 heteroatoms selected from 1 or 2 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms; a 5- or 6-membered heteroaromatic ring containing 1 or 2 heteroatoms selected from 1 or 2 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms; or a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered saturated heterocyclic ring containing 1 or 2 nitrogen atoms;

and all other variables are as originally defined;

or a pharmaceutically acceptable salt thereof.

In an aspect of this embodiment,

(a) the phenyl, the saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle is optionally substituted with from 1 to 3 substituents each of which is independently

(1) fluoro,

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(2) chloro,
(3) bromo,
(4) -OH
(5) $-CF_3$,
(6) $-C_{1-4}$ alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, -CN, $-O-C_{1-4}$ alkyl, $-OCF_3$, $-N(R^aR^b)$, $-C(=O)N(R^aR^b)$, or $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$,
(7) $-OCF_3$,
(8) $-O-C_{1-4}$ alkyl
(9) $-C(=O)R^a$,
(10) $-CO_2R^a$,
(11) $-SR^a$,
(12) $-SR^a$,
(13) $-N(R^aR^b)$,
(14) $-C(=O)N(R^aR^b)$,
(15) $-C(=O)-(CH_2)_{1-2}-N(R^aR^b)$,
(16) $-N(R^a)C(=O)R^b$, or
(17) $-SO_2R^a$;

(b) the phenyl is optionally mono-substituted with
(1) $-(CH_2)_{1-2}-R^m$, or
(2) $-(CH_2)_{0-2}-N(R^a)-(CH_2)_{0-2}-R^m$; and

(c) the saturated heterocyclic ring, heteroaromatic ring, or bicyclic heterocycle is optionally mono- or di-substituted with
(1) oxo
(2) $-(CH_2)_{1-2}-R^m$,
(3) $-O-(CH_2)_{1-2}-R^m$, or
(4) $-(CH_2)_{0-1}-C(=O)-(CH_2)_{0-2}-R^m$.

In a feature of the preceding aspect, each R^m is independently cyclopropyl; phenyl; a 5- or 6-membered saturated heterocyclic ring selected from pyrrolidinyl, imidazolidinyl, pyrazolidinyl, piperidinyl, piperazinyl, and morpholinyl; or a 5- or 6-membered heteroaromatic ring selected from thienyl, pyridyl optionally in the form of an N-oxide, imidazolyl, pyrrolyl, pyrazolyl, thiazolyl, isothiazolyl,

oxazolyl, isooxazolyl, oxadiazolyl, thiadiazolyl, pyrazinyl, pyrimidinyl, triazolyl, tetrazolyl, furanyl, and pyridazinyl; wherein

the cyclopropyl is unsubstituted;

the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, or $-N(R^aR^b)$;

the saturated heterocyclic ring is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, oxo, phenyl, $-(CH_2)_{1-2}$-phenyl, -C(=O)-phenyl, $-CO_2$-phenyl, or $-CO_2-CH_2$-phenyl; and

the heteroaromatic ring is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, oxo, phenyl, or $-(CH_2)_{1-2}$-phenyl.

Another embodiment of the present invention is a compound of Formula (I), wherein R^2 is:

(1) $-C_{1-6}$ alkyl,

(2) $-C_{1-6}$ alkyl substituted with $-N(R^aR^b)$,

(3) $-C_{1-6}$ alkyl substituted with phenyl, wherein the phenyl is:

(a) optionally substituted with from 1 to 4 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, or $-C_{0-4}$ alkyl-$N(R^aR^b)$; and

(b) optionally mono-substituted with $-C_{1-4}$ alkyl substituted with a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms selected from 1 or 2 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms;

wherein the heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently $-C_{1-6}$ alkyl, oxo, or a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms selected from 1 to 3 N atoms, 0 or 1 O atom, and 0 or 1 S atom; or

(4) $-C_{1-6}$ alkyl optionally substituted with -OH and substituted with a 5- or 6-membered saturated monocyclic heterocycle which contains from 1 to 3 heteroatoms selected from 1 to 3 N atoms, 0 or 1 O atoms, and 0

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or 1 S atoms; wherein the heterocycle is optionally substituted with from 1 to 4 substituents each of which is independently -C_{1-6} alkyl, -O-C_{1-6} alkyl, oxo, or phenyl; or

