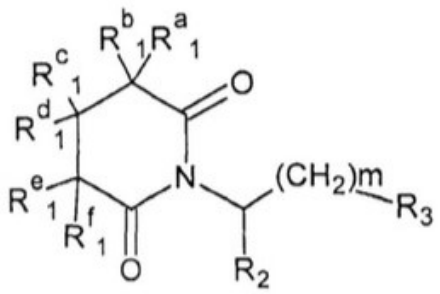
CLAIMS

1. A compound of general formula I:



wherein m is an integer from 0 to 2;

R^{a}_{1}, R^{b}_{1}, R^{c}_{1}, R^{d}_{1}, R^{e}_{1}, and R^{f}_{1}, each independently represents hydrogen, methyl; $-NH_2$, or hydroxyl;

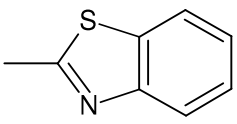
R_2 is hydrogen, methyl, $-C(O)OH$, $-C(O)OC_1$–C_2alkyl;

R_3 is:

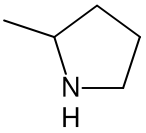
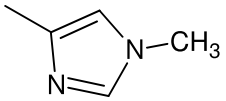
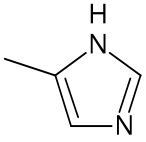
1) a 5-membered saturated or unsaturated heterocyclic group comprising from 1 to 4 heteroatoms selected from N, O and S, optionally substituted with 1 to 3 substituents selected from Cl, C_1–C_4alkyl, methoxy, $-C(O)OH$, $-NHC(O)CH_3$, phenyl, or pyridinyl, wherein said 5-membered saturated or unsaturated heterocyclic group is selected from the group consisting of imidazol-1-yl, imidazol-2-yl, imidazol-4-yl, imidazol-5-yl, isothiazol-3-yl, isothiazol-4-yl, isothiazol-5-yl, oxazol-2-yl, oxazol-4-yl, oxazol-5-yl, 1,2,5-thiadiazol-3-yl, 1,2,5-oxadiazol-3-yl, and 1,2,4-oxadiazol-5-yl;

3) a 5-membered unsaturated heterocyclic group comprising from 1 or 2 heteroatoms selected from N and S, condensed with a 6-membered unsaturated nitrogen-containing heterocyclic group; or

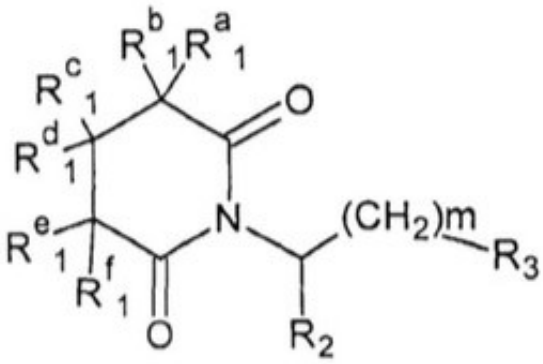
3') a group:



or a pharmaceutically acceptable salt thereof,

with the proviso that R_3 is not ,  or .

2. A compound of general formula I:



wherein m is an integer from 0 to 2;

R^a_1 and R^b_1 are hydrogen, methyl, amino, or hydroxyl;

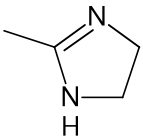
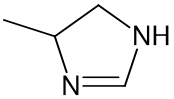
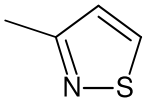
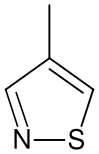
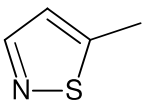
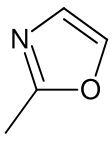
R^c_1 and R^d_1 are hydrogen, methyl, amino, or hydroxyl;

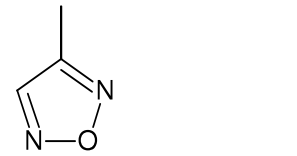
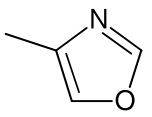
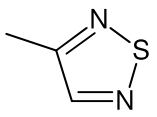
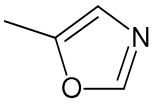
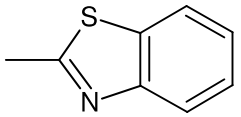
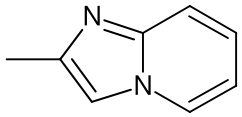
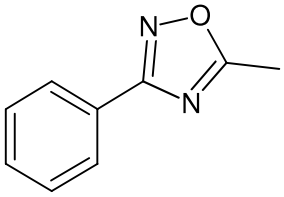
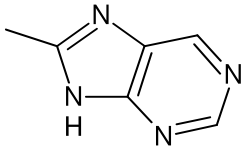
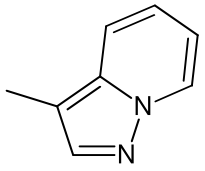
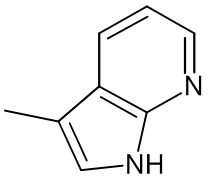
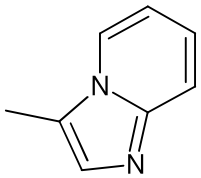
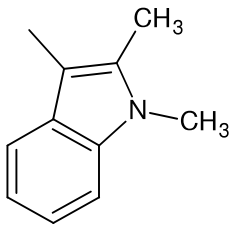
R^e_1 and R^f_1 are hydrogen or methyl;

