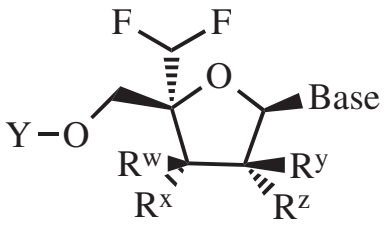
virus encoded polymerase subunits (PA, PB1, PB2) and a virus encoded single stranded RNA binding protein (NP) are necessary and sufficient to perform RNA replication.

SUMMARY

[0005] The compounds of Formula I are useful for the treatment of diseases mediated by Influenza and for pharmaceutical compositions comprising such compounds.

[0006] The application provides a compound of Formula I



I

wherein:

Y is H or P(=X)(R')(R);

R is O-R^1 or $NHR^{1'}$;

$R^{1'}$ is $-C(R^{2a})(R^{2b})C(=O)OR^3$;

R' is $N(R^4)C(R^{2a})(R^{2b})C(=O)OR^3$, –OP(=O)(OH)OP(=O)(OH)OH, or $–OR^3$;

R^1 is H, lower haloalkyl, or aryl, wherein aryl is phenyl or naphthylenyl, optionally substituted with one or more lower alkyl, lower alkenyl, lower alkynyl, lower alkoxy, halo, lower haloalkyl, $-N(R^{1a})_2$, acylamino, $-SO_2N(R^{1a})_2$, $-C(=O)R^{1b}$, $-SO_2(R^{1c})$, $-NHSO_2(R^{1c})$, nitro, cyano, or $R^{1''}$;

each R^{1a} is independently H or lower alkyl;

each R^{1b} is independently $-OR^{1a}$ or $-N(R^{1a})_2$;

each R^{1c} is lower alkyl;

each R^{2a} and R^{2b} is independently H, lower alkyl, $-(CH_2)_rN(R^{1a})_2$, lower hydroxyalkyl, $-CH_2SH$, $-(CH_2)S(O)_pMe$, $-(CH_2)_nNHC(=NH)NH_2$, (1*H*-indol-3-yl)methyl, (1*H*-indol-4-yl)methyl, $-(CH2)_mC(=O)R^{1b}$, aryl and aryl lower alkyl, wherein aryl is optionally substituted with one or more hydroxy, lower alkyl, lower alkoxy, halo, nitro or cyano;

m is 0, 1, or 2;

n is 1, 2, or 3;

p is 1 or 2;

r is 1 or 2;

or R^{2a} is H and R^{2b} and R^4 together form $(CH_2)_n$;

each R^3 is independently H, lower alkyl, lower haloalkyl, phenyl or phenyl lower alkyl, wherein phenyl and phenyl lower alkyl are optionally substituted with lower alkoxy;

or R^3 and $R^{1''}$ together form CH_2;

each R^4 is independently H, lower alkyl;

or R^{2b} and R^4 together form $(CH_2)_3$;

R^w, R^y, and R^z are each independently H, OH or F;

R^x is H, OH, or F;

or R^3 and R^x together form a bond;

or R^1 and R^x together form a bond;

X is O or S;

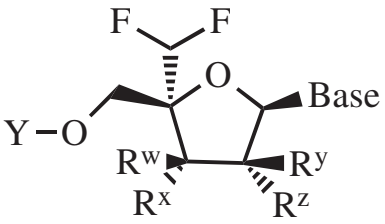
Base is uracil, cytosine, guanine, adenine, thymine, or heterocycloalkyl, each of which may optionally be substituted with one or more hydroxy, lower alkyl, lower alkoxy, halo, nitro or cyano;

with the proviso that if Rw is H, Ry is H, and Rz is H, then Rz is not H; and

with the proviso that Formula I is not ((2R,3R,4R,5R)-5-(4-amino-2-oxopyrimidin-1(2H)-yl)-2-(difluoromethyl)-4-fluoro-3-hydroxytetrahydrofuran-2-yl)methyl tetrahydrogen triphosphate;

or a pharmacologically acceptable salt thereof.

[0006a] The application provides, in one aspect, a compound of Formula I



I

wherein:

Y is H or P(=X)(R')(R);

R is O-R^1 or $NHR^{1'}$;

$R^{1'}$ is $-C(R^{2a})(R^{2b})C(=O)OR^3$;

R' is $N(R^4)C(R^{2a})(R^{2b})C(=O)OR^3$, –OP(=O)(OH)OP(=O)(OH)OH, or $–OR^3$;

R^1 is H, halo-C_{1-7}-alkyl, or aryl, wherein aryl is phenyl or naphthylenyl, optionally substituted with one or more C_{1-7}-alkyl, C_{2-7}-alkenyl, C_{2-7}-alkynyl, C_{1-7}-alkoxy, halo, halo-C_{1-7}-alkyl, $-N(R^{1a})_2$, acylamino, $-SO_2N(R^{1a})_2$, $-C(=O)R^{1b}$, $-SO_2(R^{1c})$, $-NHSO_2(R^{1c})$, nitro, cyano, or $R^{1''}$;

each R^{1a} is independently H or C_{1-7}-alkyl;

each R^{1b} is independently $-OR^{1a}$ or $-N(R^{1a})_2$;

each R^{1c} is C_{1-7}-alkyl;

each R^{2a} and R^{2b} is independently H, C_{1-7}-alkyl, $-(CH_2)_rN(R^{1a})_2$, hydroxy-C_{1-7}-alkyl, $-CH_2SH$, $-(CH_2)S(O)_pMe$, $-(CH_2)_nNHC(=NH)NH_2$, (1*H*-indol-3-yl)methyl, (1*H*-indol-4-yl)methyl, $-(CH2)_mC(=O)R^{1b}$, aryl and aryl C_{1-7}-alkyl, wherein aryl is optionally substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano;

m is 0, 1, or 2;

n is 1, 2, or 3;

p is 1 or 2;

r is 1 or 2;

or R^{2a} is H and R^{2b} and R^4 together form $(CH_2)_n$;

each R^3 is independently H, C_{1-7}-alkyl, halo-C_{1-7}-alkyl, phenyl or phenyl C_{1-7}-alkyl, wherein phenyl and phenyl C_{1-7}-alkyl are optionally substituted with C_{1-7}-alkoxy;

or R^3 and $R^{1''}$ together form CH_2;

each R^4 is independently H, C_{1-7}-alkyl;

or R^{2b} and R^4 together form $(CH_2)_3$;

