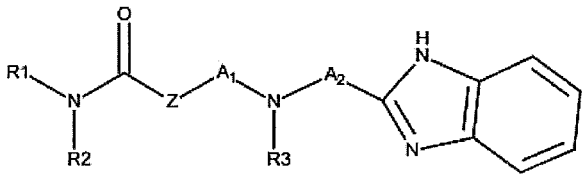
hepcidin, diseases related to or caused by increased iron levels or iron overload and diseases associated with ineffective erythropoiesis.

**SUMMARY**

In one aspect of the invention, there is provided the use of compounds according to formula (IVd)



(IVd)

;

or pharmaceutically acceptable salts thereof, in the manufacture of a medicament for prophylaxis and/or treatment of iron metabolism disorders leading to increased iron levels, increased iron absorption, and/or iron overload,

wherein the compounds act as ferroportin inhibitors;

$R^1$ and $R^2$ are the same or different and are independently selected from the group consisting of
- hydrogen,
- optionally substituted alkyl,
- optionally substituted aryl,
- optionally substituted heteroaryl, or
- $R^1$ and $R^2$ together with the nitrogen atom to which they are bonded form an optionally substituted 3- to 6-membered ring, which may optionally contain further heteroatoms, or
- one of $R^1$ and $R^2$ is an alkanoyl-group, which together with Z being an amino group (-NH-) forms a 5- or 6-membered heterocyclic diketone containing two nitrogen atoms;

Z is a cyclic group or a linear group and is selected from
- optionally substituted 5-or 6-membered heteroaryl
- optionally substituted aryl,
- optionally substituted 5- or 6-membered heterocyclyl,
- amino (-NH-),
- an alkylaminocarbonyl group [-($CH_2$)-NH-(C=O)-], or
- an alkylcarbonylamino group [-($CH_2$)-(C=O)-NH-];

$A^1$ is optionally substituted alkanediyl;

$A^2$ is
- optionally substituted alkanediyl,
- a direct bond, or
- a sulfonyl group;

$R^3$ is
- hydrogen, or
- optionally substituted alkyl; or

$A^1$ and $R^3$ together with the nitrogen atom to which they are bonded form an optionally substituted 4- to 6-membered mono- or bicyclic ring; or

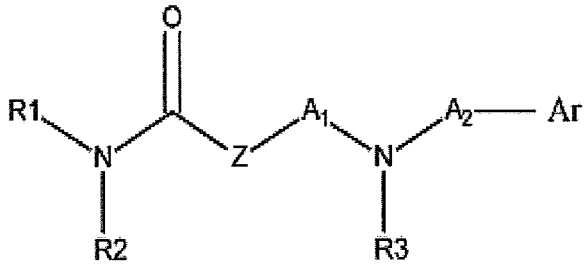
$R^3$ and $A^2$ together with the nitrogen atom to which they are bonded form an optionally substituted 4- to 7-membered ring; and

wherein the bicyclic heteroaryl ring may carry 1 to 3 substituents, preferably 1 or 2 substituents; and wherein the bicyclic heteroaryl ring may be fused with a ring formed by $R^3$ and $A^2$ together with the nitrogen atom to which they are bonded.

**DESCRIPTION OF THE INVENTION**

The inventors have surprisingly found that specific compounds having the general structural formula (I) as defined herein, act as ferroportin inhibitors, thus effectively inhibiting iron transport and accordingly being particularly suitable for the use as medicaments, in particular for the use in the treatment and/or prophylaxis of diseases caused by a lack of hepcidin, diseases associated with ineffective erythropoiesis or iron metabolism disorders leading to increased iron levels, such as particularly iron overload states such as in particular thalassemia and hemochromatosis. Very particularly the new compounds turned out to be suitable for treating thalassemia and hemochromatosis. The new compounds are also suitable for the treatment of diseases caused by pathologically low hepcidin-levels and for the use in the inhibition of iron transport.

Accordingly, the invention relates to compounds of general formula (I)




(I)

or pharmaceutically acceptable salts thereof, for the use as ferroportin inhibitors, wherein

$R^1$ and $R^2$ are the same or different and are independently selected from the group consisting of
- hydrogen,
- optionally substituted alkyl,
- optionally substituted aryl,
- optionally substituted heteroaryl,
- optionally substituted heterocyclyl, or
- $R^1$ and $R^2$ together with the nitrogen atom to which they are bonded form an optionally substituted 3- to 6-membered ring, which may optionally contain further heteroatoms, or
- one of $R^1$ and $R^2$ is an alkanoyl-group, which together with Z being an amino group (-NH-) forms a 5- or 6-membered heterocyclic diketone containing two nitrogen atoms;

Z is a cyclic group or a linear group and is selected from
- optionally substituted 5-or 6-membered heteroaryl
- optionally substituted aryl,
- optionally substituted 5- or 6-membered heterocyclyl,
- amino (-NH-),
- an alkylaminocarbonyl group [$-(CH_2)_n$-NH-(C=O)-], preferably with n = 1, or
- an alkylcarbonylamino group [$-(CH_2)_n$-(C=O)-NH-], preferably with n = 1;

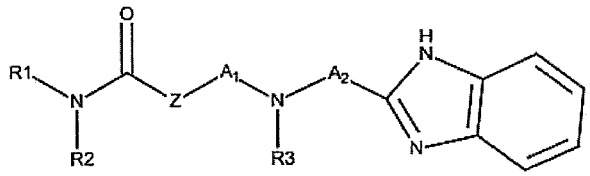
$A^1$ is optionally substituted alkanediyl;

$A^2$ is

- optionally substituted alkanediyl,
- a direct bond, or

**CLAIMS:**

1. Use of compounds according to formula (IVd)




(IVd)

;

or pharmaceutically acceptable salts thereof,

, in the manufacture of a medicament for prophylaxis and/or treatment of iron metabolism disorders leading to increased iron levels, increased iron absorption, and/or iron overload, wherein

the compounds act as ferroportin inhibitors;

$R^1$ and $R^2$ are the same or different and are independently selected from the group consisting of
- hydrogen,
- optionally substituted alkyl,
- optionally substituted aryl,
- optionally substituted heteroaryl, or
- $R^1$ and $R^2$ together with the nitrogen atom to which they are bonded form an optionally substituted 3- to 6-membered ring, which may optionally contain further heteroatoms, or
- one of $R^1$ and $R^2$ is an alkanoyl-group, which together with Z being an amino group (-NH-) forms a 5- or 6-membered heterocyclic diketone containing two nitrogen atoms;

Z is a cyclic group or a linear group and is selected from
- optionally substituted 5-or 6-membered heteroaryl
- optionally substituted aryl,
- optionally substituted 5- or 6-membered heterocyclyl,
- amino (-NH-),
- an alkylaminocarbonyl group [-($CH_2$)-NH-(C=O)-], or
- an alkylcarbonylamino group [-($CH_2$)-(C=O)-NH-];

$A^1$ is optionally substituted alkanediyl;

$A^2$ is
- optionally substituted alkanediyl,
- a direct bond, or
- a sulfonyl group;

$R^3$ is
- hydrogen, or

- optionally substituted alkyl; or

$A^1$ and $R^3$ together with the nitrogen atom to which they are bonded form an optionally substituted 4- to 6-membered mono- or bicyclic ring; or

$R^3$ and $A^2$ together with the nitrogen atom to which they are bonded form an optionally substituted 4- to 7-membered ring; and

wherein the bicyclic heteroaryl ring may carry 1 to 3 substituents, preferably 1 or 2 substituents; and wherein the bicyclic heteroaryl ring may be fused with a ring formed by $R^3$ and $A^2$ together with the nitrogen atom to which they are bonded.

2. The use according to claim 1, wherein

$R^1$ and $R^2$ are the same or different and are independently selected from the group consisting of
- hydrogen,
- optionally substituted alkyl, or
- $R^1$ and $R^2$ together with the nitrogen atom to which they are bonded form an optionally substituted 3- to 6-membered ring, which may optionally contain further heteroatoms;

Z is a cyclic group or a linear group and is selected from
- optionally substituted 5-or 6-membered heteroaryl
- optionally substituted aryl,
- optionally substituted 5- or 6-membered heterocyclyl,
- amino (-NH-),
- an alkylaminocarbonyl group [-($CH_2$)-NH-(C=O)-], or
- an alkylcarbonylamino group [-($CH_2$)-(C=O)-NH-];

$A^1$ is optionally substituted alkanediyl;

$A^2$ is
- optionally substituted alkanediyl, or
- a direct bond;

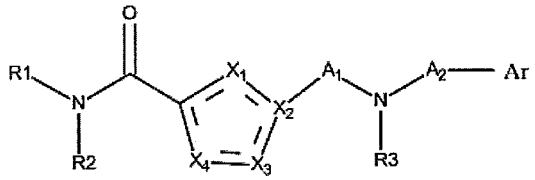
$R^3$ is
- hydrogen, or
- $C_1$-$C_3$-alkyl; or

$A^1$ and $R^3$ together with the nitrogen atom to which they are bonded form an optionally substituted 4-membered monocyclic ring; or

$R^3$ and $A^2$ together with the nitrogen atom to which they are bonded form an optionally substituted 4- to 7-membered aliphatic ring.