R_2 is hydrogen, methyl, carboxyl, methoxycarbonyl, or ethoxycarbonyl;

R_3 is

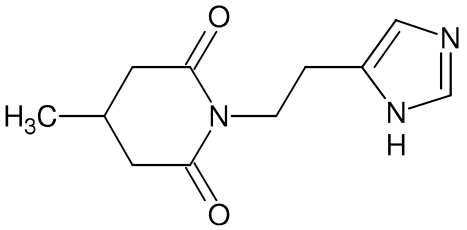
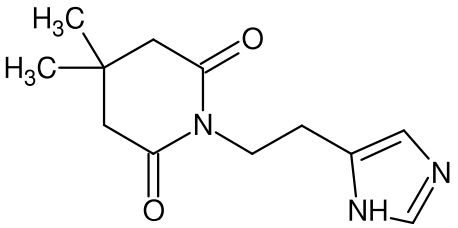
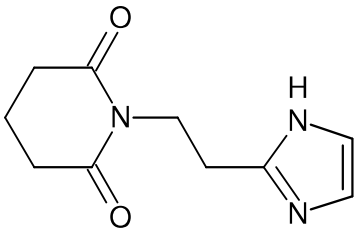
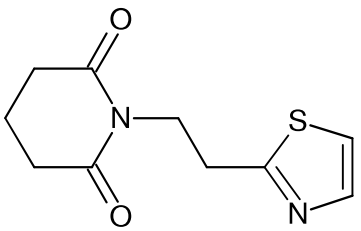
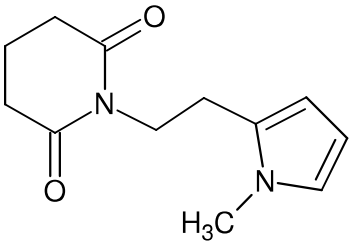
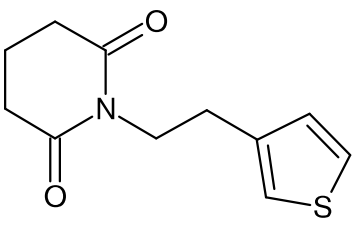
a group selected from:

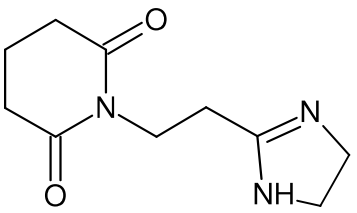







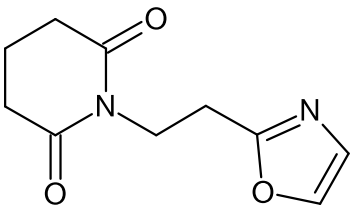













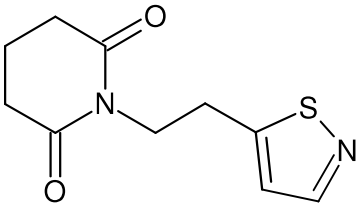
or a pharmaceutically acceptable salt thereof.

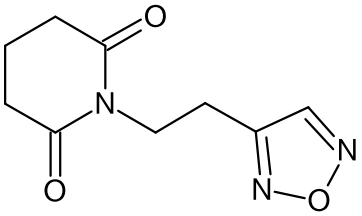
3. A compound selected from:

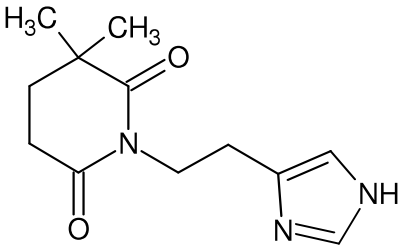







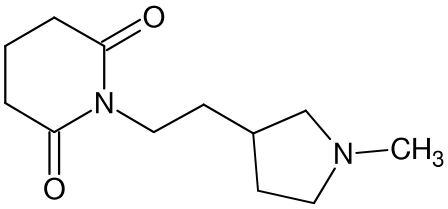


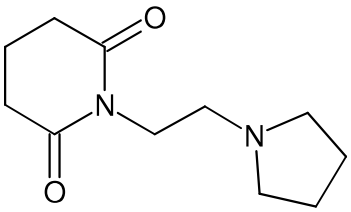


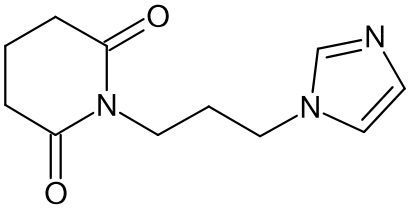


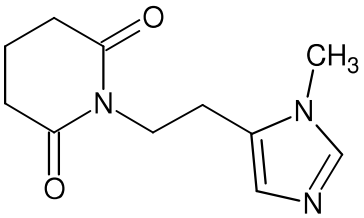


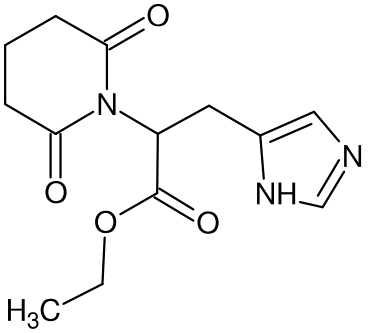


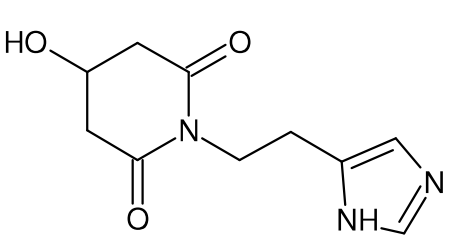


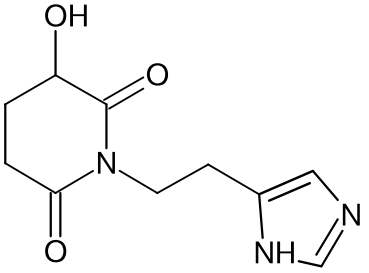


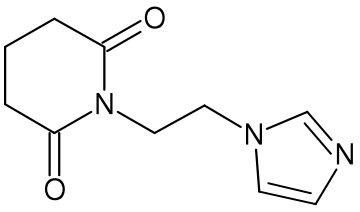


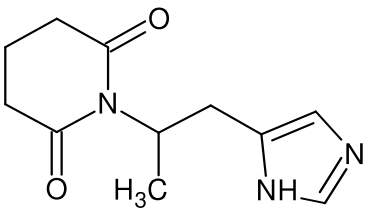


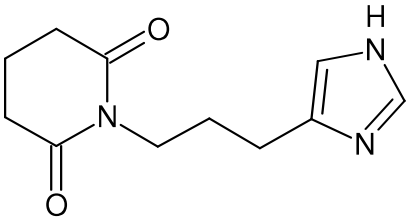


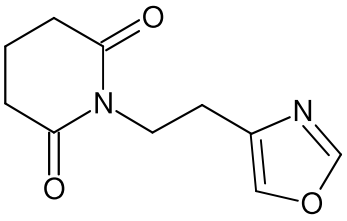


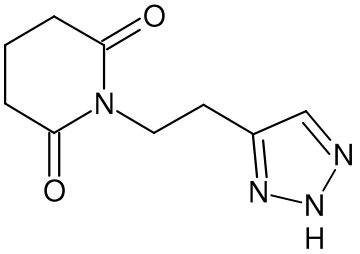


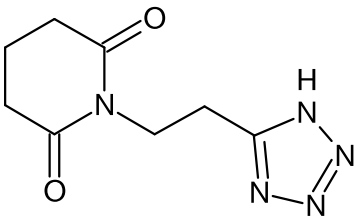


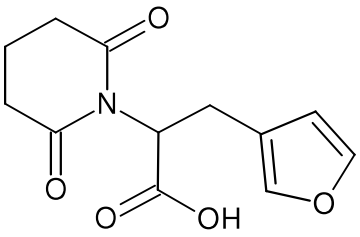


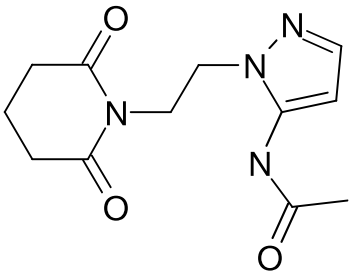


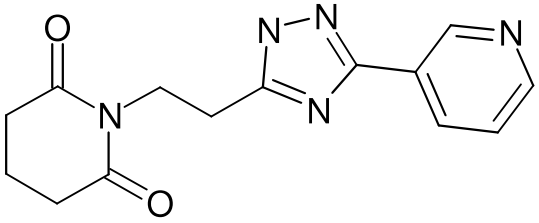


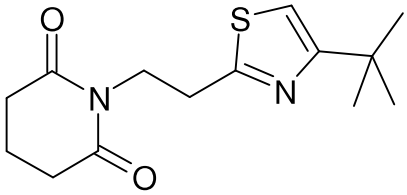


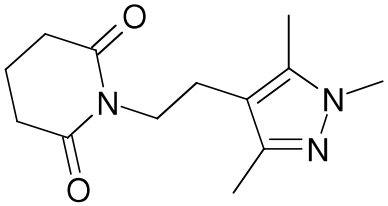


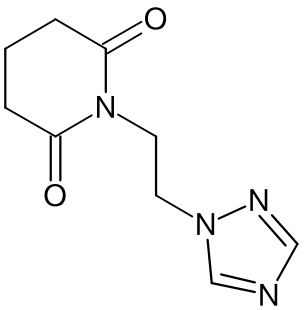


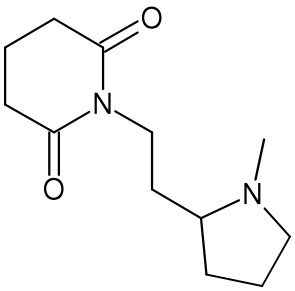


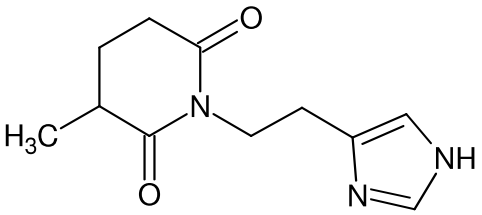