R^w, R^y, and R^z are each independently H, OH or F;

R^x is H, OH, or F;

or R^3 and R^x together form a bond;

or R^1 and R^x together form a bond;

X is O or S;

Base is uracil, cytosine, guanine, adenine, thymine, or heterocycloalkyl, each of which may optionally be substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano, wherein said heterocycloalkyl is an optionally substituted saturated monocyclic, bicyclic or tricyclic heterocyclic system;

with the proviso that if R^w is H, R^y is H, and R^z is H, then R^z is not H;

with the proviso that when Base is guanine or adenine, Y is not H; and

with the proviso that Formula I is not ((2R,3R,4R,5R)-5-(4-amino-2-oxopyrimidin-1(2H)-yl)-2-(difluoromethyl)-4-fluoro-3-hydroxytetrahydrofuran-2-yl)methyl tetrahydrogen triphosphate;

or a pharmacologically acceptable salt thereof.

[0006b] The application provides, in another aspect, a compound selected from the list consisting of:

4'-Difluoromethyluridine;

4'-Difluoromethyluridine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4'-Difluoromethyluridine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4'-Difluoromethyluridine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4'-Difluoromethyluridine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate};

4’-Difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate};

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] uridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] uridine;

4’-Difluoromethyluridine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyluridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluorouridine;

4’-Difluoromethyl-5-fluorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate};

4’-Difluoromethyl5-fluorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate};

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorouridine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorouridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] -5-fluorouridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] -5-fluorouridine;

4’-Difluoromethyl-5-fluorouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluorouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-5-chlorouridine;

4’-Difluoromethyl-5-chlorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-chlorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-chlorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-chlorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-chlorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-chlorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-chlorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate};

4’-Difluoromethyl-5-chlorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate};

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorouridine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorouridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-chlorouridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-chlorouridine;

4’-Difluoromethyl-5-chlorouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-5-chlorouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylcytidine;

4’-Difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(benzyloxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate};

4’-Difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate};

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] cytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] cytidine;

4’-Difluoromethylcytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylcytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluorocytidine;

4’-Difluoromethyl-5-fluorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate};

4’-Difluoromethyl-5-fluorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate};

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorocytidine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] -5-fluorocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] -5-fluorocytidine;

4’-Difluoromethyl-5-fluorcytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluorocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-5-chlorocytidine;

4’-Difluoromethyl-5-chlorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-chlorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl5-chlorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-chlorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-chlorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-chlorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-chlorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate};

4’-Difluoromethyl-5-chlorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate};

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorocytidine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] -5-chlorocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] -5-chlorocytidine;

4’-Difluoromethyl-5-chlorocytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-5-chlorocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyladenosine;

4’-Difluoromethyladenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyladenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyladenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyladenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyladenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethyladenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-adenosine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-adenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] adenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] adenosine;

4’-Difluoromethyladenosine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyladenosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-7-adenosine;

4’-Difluoromethyl-7-adenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-7-adenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-7-adenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-7-adenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-7-adenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-7-adenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethyl-7-adenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-7-adenosine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-7-adenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-7-adenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] adenosine;

4’-Difluoromethyl-7-adenosine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-7-adenosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylguanosine;

4’-Difluoromethylguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethylguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-guanosine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-guanosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] guanosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] guanosine;

4’-Difluoromethylguanosine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylguanosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] uridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] uridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-uridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-chlorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-chlorouridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] cytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] cytidine;

2’-Deoxy-4’-difluoromethyl-2’-fluorocytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’-fluorocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-cytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-fluorocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-chlorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-chlorocytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5-chlorocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-adenosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-adenosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] adenosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] adenosine;

2’-Deoxy-4’-difluoromethyl-2’-fluoroadenosine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’-fluoroadenosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethyladenosine;

2’-Deoxy-2’-fluoro-4’-difluoromethylguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-guanosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-guanosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] guanosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] guanosine;

2’-Deoxy-4’-difluoromethyl-2’-fluoroguanosine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’-fluoroguanosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethylarauridine;

2’-Deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] arauridine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] arauridine;

2’-Deoxy-4’-difluoromethyl-2’-fluoroarauridine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’-fluoroarauridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-arauridine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-arauridine;

2’-Deoxy-4’-difluoromethyl-2’,5-difluoroarauridine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’,5-difluoroarauridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylarauridine;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethylarauridine-5'-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethylarauridine-5'-{*N,N'*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethylarauridine-5'-{*N,N'*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethyl-5'-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethyl-5'-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethyl-5'-*O*-[bis(4-methoxyphenoxy)phosphinyl]-arauridine;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethyl-5'-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-arauridine;

4-Chloro-2'-deoxy-4'-difluoromethyl-2'-fluoroarauridine-3',5'-cyclic phosphoric acid isopropyl ester;

4-Chloro-2'-deoxy-4'-difluoromethyl-2'-fluoroarauridine-3',5'-cyclic thiophosphoric acid isopropyl ester;