3. The use according to any one of the preceding claims, wherein
Z is selected from
- an optionally substituted 5-or 6-membered heteroaryl,
- an optionally substituted aryl, and
- an optionally substituted 5- or 6-membered heterocyclyl.

4. The use according to any one of the preceding claims, wherein
Z is selected from an optionally substituted 5-membered heteroaryl, forming a compound of the formula (IIa)

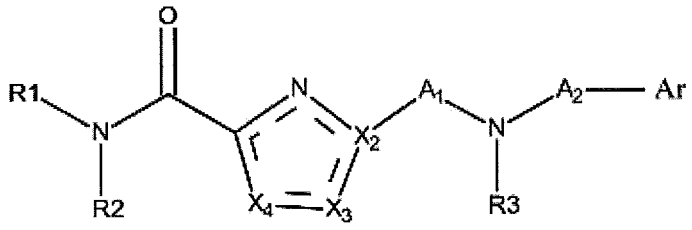



(IIa)

wherein 1 to 3 heteroatoms X are present,
wherein $X^1$ to $X^4$ may be the same or different and are independently selected from the group consisting of C, N, S and O,
preferably in formula (IIa) 1 to 3 heteroatoms X are present, wherein
$X^1$ is C, N, S or O;
$X^2$ is C or N;
$X^3$ is C, N, S or O; and
$X^4$ is C, N, S or O,
and wherein $X^1$, $X^3$ and $X^4$ with the meaning of C or N may carry a further substituent;

and wherein $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims;

or a compound of the formula (IIa-a)




(IIa-a)

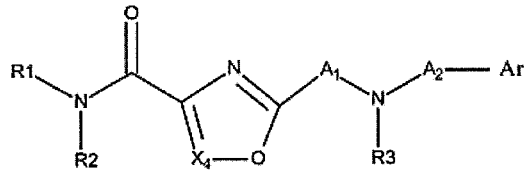
wherein one or two further heteroatoms X ($X^2$, $X^3$, $X^4$) are present, and wherein
$X^2$ is C or N;
$X^3$ is C, N, S or O; and
$X^4$ is C or N;

with the proviso that in case of two further heteroatoms both are selected to be N or one is N and one (except $X^2$) is O; and

wherein $X^3$ and $X^4$ with the meaning of C or N may carry a further substituent;

and wherein $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims;

or compounds defined by formula (IIa-d)

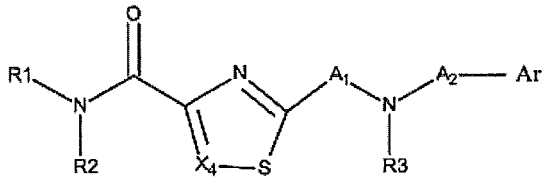


(IIa-d)

with $X^4$ being C, which may carry a further substituent; and

wherein $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims;

or defined by formula (IIa-c)

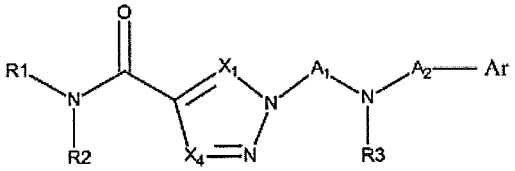


(IIa-c)

with $X^4$ being C, which may carry a further substituent, and

wherein $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims;

or defined by formula (IIa-b)

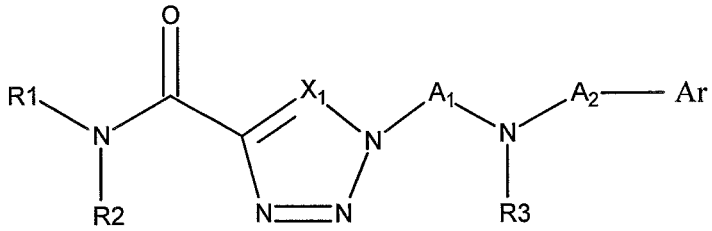


(IIa-b)

with $X^1$ and $X^4$ being C and wherein $X^1$ and/or $X^4$ may carry a further substituent; and

wherein $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims;

or defined by formula (IIa-e)



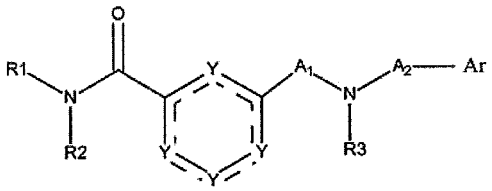
(IIa-e)

with $X^1$ being C, which may carry a further substituent; and

wherein $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims.

5. The use according to any one of the preceding claims, wherein

Z is selected from an optionally substituted 6-membered heteroaryl, forming a compound of the formula (IIb)



(IIb)

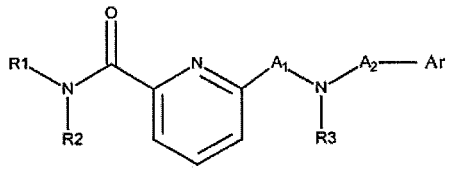
wherein Y is N or C, with at least one Y being N, preferably with one Y being N;

and wherein any Y with the meaning of C may carry a further substituent;

and wherein $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims;

or compounds defined by

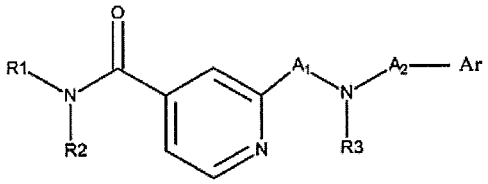
- formula (IIb-a)



(IIb-a)

,

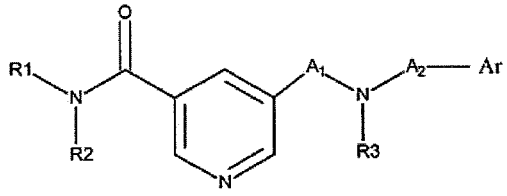
- formula (Ib-b)



(IIb-b)

,

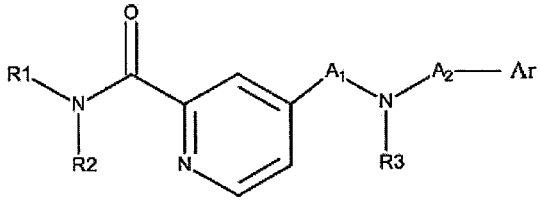
- formula (Ib-c)



(IIb-c)

, or

- formula (Ib-d)



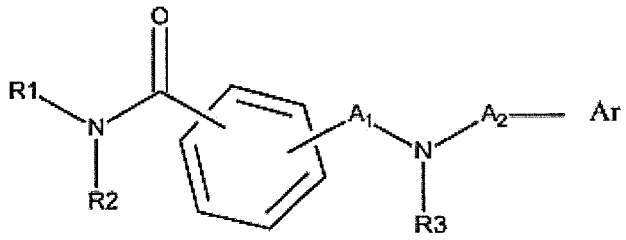
(IIb-d)

,

wherein in in each case $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims, and wherein in each case the pyridinyl-ring may optionally carry one or more further substituents.

6. The use according to any one of the preceding claims, wherein

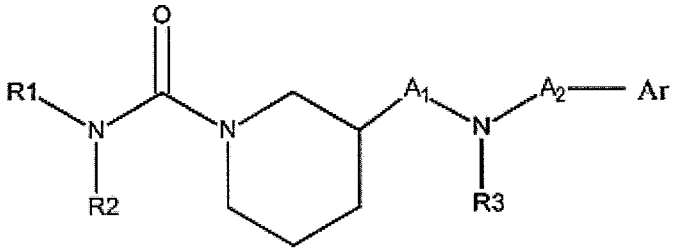
Z is selected from an optionally substituted 6-membered aryl, forming a compound of the formula (IIc)



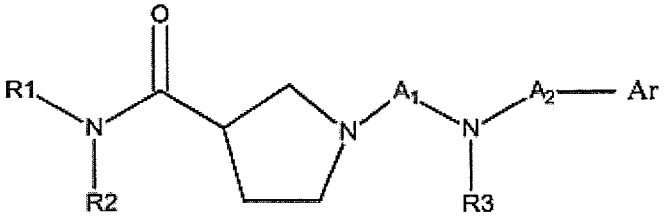

(IIc)

wherein $R^1$, $R^2$, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims and wherein the phenyl-ring may be substituted with 1 to 3 substituents or

Z is a nitrogen containing 5- or 6-membered heterocyclyl forming compounds according to formula (IId-a) or (IId-b)




(IId-a)




(IId-b)

wherein the heterocyclyl-ring may be substituted with 1 to 3 substituents.