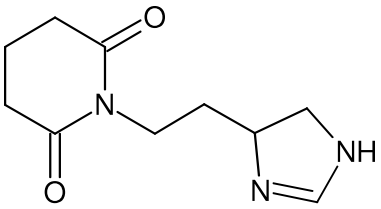


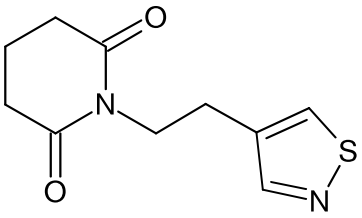


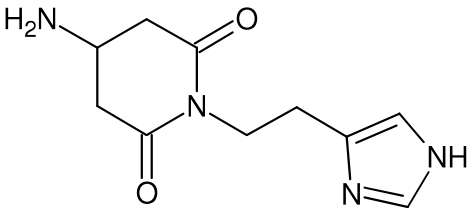


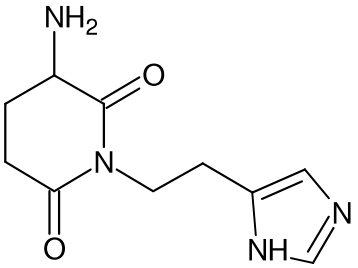


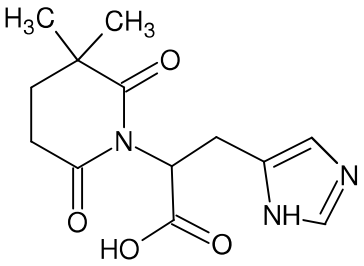


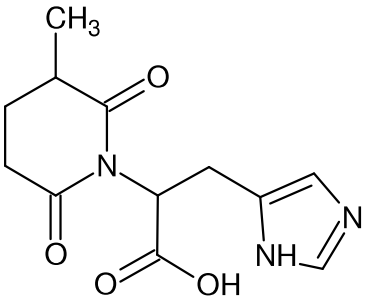


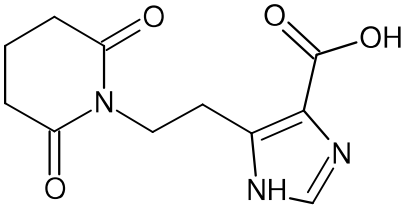


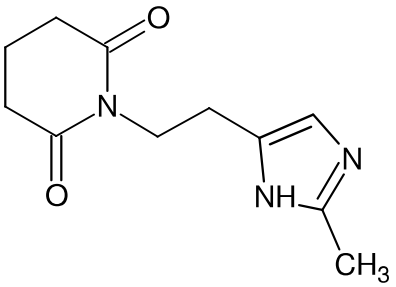


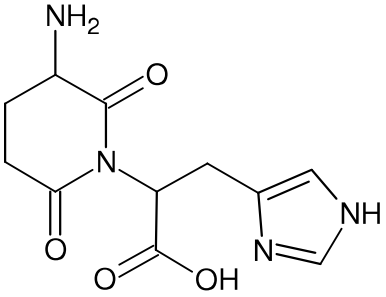


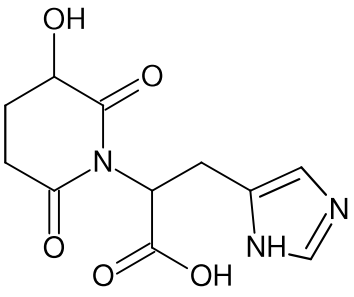


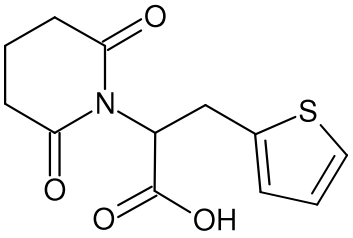


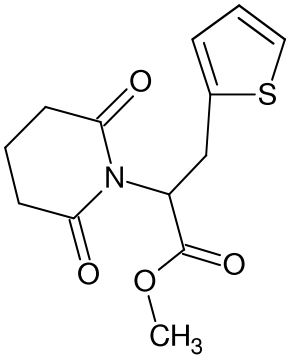


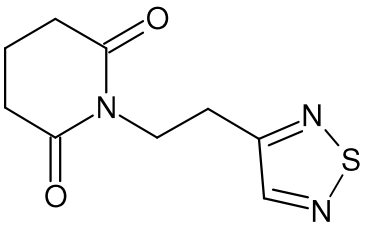


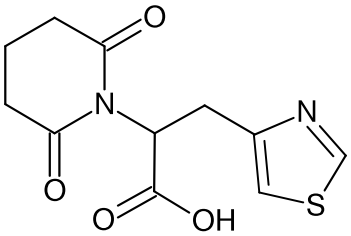


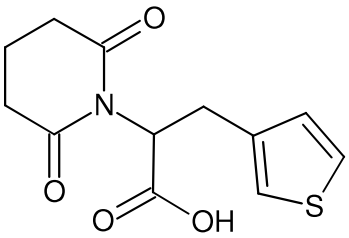


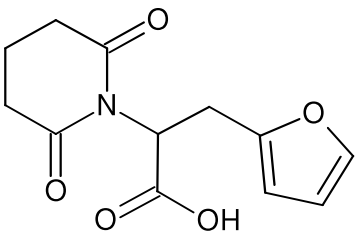


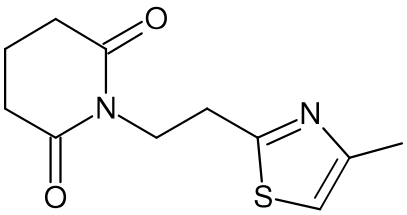


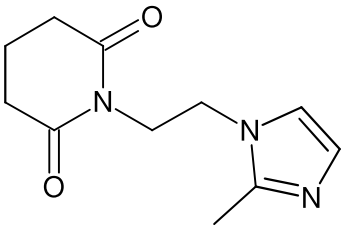


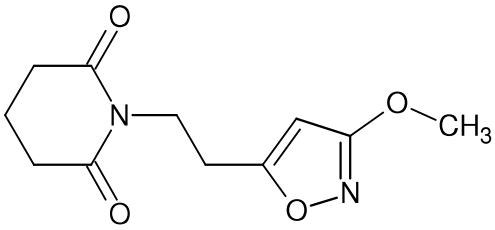


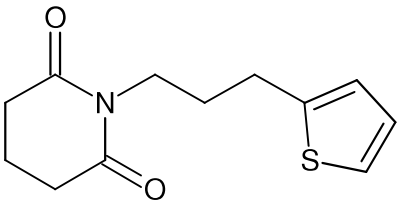


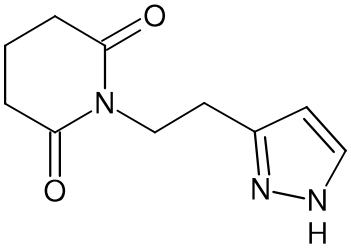


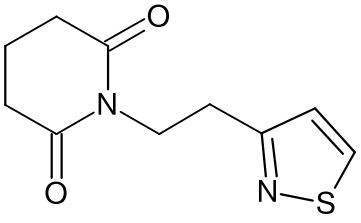