(5) -C_{1-6} alkyl substituted with a 5- or 6-membered heteroaromatic ring which contains from 1 to 3 heteroatoms selected from 1 to 3 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms; wherein the heteroaromatic ring is optionally substituted with from 1 to 4 substituents each of which is independently -C_{1-6} alkyl, -O-C_{1-6} alkyl, oxo, or phenyl;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

Another embodiment of the present invention is a compound of Formula (I) exactly as defined in the immediately preceding embodiment, except that when R^2 is -C_{1-6} alkyl substituted with -N(R^aR^b), it is with the proviso that -N(R^aR^b) is not attached to the carbon atom in the -C_{1-6} alkyl group that is attached to the ring nitrogen (i.e., that the -N(R^aR^b) group is not attached to the carbon atom alpha to the ring nitrogen).

Another embodiment of the present invention is a compound of Formula (I), wherein R^2 is methyl;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

Another embodiment of the present invention is a compound of Formula (I), wherein R^3 is -H or -C_{1-4} alkyl;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

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In an aspect of this embodiment, R^3 is -H or methyl. In another aspect of this embodiment, R^3 is -H.

Another embodiment of the present invention is a compound of Formula (I), wherein R^4 is C_{1-4} alkyl substituted with an aryl, which is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -C_{1-4} alkyl, -C_{1-4} alkyl-OR^a, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -CN, -NO_2, -$N(R^aR^b)$, -C_{1-4} alkyl-$N(R^aR^b)$, -C(=O)$N(R^aR^b)$, -C(=O)R^a, -CO_2R^a, -C_{1-4} alkyl-CO_2R^a, -OCO_2R^a, -SR^a, -S(=O)R^a, -SO_2R^a, -$N(R^a)SO_2R^b$, -$SO_2N(R^aR^b)$, -$N(R^a)C(=O)R^b$, -$N(R^a)CO_2R^b$, -C_{1-4} alkyl-$N(R^a)CO_2R^b$, methylenedioxy attached to two adjacent ring carbon atoms, phenyl, -C_{1-4} alkyl-phenyl, -O-phenyl, or -$(CH_2)_{0-2}$-het;

wherein het is a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, and het is optionally fused with a benzene ring, and is optionally substituted with 1 or 2 substituents each of which is independently -C_{1-4} alkyl, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, or -CO_2R^a;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

Another embodiment of the present invention is a compound of Formula (I), wherein R^4 is -CH_2-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, -C_{1-4} alkyl, -C_{1-4} fluoroalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} fluoroalkyl, -$(CH_2)_{1-2}$-$N(R^aR^b)$, -SO_2R^a, -$(CH_2)_{0-2}$-CO_2R^a, -$(CH_2)_{0-2}$-$N(R^a)CO_2R^b$, -NO_2, -SR^a, -$N(R^aR^b)$ or phenyl;

each R^a and R^b is independently is H or -C_{1-4} alkyl;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

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In an aspect of the preceding embodiment, R^4 is $-CH_2$-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents, each of which is independently -F, -Br, -Cl, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-SO_2-C_{1-4}$ alkyl, $-S-C_{1-4}$ alkyl, $-N(CH_3)_2$ or $-O-C_{1-4}$ fluoroalkyl. In another aspect of the preceding embodiment, R^4 is *p*-fluorobenzyl or 2,3-dimethoxybenzyl.

In another aspect of the preceding embodiment, the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, $-(CH_2)_{1-2}-N(R^aR^b)$, $-SO_2R^a$, $-(CH_2)_{0-2}-CO_2R^a$, $-(CH_2)_{0-2}-N(R^a)CO_2R^b$, $-NO_2$, or phenyl.

In an aspect of the preceding embodiment, the phenyl is optionally substituted with from 1 to 3 substituents, each of which is independently -F, -Br, -Cl, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, or $-O-C_{1-4}$ fluoroalkyl. In another aspect of the preceding embodiment, R^4 is *p*-fluorobenzyl or 2,3-dimethoxybenzyl.