7. The use according to any one of the preceding claims, wherein

at least one of $R^1$ and $R^2$ is a linear or branched alkyl group $-[CQ]_n-$ with Q = H or $C_1$-$C_4$-alkyl and n = 1, 2 or 3, which is substituted with a cyclic group "Cycl", designated as $R^{2*}$, wherein

Cycl is selected from

- optionally substituted aryl, and
- optionally substituted heteroaryl,

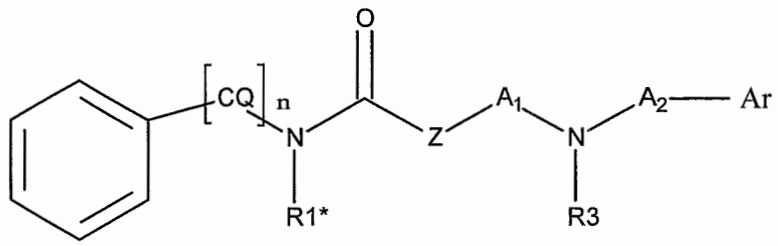
and wherein n is an integer of 1 to 3;

the remaining of $R^1$ or $R^2$, designated as $R^{1*}$, is selected from

- hydrogen, and
- optionally substituted alkyl; and

Z, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims,

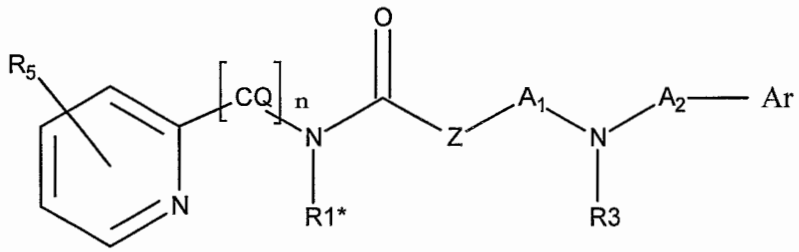
forming compounds of formula (A-IIIa)




(A-IIIa)

wherein Q, n, $R^{1*}$, Z, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in any one of the preceding claims;

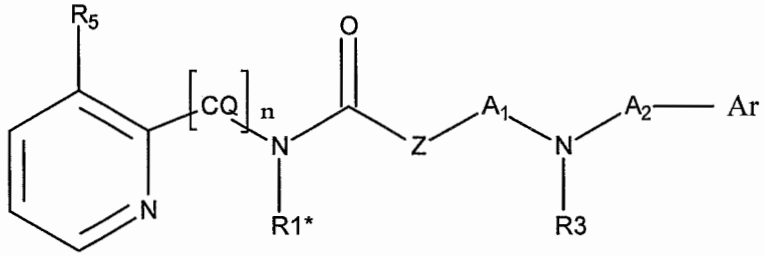
or compounds defined by formula (A-IIIb-f)




(A-IIIb-f)

wherein $R^5$ indicates 1 to 3, preferably 1 or 2 optional substituents, which may be selected from $C_1$-$C_3$-alkyl and halogen, preferably fluorine;

or compounds defined by formula (A-IIIb-g)




(A-IIIb-g)

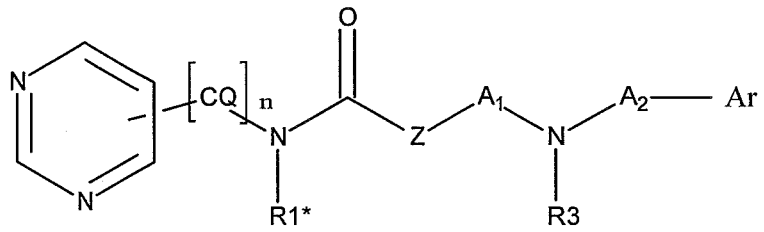
wherein $R^5$ is preferably selected from $C_1$-$C_3$-alkyl and halogen, preferably fluorine;
and wherein n is an integer of 1 to 3;
the remaining of $R^1$ or $R^2$, designated as $R^{1*}$, is selected from

- hydrogen, and
- optionally substituted alkyl; and

Q, Z, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims

or compounds defined by

- formula (A-IIIb-c)

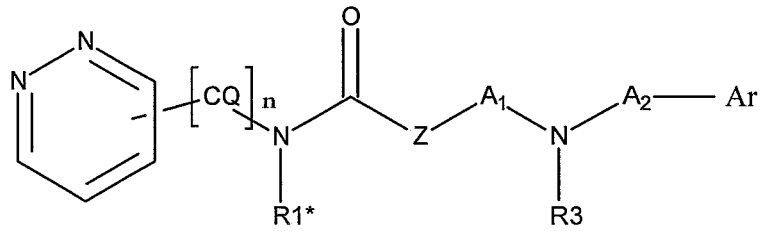


(A-IIIb-c)

, or

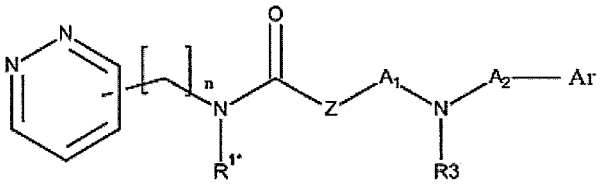
- formula (A-IIIb-d)

,



(A-IIIb-d)

, or



(IIIb-d)

;

wherein the pyrimidinyl and pyridazinyl ring each may carry 1 to 3, preferably 1 or 2 further substituents, and wherein in each case n is an integer of 1 to 3;

the remaining of $R^1$ or $R^2$, designated as $R^{1*}$, is selected from

- hydrogen, and
- optionally substituted alkyl; and

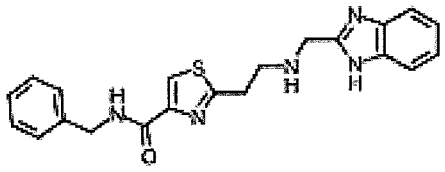
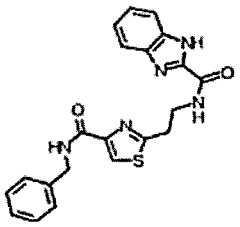
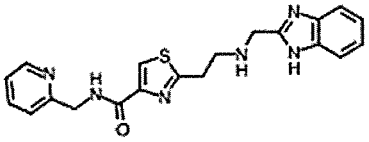
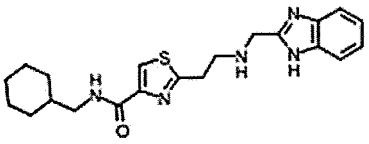
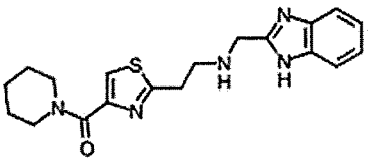
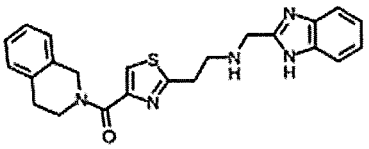
Q, Z, $R^3$, $A^1$, $A^2$ and Ar have the meaning as defined in the preceding claims.