2'-Deoxy-2'-fluoro-4'-difluoromethylaracytidine;

2'-Deoxy-2'-fluoro-4'-difluoromethylaracytidine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2'-Deoxy-2'-fluoro-4'-difluoromethlaracytidine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2'-Deoxy-2'-fluoro-4'-difluoromethylaracytidine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2'-Deoxy-2'-fluoro-4'-difluoromethylaracytidine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] aracytidine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] aracytidine;

2’-Deoxy-4’-difluoromethyl-2’-fluoroaracytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’-fluoroaracytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethylaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-aracytidine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-aracytidine;

2’-Deoxy-4’-difluoromethyl-2’,5-difluoroaracytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’,5-difluoroaracytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4-Chloro-2’-deoxy-2’fluoro-4’-difluoromethylaracytidine;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethylaracytidine-5'-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethylaracytidine-5'-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethylaracytidine-5'-{*N,N'*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethylaracytidine-5'-{*N,N'*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethyl-5'-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethyl-5'-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethyl-5'-*O*-[bis(4-methoxyphenoxy)phosphinyl]-aracytidine;

4-Chloro-2'-deoxy-2'-fluoro-4'-difluoromethyl-5'-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-aracytidine;

4-Chloro-2'-deoxy-4'-difluoromethyl-2'-fluoroaracytidine-3',5'-cyclic phosphoric acid isopropyl ester;

4-Chloro-2'-deoxy-4'-difluoromethyl-2'-fluoroaracytidine-3',5'-cyclic thiophosphoric acid isopropyl ester;

2'-Deoxy-2'-fluoro-4'-difluoromethylaraadenosine;

2'-Deoxy-2'-fluoro-4'-difluoromethylaraadenosine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2'-Deoxy-2'-fluoro-4'-difluoromethlaraadenosine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2'-Deoxy-2'-fluoro-4'-difluoromethylaraadenosine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraadenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraadenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraadenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate

2’-Deoxy-2’-fluoro-4’-difluoromethylaraadenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraadenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-araadenosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-araadenosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] araadenosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] araadenosine;

2’-Deoxy-4’-difluoromethyl-2’-fluoroaraadenosine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’-fluoroaraadenosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraguanosine;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethlaraguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethylaraguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-araguanosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-araguanosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] araguanosine;

2’-Deoxy-2’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] araguanosine;

2’-Deoxy-4’-difluoromethyl-2’-fluoroaraguanosine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-4’-difluoromethyl-2’-fluoroaraguanosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyluridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] uridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] uridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyluridine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Dideoxy-2’-difluoro-4’-difluoromethyluridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Dideoxy-2’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-uridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-chlorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-chlorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-chlorouridine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-chlorouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] cytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] cytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytdine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethylcytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroucytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluorocytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluorocytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-cytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5-fluorocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

5-Chloro-2’-deoxy-2’,2’-difluoro-4’-difluoromethylcytidine;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethylcytidine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethylcytidine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-2'-deoxy-2,2''-difluoro-4'-difluoromethylcytidine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethylcytidine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethylcytidine-5'-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethylcytidine-5'-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethylcytidine-5'-{*N,N'*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethylcytidine-5'-{*N,N'*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethyl-5'-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl) cytidine;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethyl-5'-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl) cytidine;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethyl-5'-*O*-[bis(4-methoxyphenoxy)phosphinyl] cytidine;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethyl-5'-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] cytidine;

5-Chloro-2'-deoxy-2',2'-difluoro-4'-difluoromethylcytidine-3',5'-cyclic phosphoric acid isopropyl ester;

2'-Deoxy-2',2'-fluoro-4'-difluoromethylcytidine-3',5'-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’2’-difluoro-4’-difluoromethyladenosine;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-adenosine;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-adenosine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] adenosine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] adenosine;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethyladenosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] guanosine;

2’-Deoxy-2’,2’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] guanosine;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-3’,5’-cyclic phosphoric acid isopropyl ester;

2’-Deoxy-2’,2’-difluoro-4’-difluoromethylguanosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylarauridine;

4’-Difluoromethylarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethlarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate};

4’-Difluoromethylarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate};

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] arauridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] arauridine;

4’-Difluoromethylarauridine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylarauridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluoroarauridine;

4’-Difluoromethyl-5-fluoroarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate

4’-Difluoromethyl-5-fluoroarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate

4’-Difluoromethyl-5-fluoroarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate

4’-difluoromethyl-5-fluoroarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethyl-5-fluoroarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroarauridine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroarauridine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluoroarauridine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-fluoroarauridine;

4’-Difluoromethyl—5-fluoroarauridine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluoroarauridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

5-Chloro-4’-difluoromethylarauridine;

5-Chloro-4’-difluoromethylarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylarauridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylarauridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylarauridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro -4’-difluoromethylarauridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

5-Chloro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-arauridine;

5-Chloro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-arauridine;

5-Chloro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-arauridine;

5-Chloro-4’-difluoromethylarauridine-3’,5’-cyclic phosphoric acid isopropyl ester;

5-Chloro-4’-difluoromethylarauridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylaracytidine;

4’-Difluoromethylaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethlaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethylaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] aracytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] aracytidine;

4’-Difluoromethylaracytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylaracytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluoroaracytidine;

4’-Difluoromethyl-5-fluoroaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-difluoromethyl-5-fluoroaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethyl-5-fluoroaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroaracytidine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroaracytidine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluoroaracytidine;

2’-Deoxy-2’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-fluoroaracytidine;

