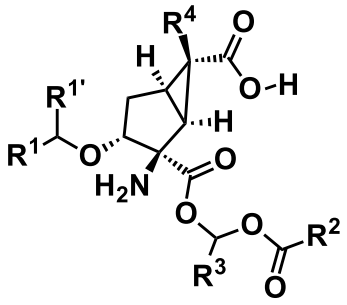
CLAIMS

1. Use of a therapeutically effective amount of a compound in the manufacture of a medicament in treating a condition in a patient in need thereof, wherein the compound is represented by formula (I-A):

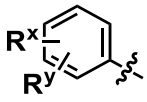


(I-A)

or a pharmaceutically acceptable salt thereof,

wherein

R^1 represents a C_{1-6} alkyl group, a heteroaryl group optionally substituted by one halogen atom, or the following formula (IIIA):



(IIIA)

where R^x represents a hydrogen atom, a halogen atom, a C_{1-6} alkyl group, or a C_{1-6} alkoxy group, wherein the C_{1-6} alkyl group and the C_{1-6} alkoxy group are each optionally substituted by one to three halogen atoms, and

R^y represents a hydrogen atom, a fluorine atom, a C_{1-6} alkyl group, or a C_{1-6} alkoxy group, wherein the C_{1-6} alkyl group and the C_{1-6} alkoxy group are each optionally substituted by one to three halogen atoms,

$R^{1'}$ represents a hydrogen atom or a C_{1-6} alkyl group,

or R^1 and $R^{1'}$ optionally form a C_{3-8} cycloalkane together with the carbon atom adjacent thereto,

R^2 represents a C_{3-6} alkyl group, a C_{3-8} cycloalkyl group optionally substituted by one to three C_{1-6} alkyl groups, a C_{3-8} cycloalkoxy group optionally substituted by one to three C_{1-6} alkyl groups and optionally having a C_{1-5} alkylene group crosslinking two different carbon atoms in the ring, an adamantyl group optionally substituted by one to three C_{1-6} alkyl groups, or a phenyl group,

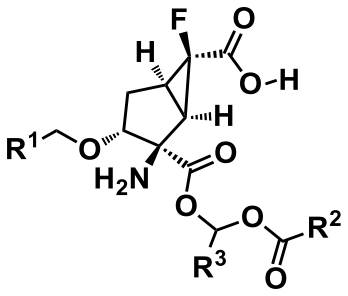
R^3 represents a hydrogen atom or a C_{1-6} alkyl group, and

R^4 represents a hydrogen atom or a fluorine atom and

wherein the condition is selected from the group consisting of mood disorders, anxiety disorder, cognitive disorders, developmental disorders, Alzheimer's disease, Parkinson's disease, sleep disorders, Huntington's chorea, eating disorders, drug dependence, epilepsy, brain infarction, cerebral ischemia, cerebral edema, head trauma, inflammation and immune-related diseases.

2. The use according to claim 1, wherein the condition is a mood disorder selected from depression and bipolar disorder.

3. The use according to claim 1, comprising administering to said patient a therapeutically effective amount of a compound represented by formula (I):



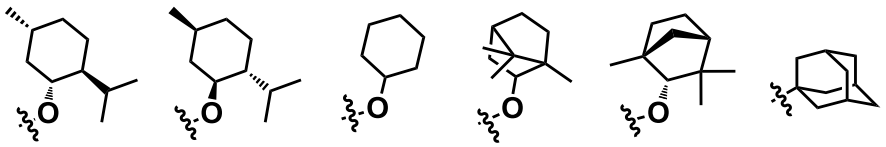
(I)

or a pharmaceutically acceptable salt thereof

wherein

R^1 represents an ethyl group, a 4-fluorophenyl group or a 3,4-difluorophenyl group,

R^2 represents any structure of the following formula group (IIIa'):



(IIIa')

and

R^3 represents a hydrogen atom or a $C_{1\text{-}6}$ alkyl group.