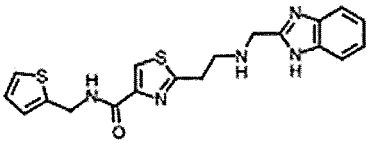
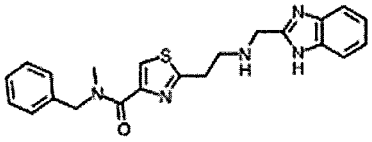
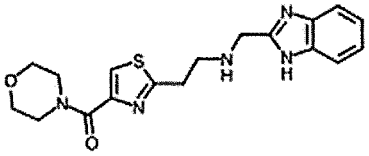
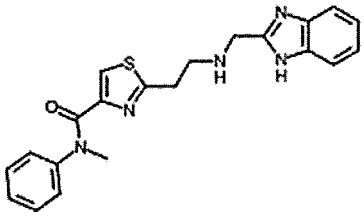
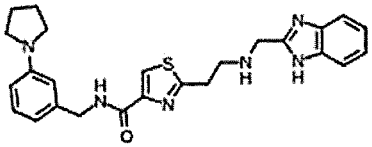
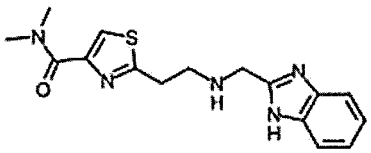
8. The use according to any one of the preceding claims, wherein

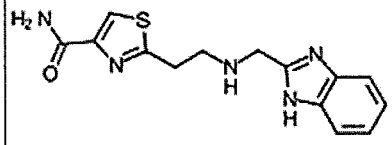
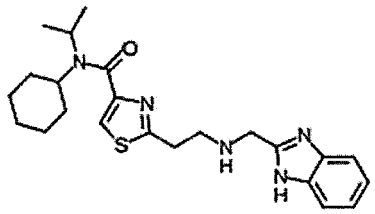
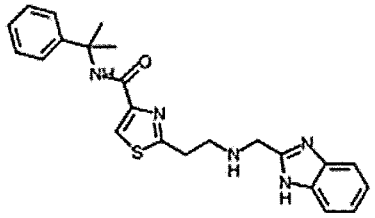
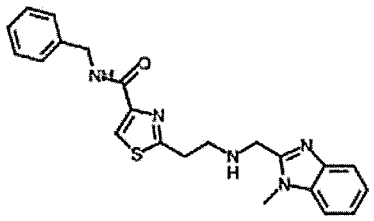
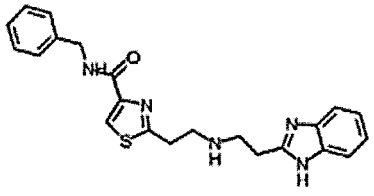
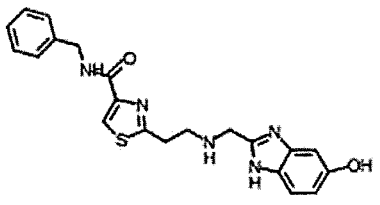
$A^1$ and $A^2$ are optionally substituted alkanediyl and are the same or different and are independently selected from optionally substituted

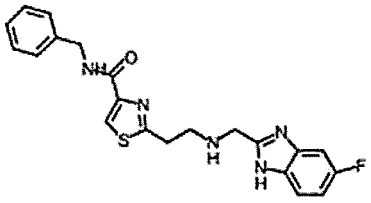
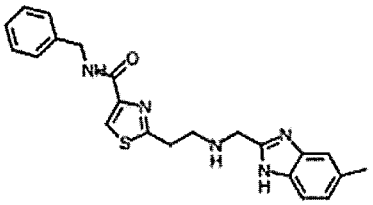
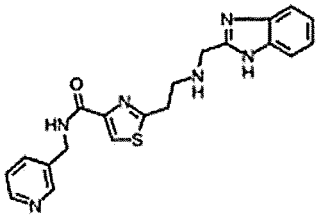
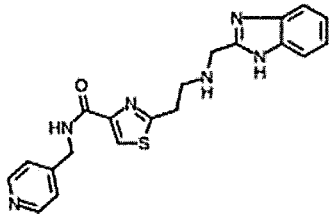
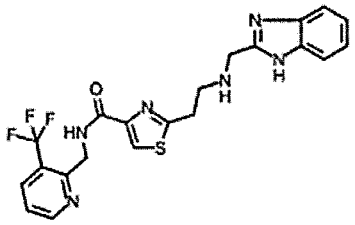
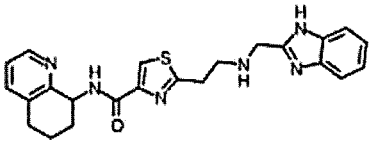
- methylene and
- ethane-1,2-diyl, or wherein
- $A^1$ and $R^3$ together with the nitrogen atom to which they are bonded form an optionally substituted 4- membered aliphatic monocyclic ring.

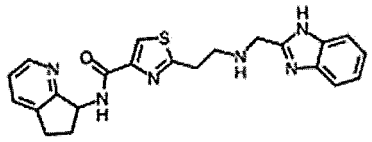
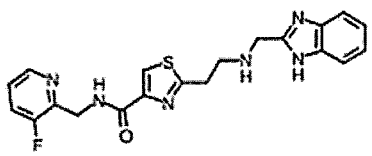
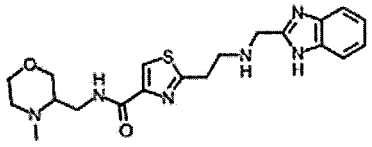
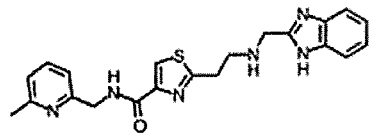
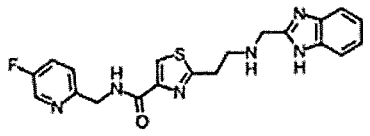
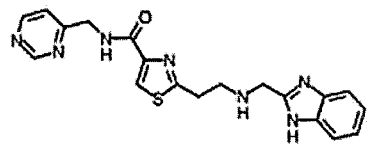
9. The use according to any one of the preceding claims, wherein the compounds are selected from