4’-Difluoromethyl—5-fluoroaracytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluoroaracytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

5-Chloro-4’-difluoromethylaracytidine;

5-Chloro-4’-difluoromethylaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylaracytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4-Chloro-2’-deoxy-2’-fluoro-4’-difluoromethylaracytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylaracytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro -4’-difluoromethylaracytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

5-Chloro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-aracytidine;

5-Chloro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-aracytidine;

5-Chloro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-aracytidine;

5-Chloro-4’-difluoromethylaracytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

5-Chloro-4’-difluoromethylaracytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylaraadenosine;

4’-Difluoromethylaraadenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethlaraadenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaraadenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylaraadenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaraadenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylaraadenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaraadenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethylaraadenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-araadenosine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-araadenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] araadenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] araadensoine;

4’-Difluoromethylaraadenosine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylaraadenosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylaraguanosine;

4’-Difluoromethylaraguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethlaraadenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaraguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylaraguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaraguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylaraguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylaraguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethylaraguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-araguanosine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-araguanosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] araguanosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] araguanosine;

4’-Difluoromethylaraguanosine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylaraguanosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] uridine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] uridine;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] cytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] cytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylouridine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylouridine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylouridine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylouridine;

5-Chloro-3’-deoxy-3’-fluoro-4’-difluoromethylxylouridine;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylouridine;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylouridine;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylocytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylocytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylocytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylocytidine;

3’-Deoxy-3’5-difluoro-4’-difluoromethylxylocytidine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylocytidine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylocytidine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylocytidine;

3’-Deoxy-3’,5-difluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylocytidine;

5-Chloro-3’-deoxy-3’-fluoro-4’-difluoromethylxylocytidine;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylocytidine;

5-Chloro-3’-deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylocytidine;

5-Chloro-3’-deoxy -3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylocytidine;

5-Chloro-3’-deoxy 3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylocytidine;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloadenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xyloadenosine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xyloadenosine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xyloadenosine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xyloadenosine;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethylxyloguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xyloguanosine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xyloguanosine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xyloguanosine;

3’-Deoxy-3’-fluoro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xyloguanosine;

4’-Difluoromethylxylouridine;

4’-Difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylouridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylouridine;

4’-Difluoromethylxylouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylxylouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluoroxylouridine;

4’-Difluoromethyl-5-fluoroxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluororxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethyl-5-fluororxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroxylouridine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroxylouridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluoroxylouridine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-fluororxylouridine;

4’-Difluoromethyl-5-fluoroxylouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluoroxylouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

5-Chloro-4’-difluoromethylxylouridine;

5-Chloro-4’-difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylxylouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylxylouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylxylouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro-4’-difluoromethylxylouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

5-Chloro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylouridine;

5-Chloro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylouridine;

5-Chloro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylouridine;

5-Chloro-4’-difluoromethylxylouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

5-Chloro-4’-difluoromethylxylouridine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylxylocytidine;

4’-Difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylocytidine;

4’-Difluoromethylxylocytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylxylocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluoroxylocytidine;

4’-Difluoromethyl-5-fluoroxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluororxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethyl-5-fluoroxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethyl-5-fluoroxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethyl-5-fluororxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroxylocytidine;

4’-Difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-5-fluoroxylocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluoroxylocytidine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-fluororxylocytidine;

4’-Difluoromethyl-5-fluoroxylouridine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethyl-5-fluoroxylocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

5-Chloro-4’-difluoromethylxylocytidine;

5-Chloro-4’-difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylxylocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylxylocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-4’-difluoromethylxylocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-4’-difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro-4’-difluoromethylxylocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylocytidine;

5-Chloro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-xylocytidine;

5-Chloro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xylocytidine;

5-Chloro-4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xylocytidine;

5-Chloro-4’-difluoromethylxylocytidine-3’,5’-cyclic phosphoric acid isopropyl ester;

5-Chloro-4’-difluoromethylxylocytidine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylxyloadenosine;

4’-Difluoromethylxyloadenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl; phosphoramidate;

4’-Difluoromethylxyloadenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxyloadenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxyloadenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxyloadenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxyloadenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxyloadenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethylxyloadenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xyloadenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xyloadenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xyloadenosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xyloadenosine;

4’-Difluoromethylxyloadenosine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylxyloadenosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

4’-Difluoromethylxyloguanosine;

4’-Difluoromethylxyloguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxyloguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxyloguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxyloguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxyloguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4’-Difluoromethylxyloguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4’-Difluoromethylxyloguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

4’-Difluoromethylxyloguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xyloguanosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xyloguanosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] xyloguanosine;

4’-Difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] xyloguanosine;

4’-Difluoromethylxyloguanosine-3’,5’-cyclic phosphoric acid isopropyl ester;

4’-Difluoromethylxyloguanosine-3’,5’-cyclic thiophosphoric acid isopropyl ester;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] uridine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] uridine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluororuridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluororuridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorouridine-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluorouridine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-fluorouridine;

5-Chloro-3’-deoxy-3’,3’-difluoro-4’-difluoromethyluridine;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethyluridine-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

5-Chloro-3’-deoxy -3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] uridine;

5-Chloro-3’-deoxy -3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] uridine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-cytidine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] cytidine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] cytidine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorocytidine;

3’-Deoxy-3’.3’-difluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorocytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluororcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluororcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5-fluorocytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)- 5-fluorocytidine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethy -5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)- 5-fluorocytidine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl]-5-fluorocytidine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl]-5-fluorocytidine;

5-Chloro-3’-deoxy-3’,3’-difluoro-4’-difluoromethylcytidine;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