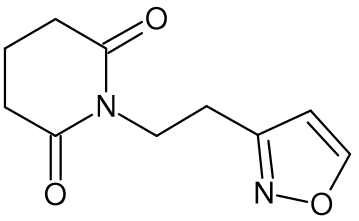


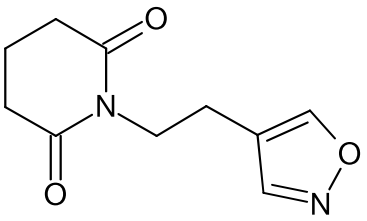


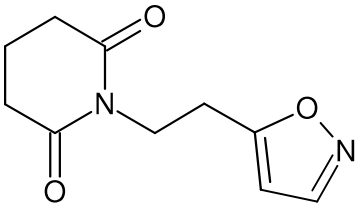


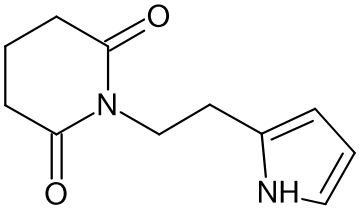


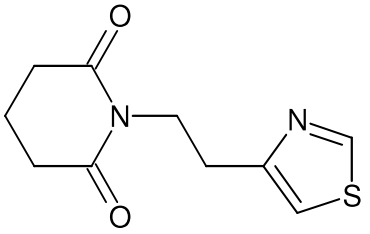


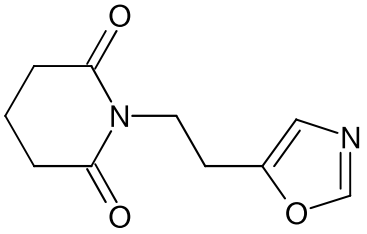


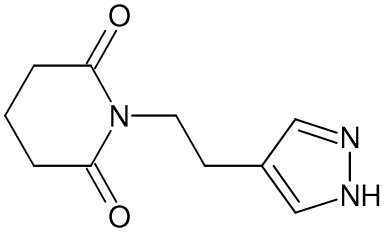


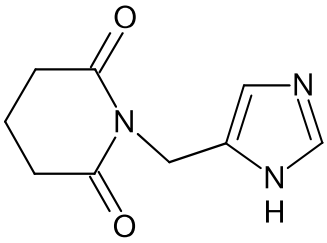


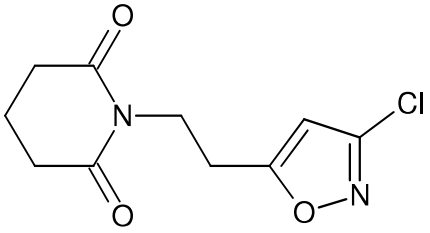


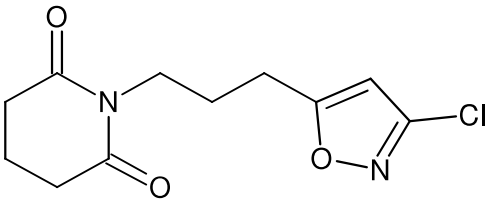


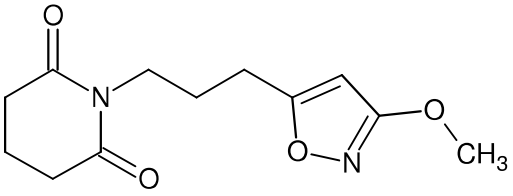


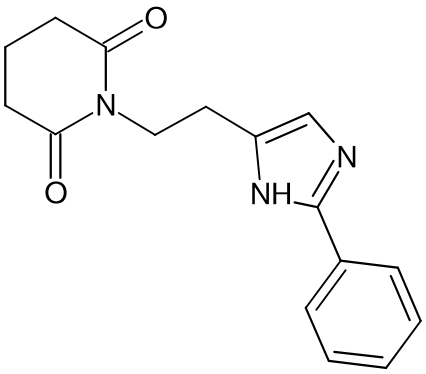


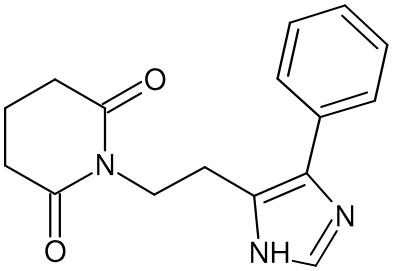


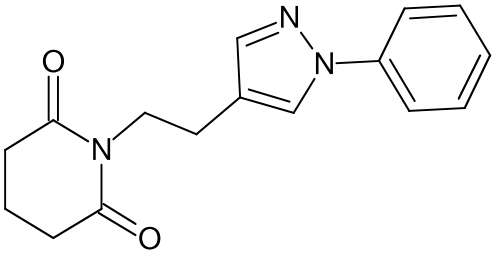


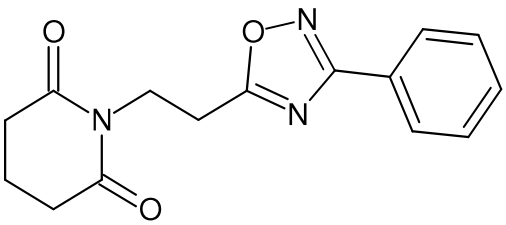


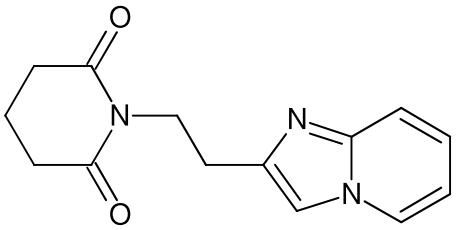


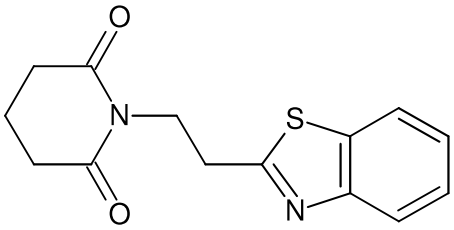


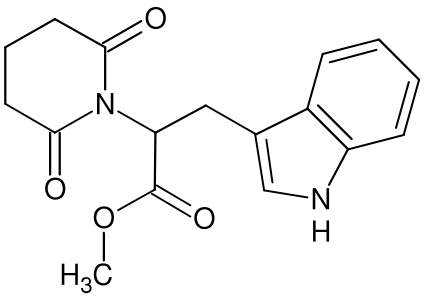


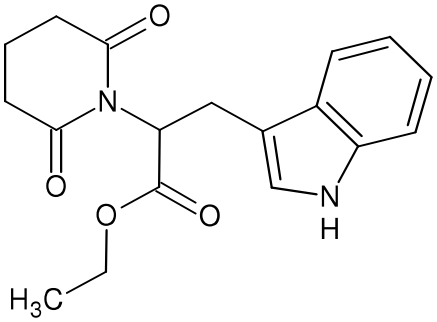


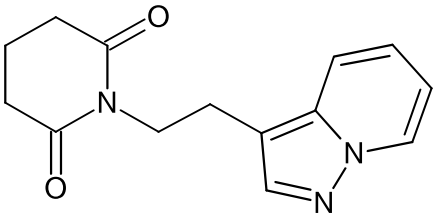


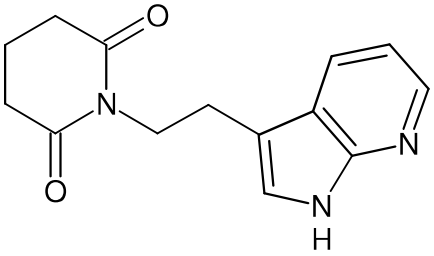


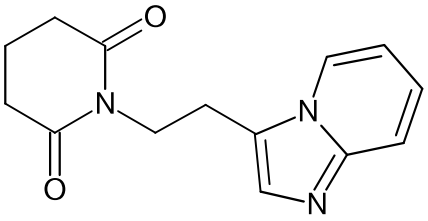


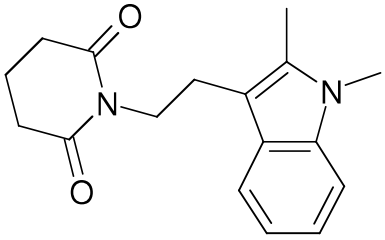