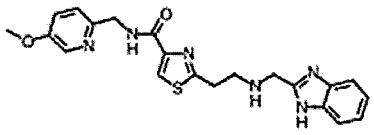
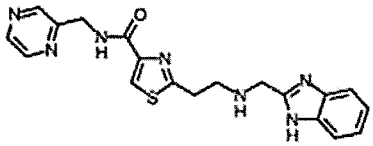
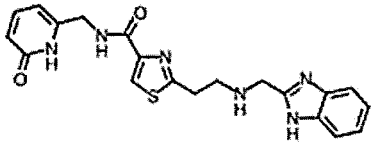
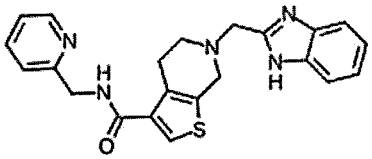
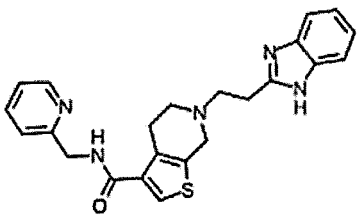
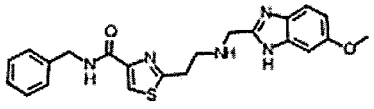
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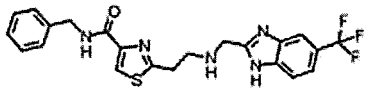
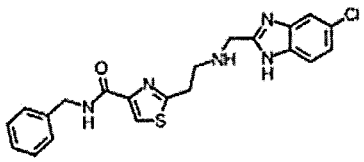
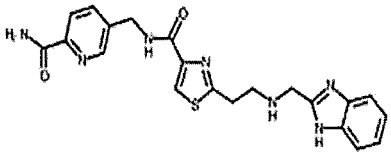
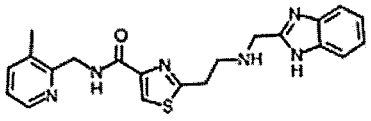
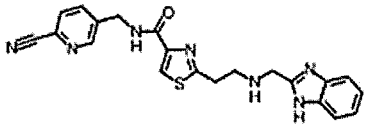
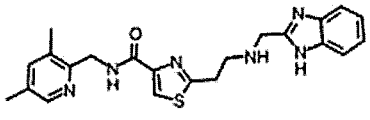
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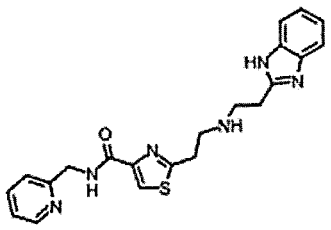
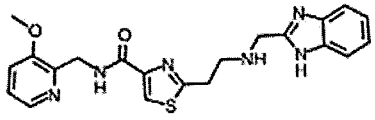
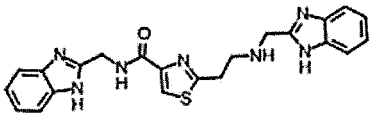
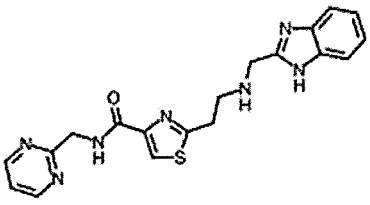
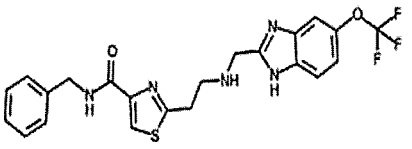
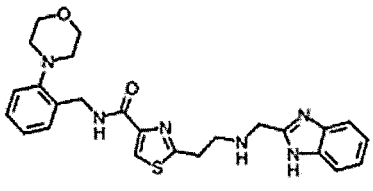
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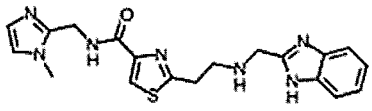
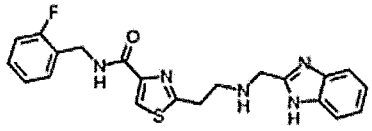
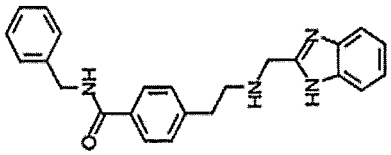
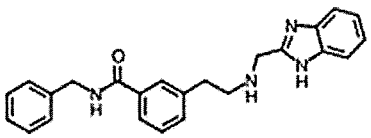
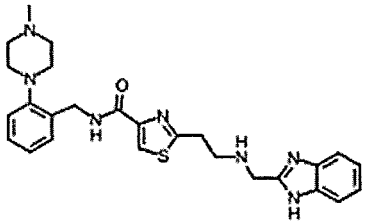
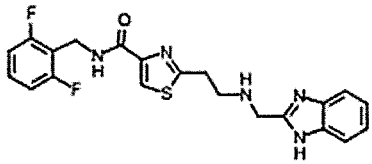
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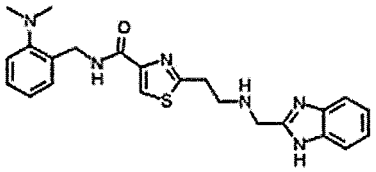
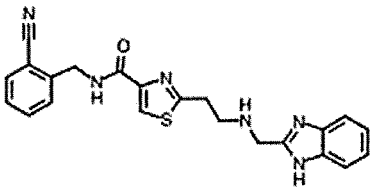
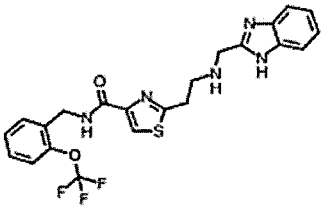
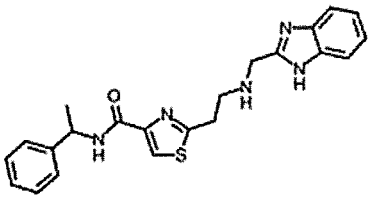
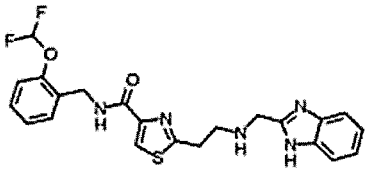
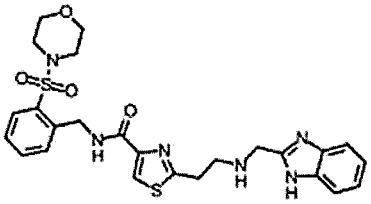
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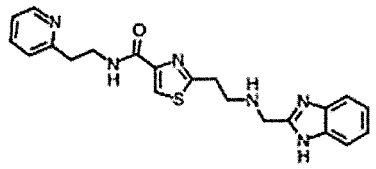
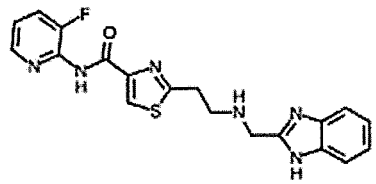
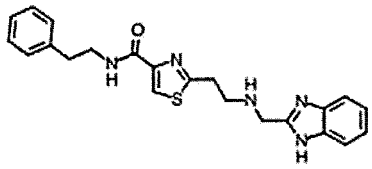
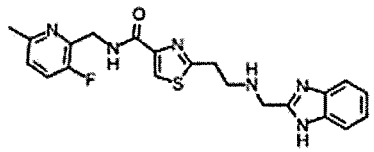
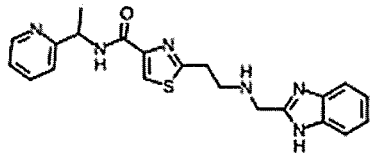
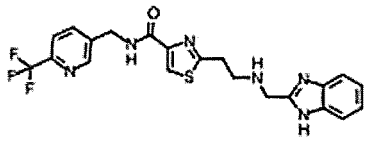
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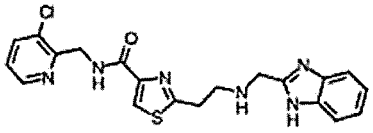
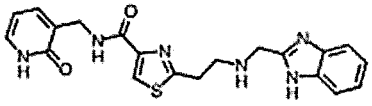
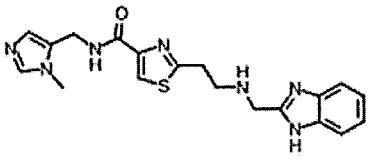
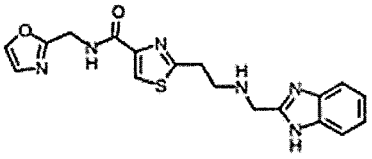
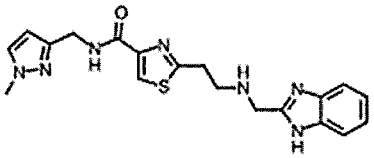
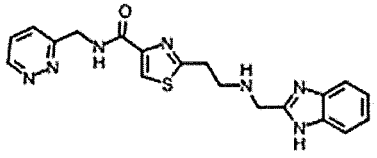
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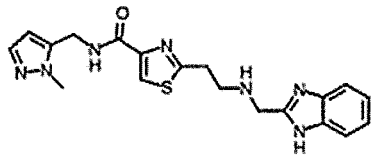
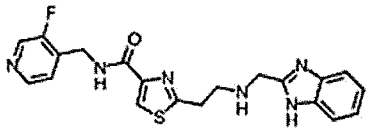