5-Chloro-3’-deoxy -3’,3’-difluoro-4’-difluoromethylcytidine-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

5-Chloro-3’-deoxy -3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] cytidine;

5-Chloro-3’-deoxy -3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] cytidine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyladenosine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylcytidine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyladenosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyladenosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyladenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyladenosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyladenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyladenosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-adenosine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-adenosine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] adenosine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] adenosine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine-5’-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine-5’-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine-5’-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethylguanosine-5’-{*N,N’*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-guanosine;

3’-Deoxy-3’,3’-difluoro-4’-difluoromethyl-5’-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-guanosine;

3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)phosphinyl] guanosine; and

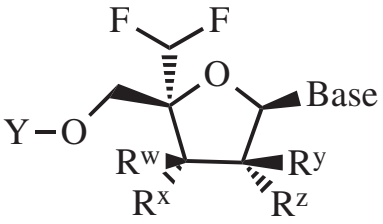
3’-Deoxy-3’,3’-difluoro -4’-difluoromethyl-5’-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] guanosine.

[0007] The application provides the compounds of Formula I which are useful for the treatment of diseases mediated by Influenza, pharmaceutical compositions comprising such compounds of Formula I, or result in the formation of such compounds of Formula I in vivo during said treatment.

[0007a] The application provides, in another aspect, a compound as defined herein for use as a therapeutically active substance.

[0007b] The application provides, in another aspect, a pharmaceutical composition comprising a compound as defined herein and a therapeutically inert carrier.

[0007c] The application provides, in another aspect, a compound according to Formula I for use in the treatment or prophylaxis of Influena infection



I

wherein:

Y is H or P(=X)(R’)(R);

R is O-R^1 or $NHR^{1'}$;

$R^{1'}$ is $-C(R^{2a})(R^{2b})C(=O)OR^3$;

R’ is $N(R^4)C(R^{2a})(R^{2b})C(=O)OR^3$, –OP(=O)(OH)OP(=O)(OH)OH, or $–OR^3$;

R^1 is H, halo-C_{1-7}-alkyl, or aryl, wherein aryl is phenyl or naphthylenyl, optionally substituted with one or more C_{1-7}-alkyl, C_{2-7}-alkenyl, C_{2-7}-alkynyl, C_{1-7}-alkoxy, halo, halo-C_{1-7}-alkyl, $-N(R^{1a})_2$, acylamino, $-SO_2N(R^{1a})_2$, $-C(=O)R^{1b}$, $-SO_2(R^{1c})$, $-NHSO_2(R^{1c})$, nitro, cyano, or $R^{1''}$;

each R^{1a} is independently H or C_{1-7}-alkyl;

each R^{1b} is independently $-OR^{1a}$ or $-N(R^{1a})_2$;

each R^{1c} is C_{1-7}-alkyl;

each R^{2a} and R^{2b} is independently H, C_{1-7}-alkyl, $-(CH_2)_rN(R^{1a})_2$, hydroxy-C_{1-7}-alkyl, $-CH_2SH$, $-(CH_2)S(O)_pMe$, $-(CH_2)_nNHC(=NH)NH_2$, (1*H*-indol-3-yl)methyl, (1*H*-indol-4-yl)methyl, $-(CH2)_mC(=O)R^{1b}$, aryl and aryl C_{1-7}-alkyl, wherein aryl is optionally substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano;

m is 0, 1, or 2;

n is 1, 2, or 3;

p is 1 or 2;

r is 1 or 2;

or R^{2a} is H and R^{2b} and R^4 together form $(CH_2)_n$;

each R^3 is independently H, C_{1-7}-alkyl, halo-C_{1-7}-alkyl, phenyl or phenyl C_{1-7}-alkyl, wherein phenyl and phenyl C_{1-7}-alkyl are optionally substituted with C_{1-7}-alkoxy;

or R^3 and $R^{1''}$ together form CH_2;

each R^4 is independently H, C_{1-7}-alkyl;

or R^{2b} and R^4 together form $(CH_2)_3$;

R^w, R^y, and R^z are each independently H, OH or F;

R^x is H, OH, or F;

or R^3 and R^x together form a bond;

or R^1 and R^x together form a bond;

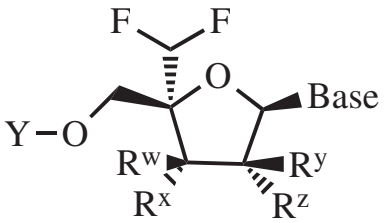
X is O or S;

Base is uracil, cytosine, guanine, adenine, thymine, or heterocycloalkyl, each of which may optionally be substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano, wherein said heterocycloalkyl is an optionally substituted saturated monocyclic, bicyclic or tricyclic heterocyclic system; and

with the proviso that if R^w is H, R^y is H, and R^z is H, then R^z is not H;

or a pharmacologically acceptable salt thereof.