A class of compounds of the present invention includes any compound of Formula (I), wherein

R^1 is $-R^k$;

R^k is phenyl which is

(a) optionally substituted with from 1 to 3 substituents each of which is independently:

(1) halogen,

(2) $-C_{1-6}$ alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently $-O-C_{1-6}$ alkyl, $-O-C_{1-6}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(3) $-C_{1-6}$ haloalkyl,

(4) $-O-C_{1-6}$ haloalkyl,

(5) $-C(=O)R^a$,

(6) $-CO_2R^a$,

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(7) $-C(=O)N(R^aR^b)$, or

(8) $-C(=O)-C_{1-6}$ alkyl-$N(R^aR^b)$; and

(b) optionally mono-substituted with

(1) $-C_{1-4}$ alkyl-R^m, or

(2) $-C_{0-4}$ alkyl-$N(R^a)-C_{0-4}$ alkyl-R^m;

wherein R^m is aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; or a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; wherein

the aryl defined in R^m is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, or $-N(R^aR^b)$;

the saturated heterocyclic ring defined in R^m is optionally substituted with from 1 to 3 substituents each of which is independently $-C_{1-4}$ alkyl or oxo, and is additionally optionally mono-substituted with phenyl, $-(CH_2)_{1-2}$-phenyl, $-C(=O)$-phenyl, $-CO_2$-phenyl, $-CO_2-(CH_2)_{1-2}$-phenyl, or a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; and

the heteroaromatic ring defined in R^m is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl or oxo;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

A sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (I), wherein

R^2 is methyl;

R^3 is -H;

R^4 is:

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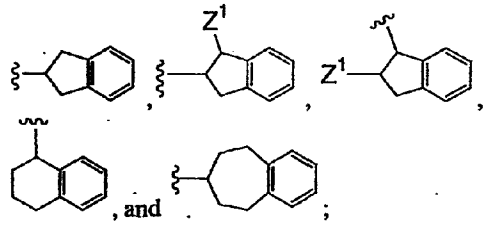
(1) $-CH_2$-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, $-(CH_2)_{1-2}-N(R^aR^b)$, $-SO_2R^a$, $-(CH_2)_{0-2}-CO_2R^a$, $-(CH_2)_{0-2}-N(R^a)CO_2R^b$, $-NO_2$, $-SR^a$, $-N(R^aR^b)$ or phenyl; or

(2) a fused bicyclic carbocycle selected from



wherein Z^1 is -H or -OH; and

each R^a and R^b is independently is H or $-C_{1-4}$ alkyl;

and all other variables are as defined in the class;

or a pharmaceutically acceptable salt thereof.

Another sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (I), wherein R^4 is 4-fluorobenzyl or 2,3-dimethoxybenzyl;

and all other variables are as defined in the class;

or a pharmaceutically acceptable salt thereof.

Still another sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (I), wherein R^2 is methyl; R^3 is -H; R^4 is 4-fluorobenzyl or 2,3-dimethoxybenzyl; each R^a and R^b is independently is H or $-C_{1-4}$ alkyl; and all other variables are as defined in the class; or a pharmaceutically acceptable salt thereof.

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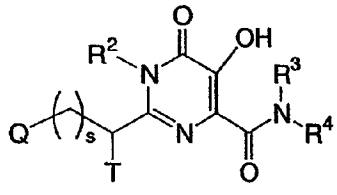
Another class of the present invention includes any compound of Formula (II):



(II);

wherein

Q is:

(1) methyl which is optionally substituted with 1 or 2 of -O-C_{1-4} alkyl,

(2) phenyl which is optionally substituted with from 1 to 3 substituents each of which is independently -F, -Cl, Br, -C_{1-4} alkyl, -CF_3, -O-C_{1-4} alkyl, -OCF_3, methylenedioxy attached to two adjacent carbon atoms, or phenyl, or

(3) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; wherein the saturated heterocyclic ring is optionally substituted with 1 or 2 substituents each of which is independently -F, -Cl, -Br, -C_{1-4} alkyl, oxo, phenyl, or -C(=O)-phenyl;

T is:

(1) -H,

(2) -OH,

(3) methyl or ethyl, optionally substituted with -OH or -O-C_{1-4} alkyl,

(4) -O-C_{1-4} alkyl

(5) -N(R^aR^b),

(6) -N(R^a)-$(CH_2)_2$-OH,

(7) -N(R^a)-CO_2R^b,

(8) -N(R^a)-C(=O)-$(CH_2)_{1-2}$-N(R^aR^b),

(9) -R^s,

(10) -$(CH_2)_{1-2}$-R^s, or

(11) -$(CH_2)_{0-2}$-N(R^a)-$(CH_2)_{0-3}$-R^s;

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R^s is:

(1) phenyl optionally substituted with from 1 to 4 substituents each of which is independently halogen, -C_{1-4} alkyl, -C_{1-4} alkyl-OR^a, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, or -$N(R^aR^b)$;

(2) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; which is optionally substituted with from 1 to 4 substituents each of which is independently -C_{1-4} alkyl, -C_{1-4} alkyl-OR^a, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, -C(=O)R^a, oxo, phenyl, or -CH_2-phenyl; or

(3) a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; which is optionally substituted with from 1 to 4 substituents each of which is independently -C_{1-4} alkyl, -C_{1-4} alkyl-OR^a, -C_{1-4} haloalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} haloalkyl, or oxo;

R^2 is

(1) -C_{1-4} alkyl,

(2) -C_{1-4} alkyl substituted with -$N(R^aR^b)$, or

(3) -C_{1-4} alkyl substituted with a 5- or 6-membered saturated monocyclic heterocycle which contains from 1 to 3 heteroatoms selected from 1 to 3 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms; wherein the saturated heterocycle is optionally substituted with from 1 to 4 substituents each of which is independently a -C_{1-4} alkyl;

R^3 is -H or -C_{1-4} alkyl;

R^4 is -CH_2-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, -C_{1-4} alkyl, -C_{1-4} fluoroalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} fluoroalkyl, -$(CH_2)_{1-2}$-$N(R^aR^b)$, -SO_2R^a, -$(CH_2)_{0-2}$-CO_2R^a, -$(CH_2)_{0-2}$-$N(R^a)CO_2R^b$, -NO_2, -SR^a, -$N(R^aR^b)$ or phenyl;

each R^a and R^b is independently is H or -C_{1-4} alkyl; and

s is an integer equal to zero, 1, or 2;

or a pharmaceutically acceptable salt thereof.

In an aspect of this class, R^4 is $-CH_2$-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, $-(CH_2)_{1-2}-N(R^aR^b)$, $-SO_2R^a$, $-(CH_2)_{0-2}-CO_2R^a$, $-(CH_2)_{0-2}-N(R^a)CO_2R^b$, $-NO_2$, or phenyl

A sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (II) exactly as defined in the preceding class, except that when R^2 is $-C_{1-4}$ alkyl substituted with $-N(R^aR^b)$, it is with the proviso that $-N(R^aR^b)$ is not attached to the carbon atom in the $-C_{1-4}$ alkyl group that is attached to the ring nitrogen (i.e., that the $-N(R^aR^b)$ group is not attached to the carbon atom alpha to the ring nitrogen).

Another sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (II), wherein

Q is phenyl;

T is:

(1) -H,

(2) $-N(R^aR^b)$,

(3) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; which is optionally substituted with 1 or 2 substituents each of which is independently $-C_{1-4}$ alkyl or $-C(=O)R^a$, or

(4) $-N(R^a)-(CH_2)_{1-2}$-heteroaromatic, wherein the heteroaromatic is a 5- or 6-membered ring containing 1 or 2 N atoms;

R^2 is methyl;

R^3 is -H; and

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R^4 is $-CH_2$-phenyl, wherein the phenyl is optionally substituted with 1 or 2 substituents each of which is independently -F, -Cl, -Br, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-SO_2CH_3$, $-SCH_3$, $-N(CH_3)_2$ or $-OCF_3$;

each R^a and R^b is independently -H, methyl or ethyl; and

s is an integer equal to zero or 1;

or a pharmaceutically acceptable salt thereof.

In an aspect of this subclass, R^4 is $-CH_2$-phenyl, wherein the phenyl is optionally substituted with 1 or 2 substituents each of which is independently -F, -Cl, -Br, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, or $-OCF_3$.

Another class of compounds of the present invention includes any compound of Formula (I), wherein

R^1 is $-R^k$;

R^k is (i) a 5- or 6-membered saturated heterocyclic ring containing from 0 to 1 oxygen atoms and from 1 to 3 nitrogen atoms or (ii) a bicyclic heterocycle which is a benzene ring fused to a 5- or 6-membered saturated heterocyclic ring containing from 0 to 1 oxygen atoms and from 1 to 3 nitrogen atoms;

wherein the saturated heterocyclic ring or bicyclic heterocycle is optionally substituted with from 1 to 3 substituents each of which is independently