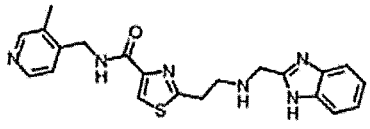
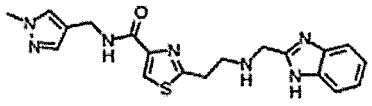
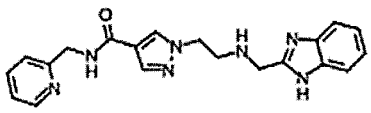
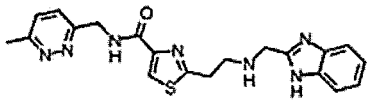
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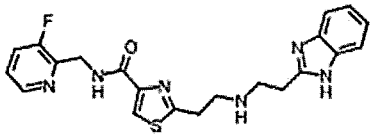
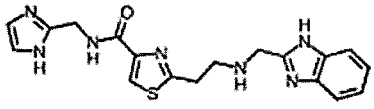
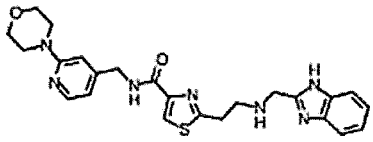
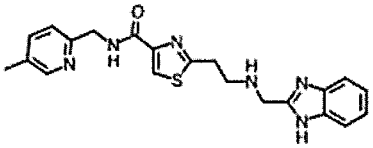
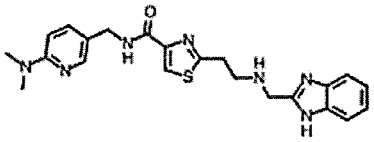
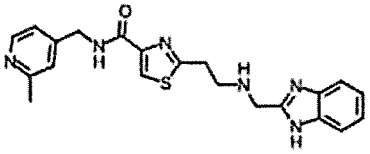
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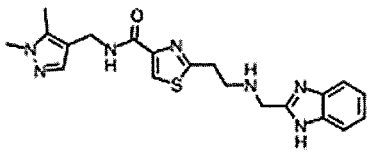
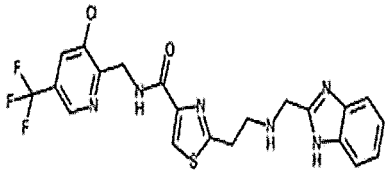
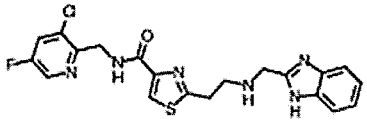
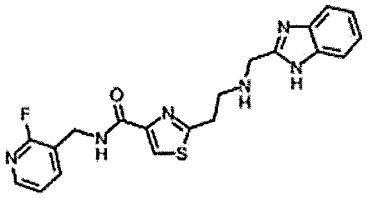
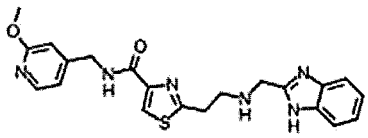
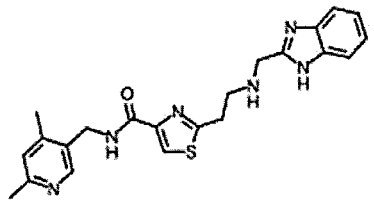
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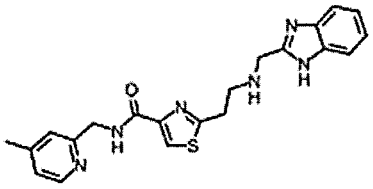
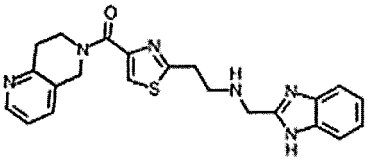
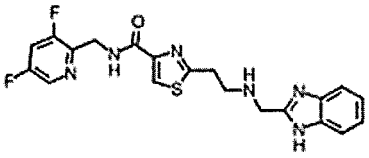
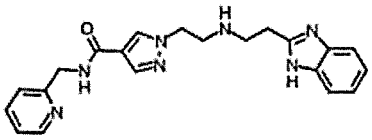
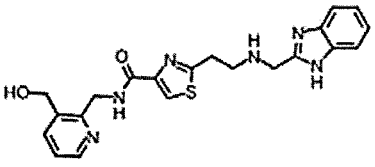
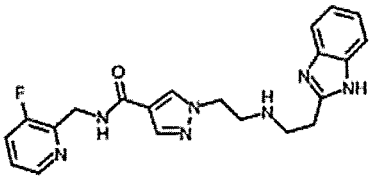
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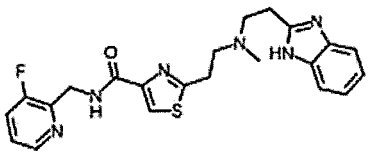
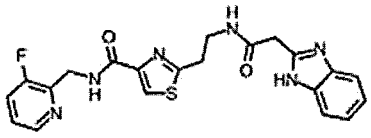
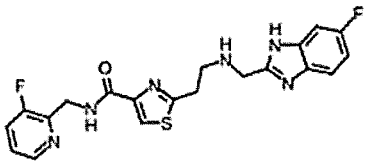
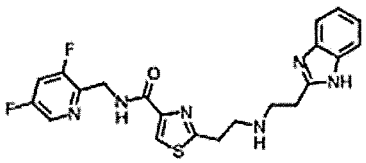
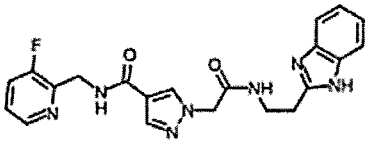
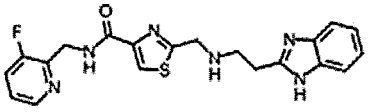
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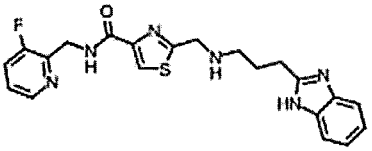
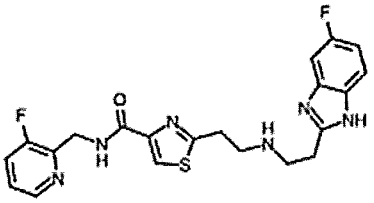
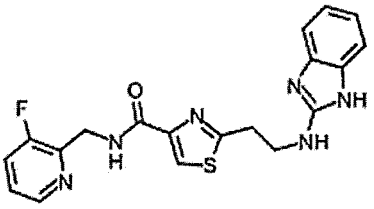
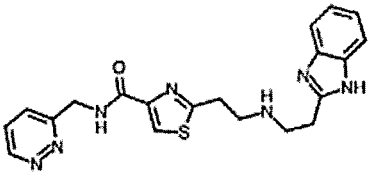
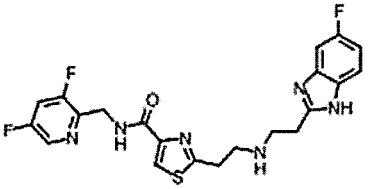
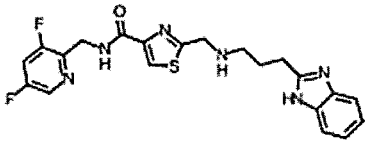
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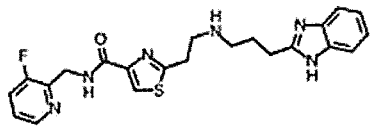
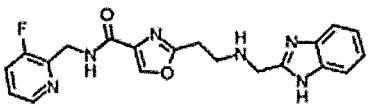
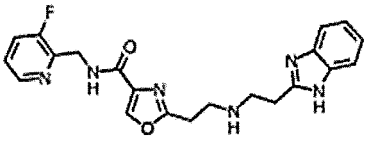
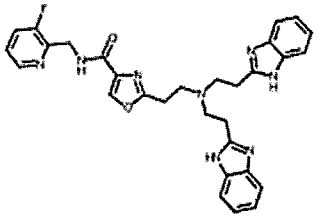
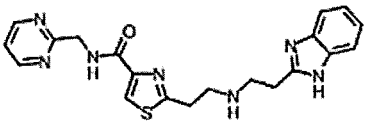
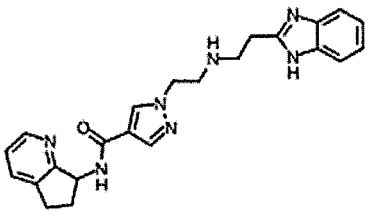
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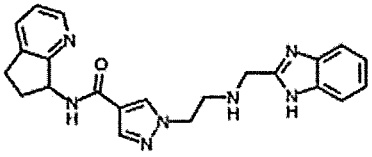
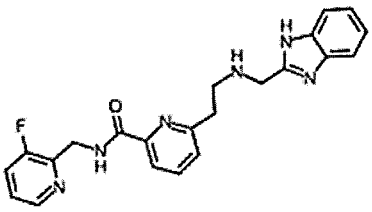
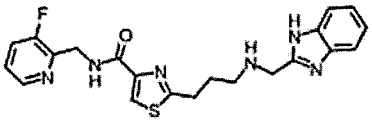
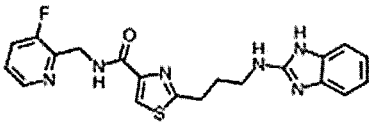