[0007d] The application provides, in another aspect, a compound according to Formula I for use in the treatment or prophylaxis of Influena infection



I

wherein:

Y is H or P(=X)(R')(R);

R is O-R^1 or $NHR^{1'}$;

$R^{1'}$ is -$C(R^{2a})(R^{2b})C(=O)OR^3$;

R' is $N(R^4)C(R^{2a})(R^{2b})C(=O)OR^3$, –OP(=O)(OH)OP(=O)(OH)OH, or $–OR^3$;

R^1 is H, halo-C_{1-7}-alkyl, or aryl, wherein aryl is phenyl or naphthylenyl, optionally substituted with one or more C_{1-7}-alkyl, C_{2-7}-alkenyl, C_{2-7}-alkynyl, C_{1-7}-alkoxy, halo, halo-C_{1-7}-alkyl, -$N(R^{1a})_2$, acylamino, -$SO_2N(R^{1a})_2$, -$C(=O)R^{1b}$, -$SO_2(R^{1c})$, -$NHSO_2(R^{1c})$, nitro, cyano, or $R^{1''}$;

each R^{1a} is independently H or C_{1-7}-alkyl;

each R^{1b} is independently -OR^{1a} or -$N(R^{1a})_2$;

each R^{1c} is C_{1-7}-alkyl;

each R^{2a} and R^{2b} is independently H, C_{1-7}-alkyl, -$(CH_2)_rN(R^{1a})_2$, hydroxy-C_{1-7}-alkyl, -CH_2SH, -$(CH_2)S(O)_pMe$, -$(CH_2)_nNHC(=NH)NH_2$, (1*H*-indol-3-yl)methyl, (1*H*-indol-4-yl)methyl, -$(CH2)_mC(=O)R^{1b}$, aryl and aryl C_{1-7}-alkyl, wherein aryl is optionally substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano;

m is 0, 1, or 2;

n is 1, 2, or 3;

p is 1 or 2;

r is 1 or 2;

or R^{2a} is H and R^{2b} and R^4 together form $(CH_2)_n$;

each R^3 is independently H, C_{1-7}-alkyl, halo-C_{1-7}-alkyl, phenyl or phenyl C_{1-7}-alkyl, wherein phenyl and phenyl C_{1-7}-alkyl are optionally substituted with C_{1-7}-alkoxy;

or R^3 and $R^{1''}$ together form CH_2;

each R^4 is independently H, C_{1-7}-alkyl;

or R^{2b} and R^4 together form $(CH_2)_3$;

R^w, R^y, and R^z are each independently H, OH or F;

R^x is H, OH, or F;

or R^3 and R^x together form a bond;

or R^1 and R^x together form a bond;

X is O or S; and

Base is uracil, cytosine, guanine, adenine, thymine, or heterocycloalkyl, each of which may optionally be substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano, wherein said heterocycloalkyl is an optionally substituted saturated monocyclic, bicyclic or tricyclic heterocyclic system;

or a pharmacologically acceptable salt thereof.

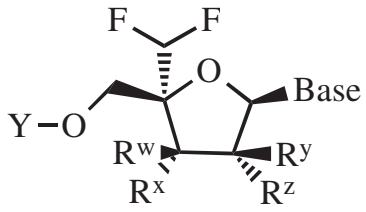
[0007e] The application provides, in another aspect, a pharmaceutical composition as defined herein for use in the treatment or prophylaxis of Influena infection.

[0008] The application provides a method for treating an Influenza infection comprising administering to a patient in need thereof a therapeutically effective amount of a compound of Formula I or a compound resulting in the formation of a compound of Formula I in vivo.

[0009] The application provides a composition comprising a compound of Formula I and a pharmaceutically acceptable excipient.

WE CLAIM:

1. A compound of Formula I



I

wherein:

Y is H or P(=X)(R')(R);

R is O-R^1 or $NHR^{1'}$;

$R^{1'}$ is $-C(R^{2a})(R^{2b})C(=O)OR^3$;

R' is $N(R^4)C(R^{2a})(R^{2b})C(=O)OR^3$, –OP(=O)(OH)OP(=O)(OH)OH, or $–OR^3$;

R^1 is H, halo-C_{1-7}-alkyl, or aryl, wherein aryl is phenyl or naphthylenyl, optionally substituted with one or more C_{1-7}-alkyl, C_{2-7}-alkenyl, C_{2-7}-alkynyl, C_{1-7}-alkoxy, halo, halo-C_{1-7}-alkyl, $-N(R^{1a})_2$, acylamino, $-SO_2N(R^{1a})_2$, $-C(=O)R^{1b}$, $-SO_2(R^{1c})$, $-NHSO_2(R^{1c})$, nitro, cyano, or $R^{1''}$;

each R^{1a} is independently H or C_{1-7}-alkyl;

each R^{1b} is independently $-OR^{1a}$ or $-N(R^{1a})_2$;

each R^{1c} is C_{1-7}-alkyl;

each R^{2a} and R^{2b} is independently H, C_{1-7}-alkyl, $-(CH_2)_rN(R^{1a})_2$, hydroxy-C_{1-7}-alkyl, $-CH_2SH$, $-(CH_2)S(O)_pMe$, $-(CH_2)_nNHC(=NH)NH_2$, (1*H*-indol-3-yl)methyl, (1*H*-indol-4-yl)methyl, $-(CH2)_mC(=O)R^{1b}$, aryl and aryl C_{1-7}-alkyl, wherein aryl is optionally substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano;

m is 0, 1, or 2;

n is 1, 2, or 3;

p is 1 or 2;

r is 1 or 2;

or R^{2a} is H and R^{2b} and R^4 together form $(CH_2)_n$;

each R^3 is independently H, C_{1-7}-alkyl, halo-C_{1-7}-alkyl, phenyl or phenyl C_{1-7}-alkyl, wherein phenyl and phenyl C_{1-7}-alkyl are optionally substituted with C_{1-7}-alkoxy;

or R^3 and $R^{1''}$ together form CH_2;

each R^4 is independently H, C_{1-7}-alkyl;

or R^{2b} and R^4 together form $(CH_2)_3$;

R^w, R^y, and R^z are each independently H, OH or F;

R^x is H, OH, or F;

or R^3 and R^x together form a bond;

or R^1 and R^x together form a bond;

X is O or S;

Base is uracil, cytosine, guanine, adenine, thymine, or heterocycloalkyl, each of which may optionally be substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano, wherein said heterocycloalkyl is an optionally substituted saturated monocyclic, bicyclic or tricyclic heterocyclic system;

with the proviso that if R^w is H, R^y is H, and R^z is H, then R^z is not H;

with the proviso that when Base is guanine or adenine, Y is not H; and

with the proviso that Formula I is not ((2R,3R,4R,5R)-5-(4-amino-2-oxopyrimidin-1(2H)-yl)-2-(difluoromethyl)-4-fluoro-3-hydroxytetrahydrofuran-2-yl)methyl tetrahydrogen triphosphate;

or a pharmacologically acceptable salt thereof.