4. The use according to claim 3, wherein the condition is a mood disorder selected from depression and bipolar disorder.

5. The use according to claim 1, wherein the compound is any of the following compounds:

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]methoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]methoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)-3-propoxybicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({1-[({[(1S,2R,5S)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)-3-propoxybicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({1-[({[(1S,2R,4S)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-propoxy-2-({1-[({[(1S,2R,4S)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({1-[({[(1R,2S,4R)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)-3-{[4-(trifluoromethyl)phenyl]methoxy}bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(3-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(1R)-1-(4-fluoro-3-methoxyphenyl)ethoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(5-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-3-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-methylphenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-(3-methylbutoxy)-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-(cyclopentyloxy)-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(3-fluorophenyl)methoxy]-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-2-({[(2,2-dimethylpropanoyl)oxy]methoxy}carbonyl)-6-fluoro-3-[(4-fluorophenyl)methoxy]bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-2-{[(benzoyloxy)methoxy]carbonyl}-6-fluoro-3-[(4-fluorophenyl)methoxy]bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-2-({[(cyclohexanecarbonyl)oxy]methoxy}carbonyl)-6-fluoro-3-[(4-fluorophenyl)methoxy]bicyclo[3.1.0]hexane-6-carboxylic acid,

and

(1S,2R,3R,5R,6S)-2-amino-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

or a pharmaceutically acceptable salt thereof.

6. The use according to claim 1, wherein the compound is any of the following compounds:

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]methoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]methoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)-3-propoxybicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)-3-{[4-(trifluoromethyl)phenyl]methoxy}bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(3-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(1R)-1-(4-fluoro-3-methoxyphenyl)ethoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(5-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-3-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-methylphenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-(3-methylbutoxy)-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-(cyclopentyloxy)-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

and

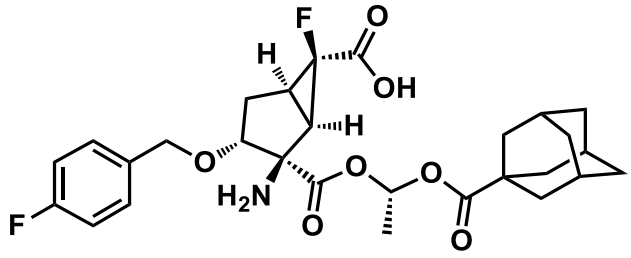
(1S,2R,3R,5R,6S)-2-amino-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

or a pharmaceutically acceptable salt thereof.

7. The use according to claim 1, wherein the compound is the following compound:

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

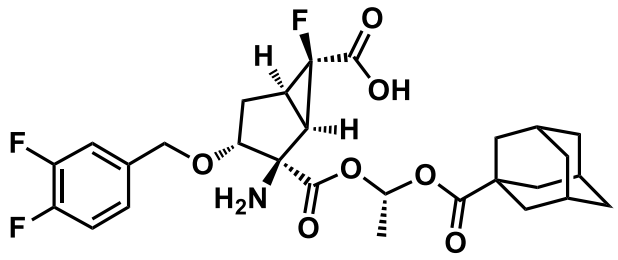
or a pharmaceutically acceptable salt thereof.



8. The use according to claim 1, wherein the compound is the following compound:

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

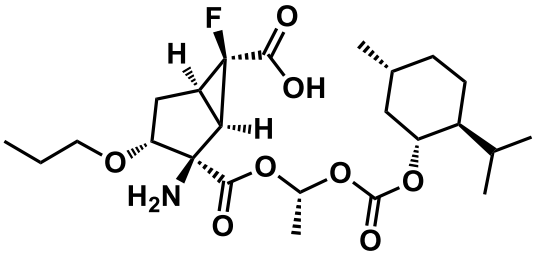
or a pharmaceutically acceptable salt thereof.



9. The use according to claim 1, wherein the compound is the following compound:

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)-3-propoxybicyclo[3.1.0]hexane-6-carboxylic acid,

or a pharmaceutically acceptable salt thereof.



10. The use according to claim 2, wherein the compound is any of the following compounds:

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]methoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]methoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)-3-propoxybicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({1-[({[(1S,2R,5S)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)-3-propoxybicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({1-[({[(1S,2R,4S)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-propoxy-2-({1-[({[(1S,2R,4S)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({1-[({[(1R,2S,4R)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)-3-{[4-(trifluoromethyl)phenyl]methoxy}bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(3-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(1R)-1-(4-fluoro-3-methoxyphenyl)ethoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(5-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-3-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-methylphenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-(3-methylbutoxy)-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-(cyclopentyloxy)-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(3-fluorophenyl)methoxy]-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-2-({[(2,2-dimethylpropanoyl)oxy]methoxy}carbonyl)-6-fluoro-3-[(4-fluorophenyl)methoxy]bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-2-{[(benzoyloxy)methoxy]carbonyl}-6-fluoro-3-[(4-fluorophenyl)methoxy]bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-2-({[(cyclohexanecarbonyl)oxy]methoxy}carbonyl)-6-fluoro-3-[(4-fluorophenyl)methoxy]bicyclo[3.1.0]hexane-6-carboxylic acid, and

(1S,2R,3R,5R,6S)-2-amino-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

or a pharmaceutically acceptable salt thereof.