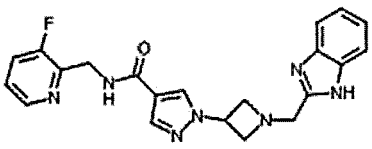
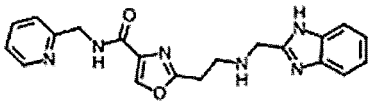
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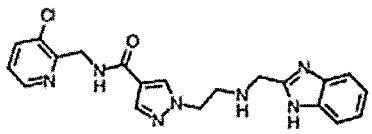
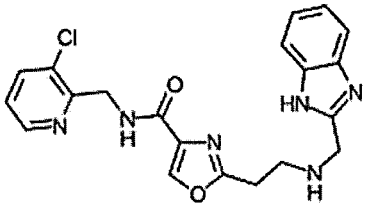
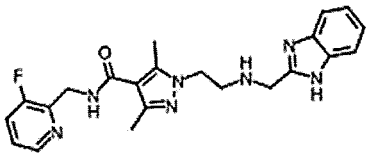
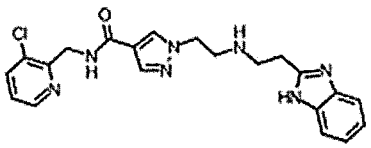
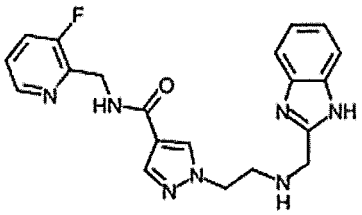
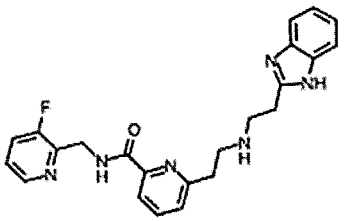
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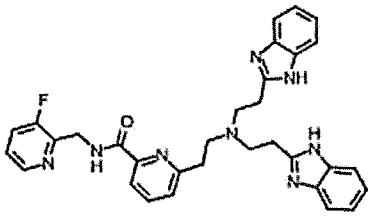
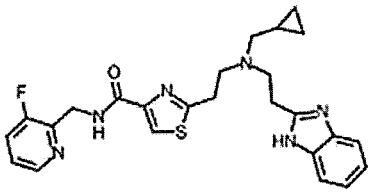
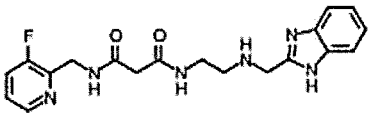
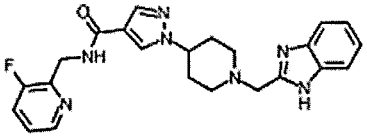
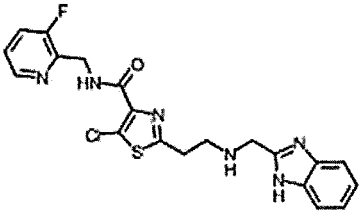
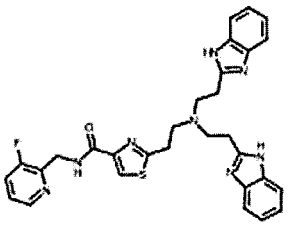
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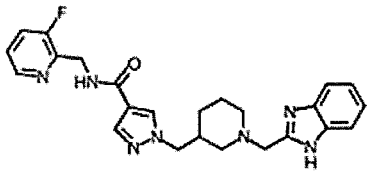
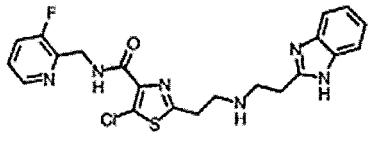
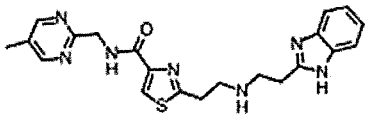
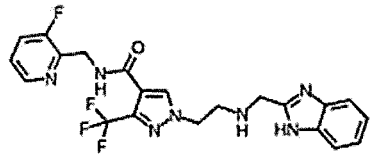
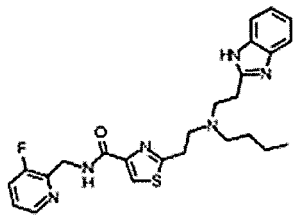
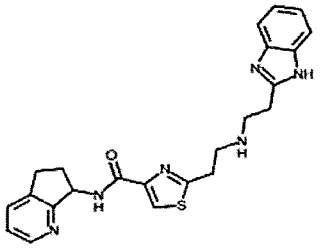
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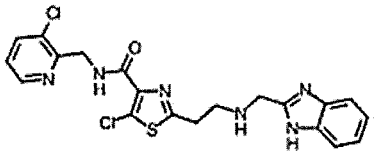
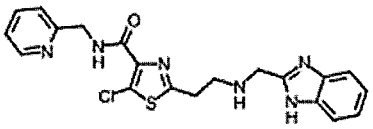
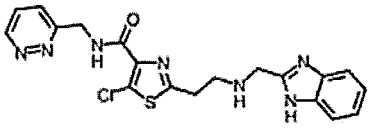
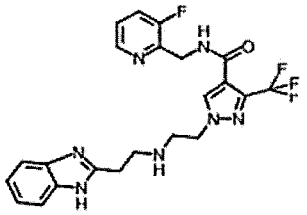
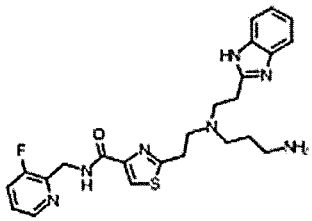
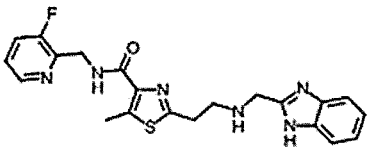
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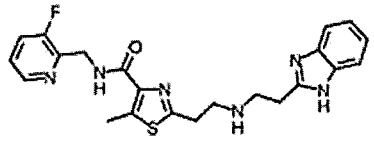
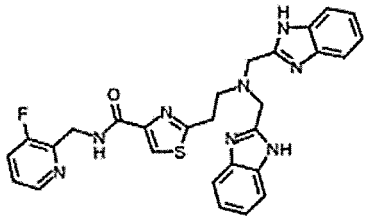
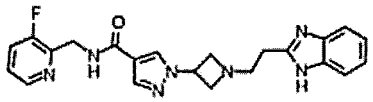
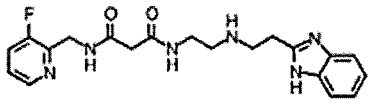
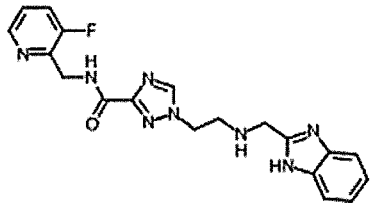
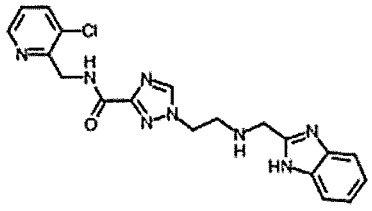
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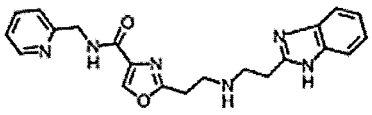
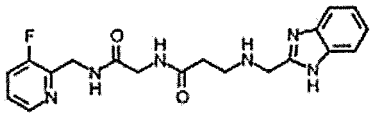
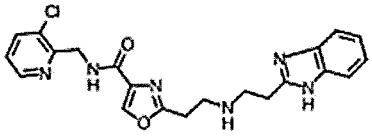
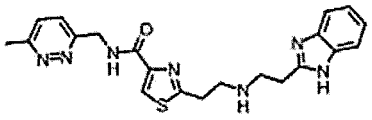
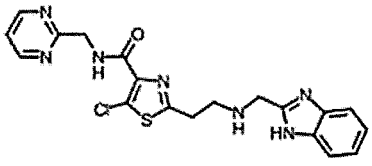
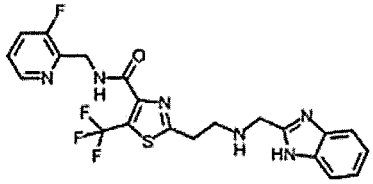
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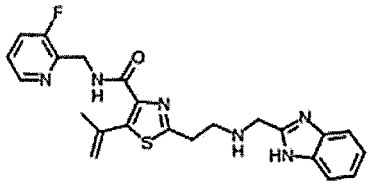
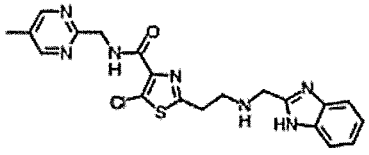
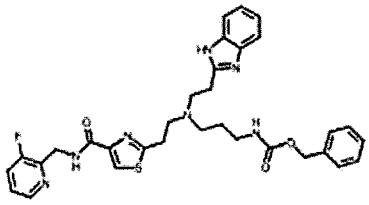
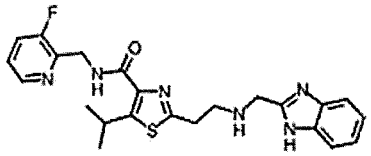
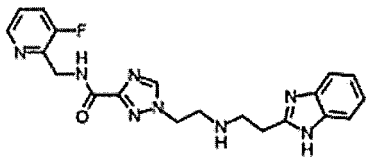
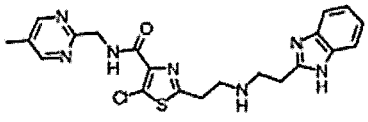