2. The compound of claim 1, wherein R^W is H, R^y is H, R^x is OH, and R^z is OH.

3. The compound of claim 1, wherein R^W is F, R^y is H, R^x is F, and R^z is OH.

4. The compound of claim 1, wherein R^W is OH, R^y is H, R^x is H, and R^z is OH.

5. The compound of claim 1, wherein R^W is F, R^y is H, R^x is H, and R^z is OH.

6. The compound of claim 1, wherein R^W is H, R^y is H, R^x is F, and R^z is OH.

7. The compound of claim 1, wherein R^W is H, R^y is OH, R^x is OH, and R^z is H.

8. The compound of claim 1, wherein R^W is H, R^y is F, R^x is OH, and R^z is F.

9. The compound of claim 1, wherein R^W is H, R^y is F, R^x is OH, and R^z is H.

10. The compound of claim 1, wherein R^W is H, R^y is H, R^x is OH, and R^z is F.

11. The compound of claim 1, wherein R' is O-R^3, R^3 is C_{1-7}-alkyl, R is –OR^1, and R^1 and R^x together form a bond.

12. The compound of claim 1, wherein R is –OR^1, R^1 is phenyl substituted with $R^{1''}$, R' is –OR^3, and R^3 and $R^{1''}$ together form CH_2.

13. The compound of claim 1, wherein X is O.

14. The compound of claim 1, wherein X is S.

15. The compound of claim 1, wherein R is O-R^1, and R^1 is phenyl optionally substituted with methoxy.

16. The compound of claim 1, wherein R is O-R^1, and R^1 is naphthylenyl.

17. The compound of claim 1, wherein R' is $N(R^4)C(R^{2a})(R^{2b})C(=O)OR^3$, R^4 is H, R^{2a} is H, R^{2b} is methyl, and R^3 is isopropyl.

18. The compound of claim 1, wherein R' is -OP(=O)(OH)OP(=O)(OH)OH.

19. The compound of claim 1, wherein Base is cytosine optionally substituted with halo.

20. The compound of claim 1, wherein Base is uracil optionally substituted with halo.

21. The compound of claim 1, wherein Base is guanine.

22. The compound of claim 1, wherein Base is adenine.

23. A compound selected from the list consisting of:

4'-Difluoromethyluridine;

4'-Difluoromethyluridine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4'-Difluoromethyluridine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4'-Difluoromethyluridine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4'-Difluoromethyluridine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4'-Difluoromethyluridine-5'-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4'-Difluoromethyluridine-5'-(*O*-2-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

4'-Difluoromethyluridine-5'-{*N,N'*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]phosphorodiamidate};

4'-Difluoromethyluridine-5'-{*N,N'*-bis[(S)-1-(isopropoxylcarbonyl)ethyl]thiophosphorodiamidate};

4'-Difluoromethyl-5'-*O*-(2-oxido-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

4'-Difluoromethyl-5'-*O*-(2-sulfide-4-H-1,3,2-benzodioxaphosphorin-2-yl)-uridine;

4'-Difluoromethyl-5'-*O*-[bis(4-methoxyphenoxy)phosphinyl] uridine;

4'-Difluoromethyl-5'-*O*-[bis(4-methoxyphenoxy)thiophosphinyl] uridine;

4'-Difluoromethyluridine-3',5'-cyclic phosphoric acid isopropyl ester;

4'-Difluoromethyluridine-3',5'-cyclic thiophosphoric acid isopropyl ester;

4'-Difluoromethyl-5-fluorouridine;

4'-Difluoromethyl-5-fluorouridine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4'-Difluoromethyl-5-fluorouridine-5'-(*O*-phenyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

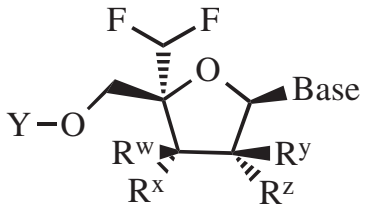
4'-Difluoromethyl-5-fluorouridine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl phosphoramidate;

4'-Difluoromethyl-5-fluorouridine-5'-(*O*-1-naphthyl-*N*-(S)-1-(isopropoxycarbonyl)ethyl thiophosphoramidate;

26. The pharmaceutical composition of claim 25, in combination with one or more antiviral compounds.

27. The pharmaceutical composition of claim 26, wherein the one or more antiviral compounds comprises one or more anti-Influenza compounds.