(1) $-C_{1-4}$ alkyl, which is optionally substituted with from 1 to 4 substituents each of which is independently halogen, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-C(=O)-(CH_2)_{0-2}N(R^aR^b)$, $N(R^a)-C(=O)-(CH_2)_{0-2}N(R^bR^c)$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(2) -OH,

(3) $-C(=O)R^a$,

(4) $-CO_2R^a$,

(5) $-C(=O)N(R^aR^b)$,

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(6) $-C(=O)-C_{1-6}$ alkyl-$N(R^aR^b)$,

(7) $-SR^a$,

(8) $-S(=O)R^a$,

(9) $-SO_2R^a$,

(10) $-N(R^aR^b)$,

(11) $-R^m$,

(12) $-C_{1-4}$ alkyl-R^m, wherein the alkyl is optionally substituted with from 1 to 4 substituents each of which is independently halogen, -OH, -CN, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-S(=O)R^a$, $-N(R^aR^b)$, $-N(R^a)CO_2R^b$, $-SO_2R^a$, $-N(R^a)SO_2R^b$, $-SO_2N(R^aR^b)$, or $-N(R^a)-C(R^b)=O$,

(13) $-C_{0-4}$ alkyl-$N(R^a)-C_{0-4}$ alkyl-R^m,

(14) $-C_{0-4}$ alkyl-$O-C_{0-4}$ alkyl-R^m,

(15) $-C_{0-4}$ alkyl-$S-C_{0-4}$ alkyl-R^m,

(16) $-C_{0-4}$ alkyl-$C(=O)-C_{0-4}$ alkyl-R^m,

(17) $-C(=O)-O-C_{0-4}$ alkyl-R^m, or

(18) $-C(=O)N(R^a)-C_{0-4}$ alkyl-R^m;

wherein each R^m is independently $-C_{3-6}$ cycloalkyl; aryl selected from phenyl and naphthyl; a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S; or a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S, wherein any N is optionally oxidized to form an N-oxide; wherein

the aryl is optionally substituted with from 1 to 3 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-CF_3$, $-O-C_{1-4}$ alkyl, $-OCF_3$, or $-N(R^aR^b)$;

the saturated heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently $-C_{1-4}$ alkyl or oxo, and is additionally optionally mono-substituted with phenyl, $-(CH_2)_{1-2}$-phenyl, $-C(=O)$-phenyl, $-CO_2$-phenyl, or $-CO_2-(CH_2)_{1-2}$-phenyl; and

the heteroaromatic ring is optionally substituted with 1 or 2 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, or oxo;

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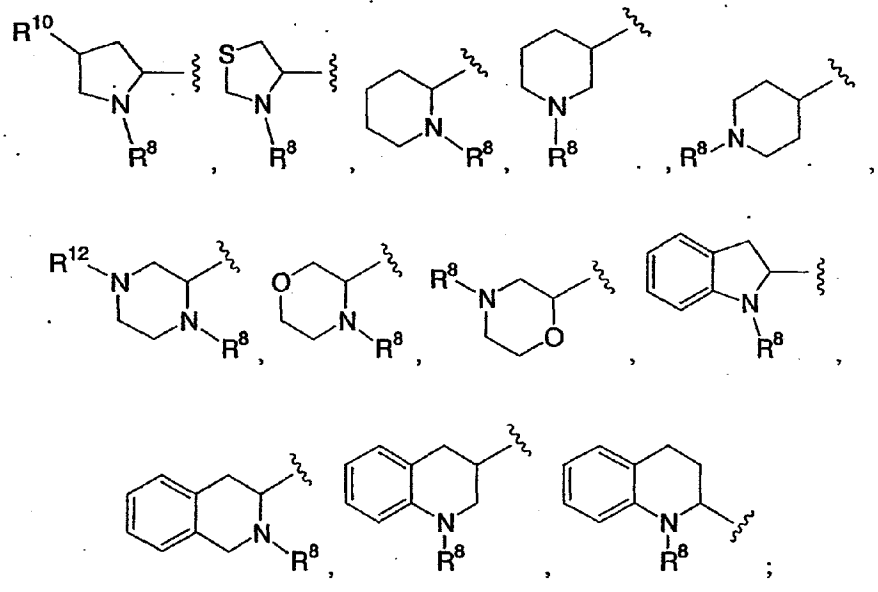
and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

A sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (I), wherein

R^1 is:



R^8 is:

(1) -H,

(2) $-C_{1-4}$ alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, $-O-C_{1-4}$ alkyl, $-OCF_3$, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-N(R^aR^b)$, or $-C(=O)N(R^aR^b)$,