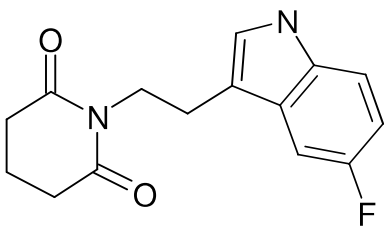


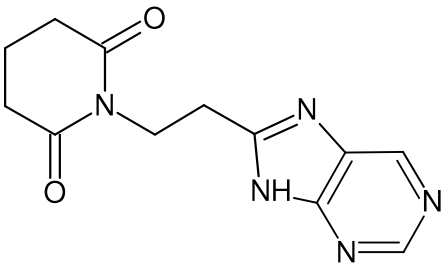


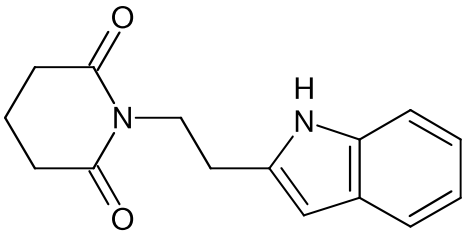












4. A medicament for use in the treatment of a respiratory tract disease, wherein the medicament comprises a compound selected from the compounds as defined in any one of claims 1 to 3.

5. The medicament for use of claim 4, wherein the respiratory tract disease is rhinosinusitis.

6. The medicament for use of claim 4, wherein the respiratory tract disease is caused by an RNA-comprising virus.

7 The medicament for use of claim 6, wherein the virus is selected from the group consisting of rhinovirus, Coxsackie virus, respiratory syncytial virus, and influenza virus.

8. The medicament for use of claim 4, wherein the disease is exacerbations of asthma, chronic obstructive pulmonary disease, bronchitis and mucoviscidosis, which are caused by rhinovirus, influenza virus and/or respiratory syncytial virus.