28. A compound according to Formula I for use in the treatment or prophylaxis of Influena infection



I

wherein:

Y is H or P(=X)(R')(R);

R is O-R^1 or $NHR^{1'}$;

$R^{1'}$ is $-C(R^{2a})(R^{2b})C(=O)OR^3$;

R' is $N(R^4)C(R^{2a})(R^{2b})C(=O)OR^3$, –OP(=O)(OH)OP(=O)(OH)OH, or $–OR^3$;

R^1 is H, halo-C_{1-7}-alkyl, or aryl, wherein aryl is phenyl or naphthylenyl, optionally substituted with one or more C_{1-7}-alkyl, C_{2-7}-alkenyl, C_{2-7}-alkynyl, C_{1-7}-alkoxy, halo, halo- $_{1-7}$-alkyl, $-N(R^{1a})_2$, acylamino, $-SO_2N(R^{1a})_2$, $-C(=O)R^{1b}$, $-SO_2(R^{1c})$, $-NHSO_2(R^{1c})$, nitro, cyano, or $R^{1''}$;

each R^{1a} is independently H or C_{1-7}-alkyl;

each R^{1b} is independently $-OR^{1a}$ or $-N(R^{1a})_2$;

each R^{1c} is C_{1-7}-alkyl;

each R^{2a} and R^{2b} is independently H, C_{1-7}-alkyl, $-(CH_2)_rN(R^{1a})_2$, hydroxy-C_{1-7}-alkyl, $-CH_2SH$, $-(CH_2)S(O)_pMe$, $-(CH_2)_nNHC(=NH)NH_2$, (1*H*-indol-3-yl)methyl, (1*H*-indol-4-yl)methyl, $-(CH2)_mC(=O)R^{1b}$, aryl and aryl C_{1-7}-alkyl, wherein aryl is optionally substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano;

m is 0, 1, or 2;

n is 1, 2, or 3;

p is 1 or 2;

r is 1 or 2;

or R^{2a} is H and R^{2b} and R^4 together form $(CH_2)_n$;

each R^3 is independently H, C_{1-7}-alkyl, halo-C_{1-7}-alkyl, phenyl or phenyl C_{1-7}-alkyl, wherein phenyl and phenyl C_{1-7}-alkyl are optionally substituted with C_{1-7}-alkoxy;

or R^3 and $R^{1''}$ together form CH_2;

each R^4 is independently H, C_{1-7}-alkyl;

or R^{2b} and R^4 together form $(CH_2)_3$;

R^w, R^y, and R^z are each independently H, OH or F;

R^x is H, OH, or F;

or R^3 and R^x together form a bond;

or R^1 and R^x together form a bond;

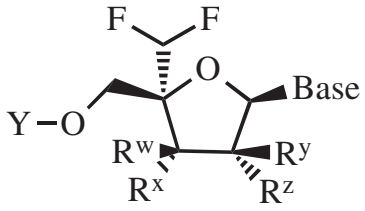
X is O or S;

Base is uracil, cytosine, guanine, adenine, thymine, or heterocycloalkyl, each of which may optionally be substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano, wherein said heterocycloalkyl is an optionally substituted saturated monocyclic, bicyclic or tricyclic heterocyclic system; and

with the proviso that if R^w is H, R^y is H, and R^z is H, then R^z is not H;

or a pharmacologically acceptable salt thereof.

29. A compound according to Formula I, for use in the treatment or prophylaxis of Influena infection



I

wherein:

Y is H or P(=X)(R')(R);

R is O-R^1 or $NHR^{1'}$;

$R^{1'}$ is -$C(R^{2a})(R^{2b})C(=O)OR^3$;

R' is $N(R^4)C(R^{2a})(R^{2b})C(=O)OR^3$, –OP(=O)(OH)OP(=O)(OH)OH, or $–OR^3$;

R^1 is H, halo-C_{1-7}-alkyl, or aryl, wherein aryl is phenyl or naphthylenyl, optionally substituted with one or more C_{1-7}-alkyl, C_{2-7}-alkenyl, C_{2-7}-alkynyl, C_{1-7}-alkoxy, halo, halo-C_{1-7}-alkyl, -$N(R^{1a})_2$, acylamino, -$SO_2N(R^{1a})_2$, -$C(=O)R^{1b}$, -$SO_2(R^{1c})$, -$NHSO_2(R^{1c})$, nitro, cyano, or $R^{1''}$;

each R^{1a} is independently H or C_{1-7}-alkyl;

each R^{1b} is independently -OR^{1a} or -$N(R^{1a})_2$;

each R^{1c} is C_{1-7}-alkyl;

each R^{2a} and R^{2b} is independently H, C_{1-7}-alkyl, -$(CH_2)_rN(R^{1a})_2$, hydroxy-C_{1-7}-alkyl, -CH_2SH, -$(CH_2)S(O)_pMe$, -$(CH_2)_nNHC(=NH)NH_2$, (1*H*-indol-3-yl)methyl, (1*H*-indol-4-yl)methyl, -$(CH2)_mC(=O)R^{1b}$, aryl and aryl C_{1-7}-alkyl, wherein aryl is optionally substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano;

m is 0, 1, or 2;

n is 1, 2, or 3;

p is 1 or 2;

r is 1 or 2;

or R^{2a} is H and R^{2b} and R^4 together form $(CH_2)_n$;

each R^3 is independently H, C_{1-7}-alkyl, halo-C_{1-7}-alkyl, phenyl or phenyl C_{1-7}-alkyl, wherein phenyl and phenyl C_{1-7}-alkyl are optionally substituted with C_{1-7}-alkoxy;

or R^3 and $R^{1''}$ together form CH_2;

each R^4 is independently H, C_{1-7}-alkyl;

or R^{2b} and R^4 together form $(CH_2)_3$;

R^w, R^y, and R^z are each independently H, OH or F;

R^x is H, OH, or F;

or R^3 and R^x together form a bond;

or R^1 and R^x together form a bond;

X is O or S; and

Base is uracil, cytosine, guanine, adenine, thymine, or heterocycloalkyl, each of which may optionally be substituted with one or more hydroxy, C_{1-7}-alkyl, C_{1-7}-alkoxy, halo, nitro or cyano, wherein said heterocycloalkyl is an optionally substituted saturated monocyclic, bicyclic or tricyclic heterocyclic system;
or a pharmacologically acceptable salt thereof.

30. A pharmaceutical composition according to any one of claims 25 to 27 for use in the treatment or prophylaxis of Influena infection.