(3) $-C(=O)R^a$,

(4) $-CO_2R^a$,

(5) $-C(=O)N(R^aR^b)$,

(6) $-C(=O)-(CH_2)_{1-2}-N(R^aR^b)$,
(7) $-SO_2R^a$,
(8) $-(CH_2)_{1-2}-R^m$,
(9) $-(CH_2)_{0-2}-C(=O)-(CH_2)_{0-2}-R^m$,
(10) $-C(=O)-O-(CH_2)_{0-2}-R^m$, or
(11) $-C(=O)N(R^a)-(CH_2)_{0-2}-R^m$;

R^{10} is -H, -OH, $-C_{1-4}$ alkyl, $-O-C_{1-4}$ alkyl, $-N(R^aR^b)$, or $-O-(CH_2)_{1-2}-R^m$;

R^{12} is

(1) -H,
(2) $-C_{1-4}$ alkyl, which is optionally substituted with 1 or 2 substituents each of which is independently -OH, $-O-C_{1-4}$ alkyl, $-OCF_3$, $-C(=O)R^a$, $-CO_2R^a$, $-SR^a$, $-N(R^aR^b)$, or $-C(=O)N(R^aR^b)$,
(3) $-C(=O)R^a$,
(4) $-CO_2R^a$,
(5) $-C(=O)-(CH_2)_{1-2}-N(R^aR^b)$, or
(6) $-SO_2R^a$;

R^2 is methyl;

R^3 is -H or methyl;

R^4 is $-CH_2$-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, $-(CH_2)_{1-2}-N(R^aR^b)$, $-SO_2R^a$, $-(CH_2)_{0-2}-CO_2R^a$, $-(CH_2)_{0-2}-N(R^a)CO_2R^b$, $-NO_2$, $-SR^a$, $-N(R^aR^b)$ or phenyl; and

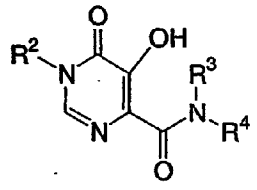
each R^a and R^b is independently -H or $-C_{1-4}$ alkyl;

or a pharmaceutically acceptable salt thereof.

In an aspect of this subclass, R^4 is $-CH_2$-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently

fluoro, bromo, chloro, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, $-(CH_2)_{1-2}-N(R^aR^b)$, $-SO_2R^a$, $-(CH_2)_{0-2}-CO_2R^a$, $-(CH_2)_{0-2}-N(R^a)CO_2R^b$, $-NO_2$, or phenyl.

Another class of the present invention includes any compound of Formula (III):



(III);

wherein R^2 is:

(1) $-C_{1-6}$ alkyl,

(2) $-C_{1-6}$ alkyl substituted with $-N(R^aR^b)$,

(3) $-C_{1-6}$ alkyl substituted with phenyl which is:

(a) optionally substituted with from 1 to 4 substituents each of which is independently halogen, $-C_{1-4}$ alkyl, $-C_{1-4}$ haloalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ haloalkyl, or $-C_{0-6}$ alkyl-$N(R^aR^b)$; and

(b) optionally mono-substituted with $-C_{1-4}$ alkyl substituted with a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms selected from 1 or 2 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms;

wherein the heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently $-C_{1-6}$ alkyl, oxo, or a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms selected from 1 to 3 N atoms, 0 or 1 O atom, and 0 or 1 S atom;

(4) $-C_{1-6}$ alkyl optionally substituted with -OH and substituted with a 5- or 6-membered saturated monocyclic heterocycle which contains from 1 to 3 heteroatoms selected from 1 to 3 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms; wherein the heterocycle is optionally substituted with

from 1 to 4 substituents each of which is independently -C_{1-6} alkyl, -O-C_{1-6} alkyl, oxo, or phenyl; or

(5) -C_{1-6} alkyl substituted with a 5- or 6-membered heteroaromatic ring which contains from 1 to 3 heteroatoms selected from 1 to 3 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms; wherein the heteroaromatic ring is optionally substituted with from 1 to 4 substituents each of which is independently -C_{1-6} alkyl, -O-C_{1-6} alkyl, oxo, or phenyl;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

A sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (III) exactly as defined in the preceding class, except that when R^2 is -C_{1-6} alkyl substituted with -N(R^aR^b), it is with the proviso that -N(R^aR^b) is not attached to the carbon atom in the -C_{1-6} alkyl group that is attached to the ring nitrogen (i.e., that the -N(R^aR^b) group is not attached to the carbon atom alpha to the ring nitrogen).