9. A pharmaceutical composition for use in the treatment of a respiratory tract disease, comprising an effective amount of a compound selected from the compounds as defined in any one of claims 1 to 3.

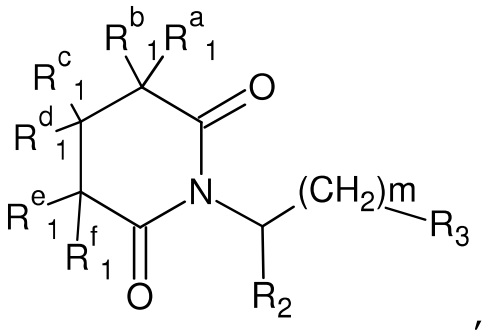
10. The pharmaceutical composition for use of claim 9, wherein the respiratory tract disease is rhinosinusitis.

11. The pharmaceutical composition for use of claim 9, wherein the respiratory tract disease is caused by an RNA-comprising virus.

12. The pharmaceutical composition for use of claim 11, wherein the virus is selected from the group consisting of rhinovirus, Coxsackie virus, respiratory syncytial virus, and influenza virus.

13. The pharmaceutical composition for use of claim 9, wherein the disease is exacerbations of asthma, chronic obstructive pulmonary disease, bronchitis and mucoviscidosis, which are caused by rhinovirus, influenza virus and/or respiratory syncytial virus.