11. The use according to claim 2, wherein the compound is any of the following compounds:

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]methoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]methoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)-3-propoxybicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)-3-{[4-(trifluoromethyl)phenyl]methoxy}bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(3-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(1R)-1-(4-fluoro-3-methoxyphenyl)ethoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(5-chloropyridin-2-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-[(6-chloropyridin-3-yl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-methylphenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-(3-methylbutoxy)-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

(1R,2R,3R,5R,6R)-2-amino-3-(cyclopentyloxy)-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

and

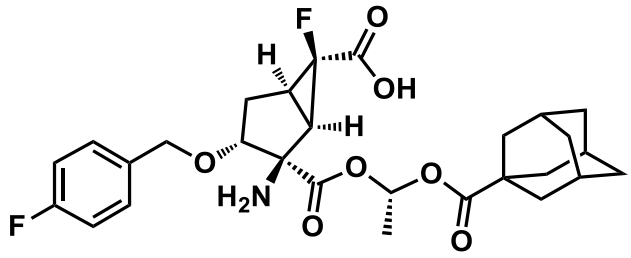
(1S,2R,3R,5R,6S)-2-amino-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

or a pharmaceutically acceptable salt thereof.

12. The use according to claim 2, wherein the compound is the following compound:

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-3-[(4-fluorophenyl)methoxy]-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

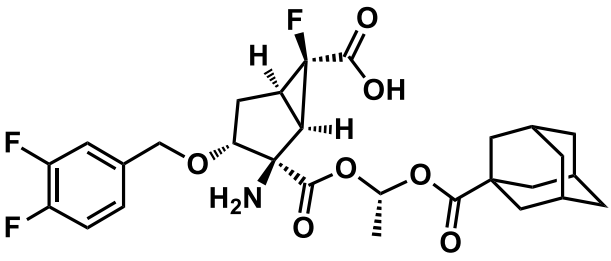
or a pharmaceutically acceptable salt thereof.



13. The use according to claim 2, wherein the compound is the following compound:

(1R,2R,3R,5R,6R)-2-amino-3-[(3,4-difluorophenyl)methoxy]-6-fluoro-2-({(1S)-1-[(tricyclo[3.3.1.1^{3,7}]decane-1-carbonyl)oxy]ethoxy}carbonyl)bicyclo[3.1.0]hexane-6-carboxylic acid,

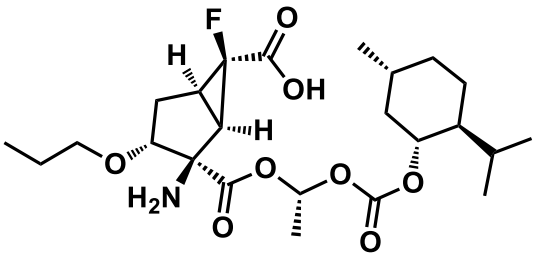
or a pharmaceutically acceptable salt thereof.



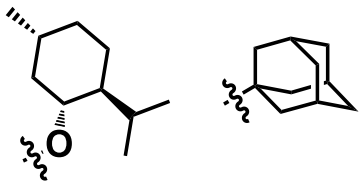
14. The use according to claim 2, wherein the compound is the following compound:

(1R,2R,3R,5R,6R)-2-amino-6-fluoro-2-({(1R)-1-[({[(1R,2S,5R)-5-methyl-2-(propan-2-yl)cyclohexyl]oxy}carbonyl)oxy]ethoxy}carbonyl)-3-propoxybicyclo[3.1.0]hexane-6-carboxylic acid,

or a pharmaceutically acceptable salt thereof.



15. The use according to claim 3, wherein R^2 represents any structure of the following formula group (IIIb):

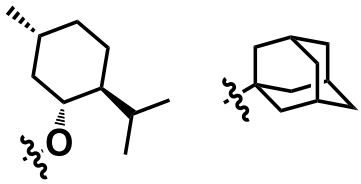


(IIIb)

or a pharmaceutically acceptable salt thereof.

16. The use according to claim 3, wherein R^3 is a methyl group, or a pharmaceutically acceptable salt thereof.

17. The use according to claim 4, wherein R^2 represents any structure of the following formula group (IIIb):



(IIIb)

or a pharmaceutically acceptable salt thereof.

18. The use according to claim 4, wherein R^3 is a methyl group, or a pharmaceutically acceptable salt thereof.