Another sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (III), wherein

R^2 is:

(1) -C_{1-4} alkyl,

(2) -$(CH_2)_{1-3}$-N(R^aR^b),

(3) -$(CH_2)_{1-3}$-phenyl, wherein the phenyl is:

(a) optionally substituted with from 1 to 3 substituents each of which is independently fluoro, chloro, bromo, -C_{1-4} alkyl, -CF_3, -O-C_{1-4} alkyl, -O-CF_3, or -$(CH_2)_{1-3}$-N(R^aR^b); and

(b) optionally mono-substituted with -$(CH_2)_{1-3}$-saturated heterocycle which is a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms selected from 1 or 2 N atoms, 0 or 1 O atoms, and 0 or 1 S

atoms, wherein the heterocyclic ring is optionally substituted with from 1 to 3 substituents each of which is independently $-C_{1-4}$ alkyl or pyridyl;

(4) $-(CH_2)_{1-3}$-saturated heterocycle, wherein the $-(CH_2)_{1-3}-$ moiety is optionally substituted with an -OH and the saturated heterocycle is a 5- or 6-membered saturated monocyclic heterocycle which contains from 1 to 3 heteroatoms selected from 1 to 3 N atoms, 0 or 1 O atoms, and 0 or 1 S atoms; wherein the heterocycle is optionally substituted with from 1 to 3 substituents each of which is independently a $-C_{1-4}$ alkyl; or

(5) $-(CH_2)_{1-3}$-pyridyl;

R^3 is -H or methyl;

R^4 is $-CH_2$-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, $-(CH_2)_{1-2}-N(R^aR^b)$, $-SO_2R^a$, $-(CH_2)_{0-2}-CO_2R^a$, $-(CH_2)_{0-2}-N(R^a)CO_2R^b$, $-NO_2$, $-SR^a$, $-N(R^aR^b)$ or phenyl; and

each R^a and R^b is independently is H or $-C_{1-4}$ alkyl;

or a pharmaceutically acceptable salt thereof.

In an aspect of this subclass, R^4 is $-CH_2$-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, $-C_{1-4}$ alkyl, $-C_{1-4}$ fluoroalkyl, $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ fluoroalkyl, $-(CH_2)_{1-2}-N(R^aR^b)$, $-SO_2R^a$, $-(CH_2)_{0-2}-CO_2R^a$, $-(CH_2)_{0-2}-N(R^a)CO_2R^b$, $-NO_2$, or phenyl.

Another class of compounds of the present invention includes any compound of Formula (I), wherein

R^1 is $-C(=O)NH-(CH_2)_{1-2}-R^k$; and

R^k is (i) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S, or (ii) a 5- or 6-membered

heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S;

and all other variables are as originally defined above;

or a pharmaceutically acceptable salt thereof.

A sub-class of the preceding class of compounds of the present invention includes any compounds of Formula (I), wherein

R^1 is -C(=O)NH-$(CH_2)_{1-2}$-R^k ; and

R^k is (i) a 5- or 6-membered saturated heterocyclic ring containing from 1 to 3 heteroatoms independently selected from N, O and S, or (ii) a 5- or 6-membered heteroaromatic ring containing from 1 to 3 heteroatoms independently selected from N, O and S;

R^2 is methyl;

R^3 is -H or methyl;

R^4 is -CH_2-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, -C_{1-4} alkyl, -C_{1-4} fluoroalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} fluoroalkyl, -$(CH_2)_{1-2}$-N(R^aR^b), -SO_2R^a, -$(CH_2)_{0-2}$-CO_2R^a, -$(CH_2)_{0-2}$-N(R^a)CO_2R^b, -NO_2, -SR^a, -N(R^aR^b) or phenyl; and

each R^a and R^b is independently -H or -C_{1-4} alkyl;

or a pharmaceutically acceptable salt thereof.