14. Use of a compound of general formula I



,

wherein m is an integer from 0 to 2;

R^{a}_{1}, R^{b}_{1}, R^{c}_{1}, R^{d}_{1}, R^{e}_{1}, and R^{f}_{1}, each independently represents hydrogen, methyl; $-NH_2$, or hydroxyl;

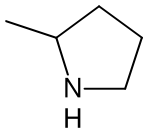
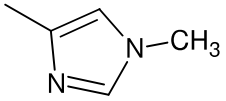
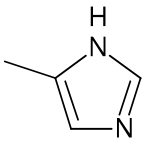
R_2 is hydrogen, methyl, $-C(O)OH$, $-C(O)OC_1-C_2$alkyl;

R_3 is:

1) a 5-membered saturated or unsaturated heterocyclic group comprising from 1 to 4 heteroatoms selected from N, O and S, optionally substituted with 1 to 3 substituents selected from Cl, C_1-C_4alkyl, methoxy, -C(O)OH, -NHC(O)CH_3, phenyl, or pyridinyl; or

3) a 5-membered unsaturated heterocyclic group comprising from 1 or 2 heteroatoms selected from N and S, condensed with a 6-membered unsaturated nitrogen-containing heterocyclic group; or

3') a group selected from the group consisting of benzothiazol-2-yl, indol-2-yl, and indol-3-yl, optionally substituted with 1 or 2 substituents selected from hydroxyl, F, or methyl,

with the proviso that R_3 is not ,  or 

or a pharmaceutically acceptable salt thereof for the manufacture of a medicament for the treatment of a respiratory tract disease.

15. Use of a compound selected from the compounds as defined in any one of claims 1 to 3 in the manufacture of a medicament for the treatment of a respiratory tract disease.

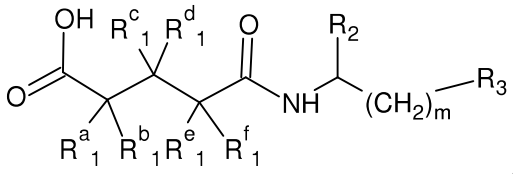
16. The use of claim 14 or 15, wherein the respiratory tract disease is rhinosinusitis.

17. The use of claim 14 or 15, wherein the respiratory tract disease is caused by an RNA-comprising virus.

18. The use of claim 17, wherein the virus is selected from the group consisting of rhinovirus, Coxsackie virus, respiratory syncytial virus, and influenza virus.

19. The use of claim 14 or 15, wherein the disease is exacerbations of asthma, chronic obstructive pulmonary disease, bronchitis and mucoviscidosis, which are caused by rhinovirus, influenza virus and/or respiratory syncytial virus.

20. A method for preparing a compound of general formula I according to claim 1 or a pharmaceutically acceptable salt thereof, comprising heating of dicarboxylic acid monoamide of general formula II



,

wherein

m represents an integer of 0 to 2;

R^a_1, R^b_1, R^c_1, R^d_1, R^e_1, and R^f_1, each independently represents hydrogen, methyl; $-NH_2$, or hydroxyl;

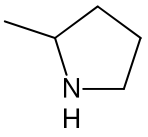
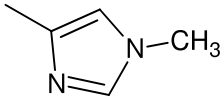
R_2 is hydrogen, methyl, $-C(O)OH$, $-C(O)OC_1$–C_2alkyl;

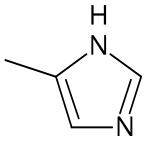
R_3 is:

1) a 5-membered saturated or unsaturated heterocyclic group comprising from 1 to 4 heteroatoms selected from N, O and S, optionally substituted with 1 to 3 substituents selected from Cl, C_1–C_4alkyl, methoxy, $-C(O)OH$, $-NHC(O)CH_3$, phenyl, or pyridinyl;

3) a 5-membered unsaturated heterocyclic group comprising from 1 or 2 heteroatoms selected from N and S, condensed with a 6-membered unsaturated nitrogen-containing heterocyclic group; or

3') a group selected from the group consisting of benzothiazol-2-yl, indol-2-yl, and indol-3-yl, optionally substituted with 1 or 2 substituents selected from hydroxyl, F, or methyl,

with the proviso that R_3 is not  , 

or  ;

with a dehydrating agent in an organic solvent.

21. The method of claim 20, wherein the dehydrating agent is glutaric anhydride, and the method is performed under heating in an organic solvent.

22. The method of claim 20, wherein the dehydrating agent is propionic anhydride, and the method is performed under heating in an organic solvent.

23. The method of claim 22, wherein the method is performed with addition of sodium acetate.

24. The method of claim 20, wherein the dehydrating agent is acetic anhydride, and the method is performed under heating in an organic solvent.

25. The method of claim 24, wherein the method is performed with addition of sodium acetate.

26. The method of claim 20, wherein the dehydrating agent is acetic acid chloride, and the method is performed under heating in an organic solvent.

27. The method of claim 20, wherein the dehydrating agent and the solvent are acetic acid anhydride, and the method is performed at 90–100°C.

28. The method of claim 20, wherein the dehydrating agent is carbonyldiimidazole.