In an aspect of this subclass, R^4 is -CH_2-phenyl, wherein the phenyl is optionally substituted with from 1 to 3 substituents each of which is independently fluoro, bromo, chloro, -OH, -C_{1-4} alkyl, -C_{1-4} fluoroalkyl, -O-C_{1-4} alkyl, -O-C_{1-4} fluoroalkyl, -$(CH_2)_{1-2}$-N(R^aR^b), -SO_2R^a, -$(CH_2)_{0-2}$-CO_2R^a, -$(CH_2)_{0-2}$-N(R^a)CO_2R^b, -NO_2, or phenyl.

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It is to be understood that additional embodiments of the present invention include, but are not limited to, compounds of Formula I wherein each of two or three or more of R^1, R^2, R^3, R^4, R^a, R^b, R^c, R^d, R^k and R^m is independently defined in accordance with its definition in one of the embodiments or an aspect thereof as set forth above, or in accordance with its definition in one of the foregoing classes set forth above or a sub-class or feature thereof. Any and all possible combinations of these variables in Formula I are additional embodiments within the scope of the present invention.

An aspect of the present invention is a compound selected from the group consisting of

N-(2-ethoxybenzyl)-5-hydroxy-1-methyl-2-(4-methylphenyl)-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-5-hydroxy-1-methyl-2-(4-methylphenyl)-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-2-{4-[(dimethylamino)methyl]phenyl}-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-2-{4-[(dimethylamino)methyl]phenyl}-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-5-hydroxy-1-methyl-6-oxo-2-[4-(pyrrolidin-1-ylmethyl)phenyl]-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-1-methyl-6-oxo-2-[4-(pyrrolidin-1-ylmethyl)phenyl]-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-1-methyl-6-oxo-2-[4-(piperidin-1-ylmethyl)phenyl]-1,6-dihydropyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-5-hydroxy-1-methyl-2-[4-(morpholin-4-ylmethyl)phenyl]-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

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N-(4-fluorobenzyl)-5-hydroxy-1-methyl-2-[4-(morpholin-4-ylmethyl)phenyl]-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-1-methyl-2-{4-[(4-methylpiperazin-1-yl)methyl]phenyl}-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

2-{4-[(diethylamino)methyl]phenyl}-N-(2,3-dimethoxybenzyl)-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

2-{4-[(diethylamino)methyl]phenyl}-N-(4-fluorobenzyl)-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

2-[(dimethylamino)(phenyl)methyl]-N-(4-fluorobenzyl)-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-2-[(4-formylpiperazin-1-yl)(phenyl)methyl]-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-1-methyl-6-oxo-2-{phenyl[(pyridin-3-ylmethyl)amino]methyl}-1,6-dihydropyrimidine-4-carboxamide;

2-benzyl-1-[2-(dimethylamino)ethyl]-N-(4-fluorobenzyl)-5-hydroxy-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

1-[2-(dimethylamino)ethyl]-N-(4-fluorobenzyl)-5-hydroxy-2-(2-methylphenyl)-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-1-methyl-2-(4-methylphenyl)-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

2-benzyl-N-(2,3-dimethoxybenzyl)-1-[2-(dimethylamino)ethyl]-5-hydroxy-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

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2-{4-[(4-ethylpiperazin-1-yl)methyl]phenyl}-N-(4-fluorobenzyl)-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-1-methyl-6-oxo-2-{4-[(2-pyridin-3-ylpiperidin-1-yl)methyl]phenyl}-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(2,3-dimethoxybenzyl)-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-[4-fluoro-2-(trifluoromethyl)benzyl]-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(3-chloro-4-methylbenzyl)-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

5-hydroxy-N-[(1R,2S)-2-hydroxy-2,3-dihydro-1H-inden-1-yl]-1-methyl-2-{4-[(4-methylpiperazin-1-yl)methyl]phenyl}-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-2-(4-{[(2R)-2-(methoxymethyl)pyrrolidin-1-yl]methyl}phenyl)-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-5-hydroxy-2-(4-{[(2S)-2-(methoxymethyl)pyrrolidin-1-yl]methyl}phenyl)-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

N-(4-fluorobenzyl)-2-(4-{[(4-fluorobenzyl)amino]methyl}phenyl)-5-hydroxy-1-methyl-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

2-benzyl-N-(4-fluorobenzyl)-5-hydroxy-1-(2-morpholin-4-ylethyl)-6-oxo-1,6-dihydropyrimidine-4-carboxamide;

1-[2-(dimethylamino)ethyl]-N-(4-fluorobenzyl)-5-hydroxy-6-oxo-1,6-dihydropyrimidine-4-carboxamide;