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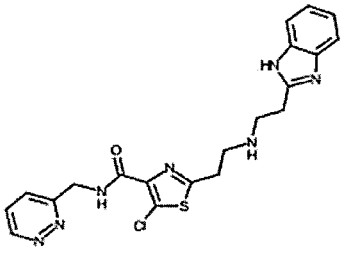
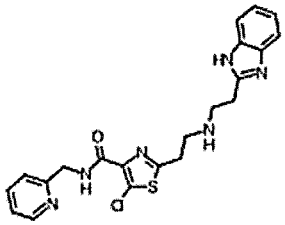
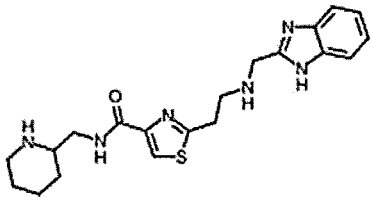
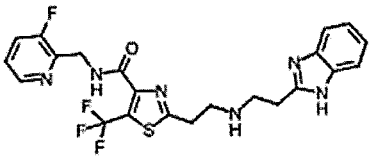
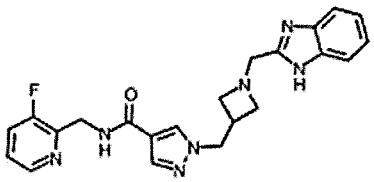
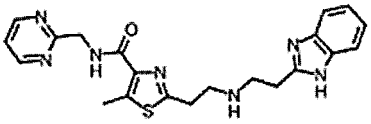
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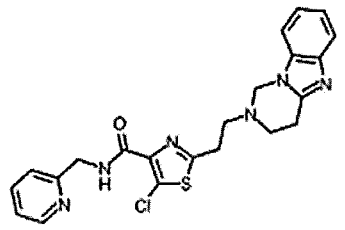
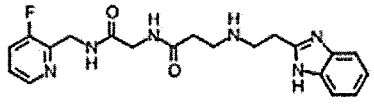
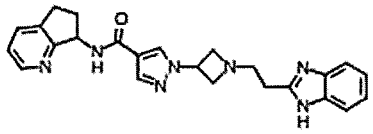
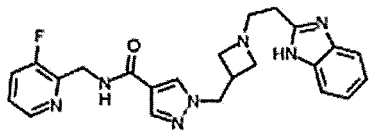
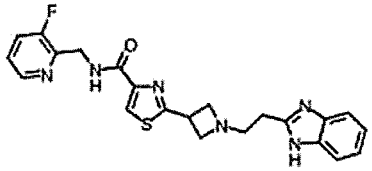
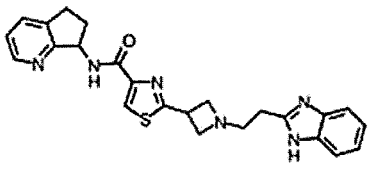
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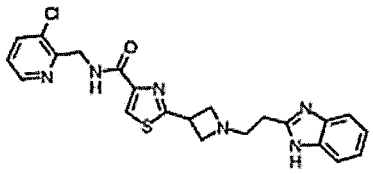
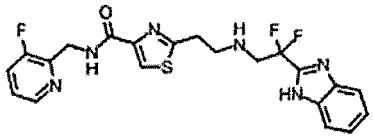
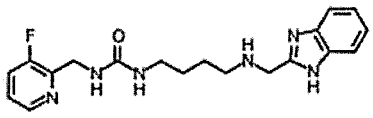
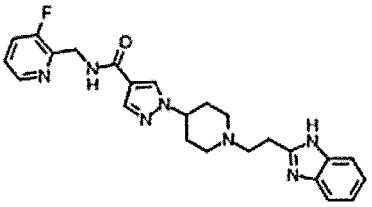
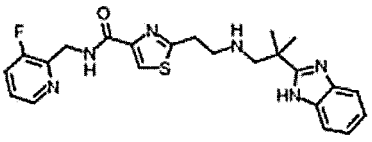
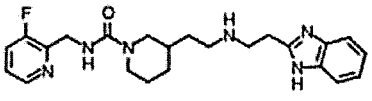
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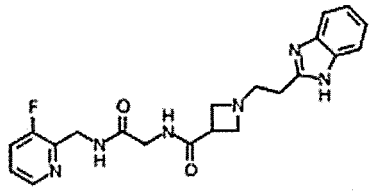
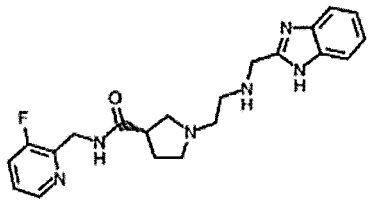
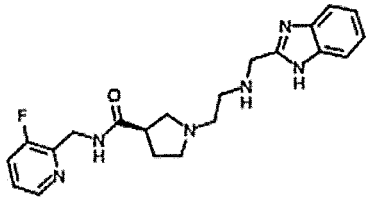
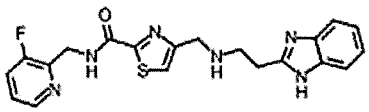
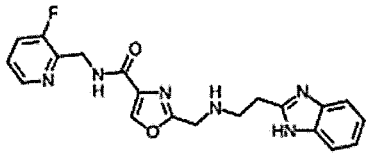
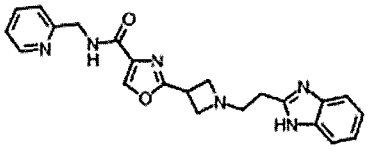
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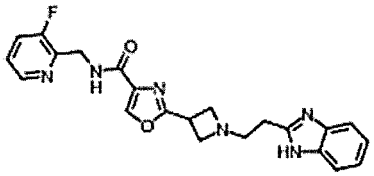
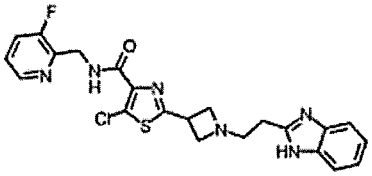
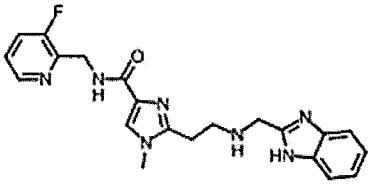
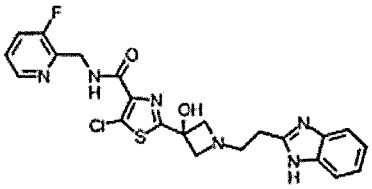
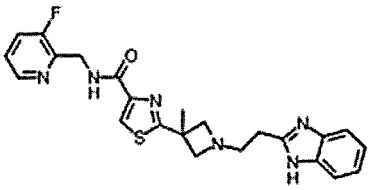
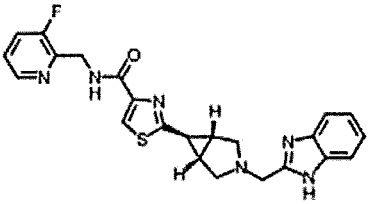
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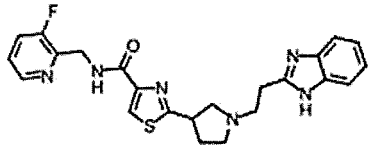
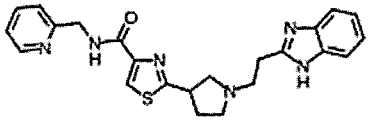
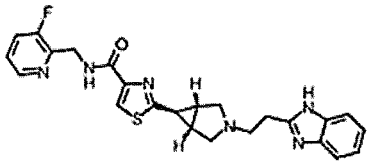
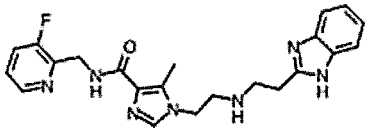
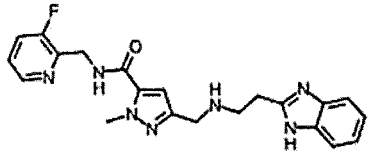
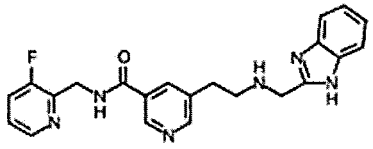
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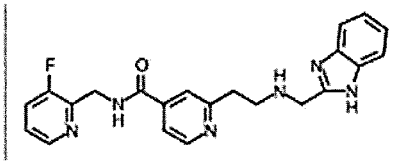
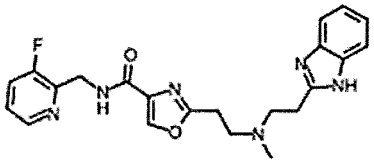
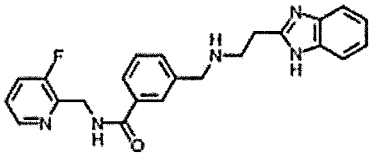
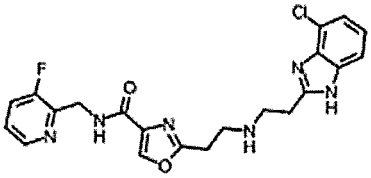
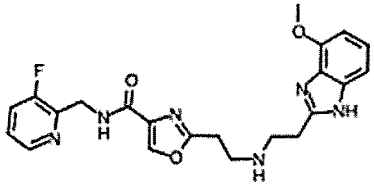
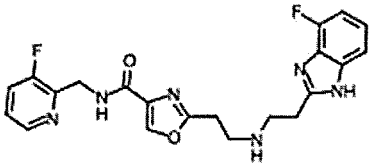
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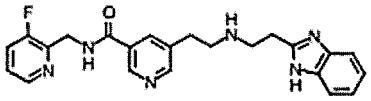
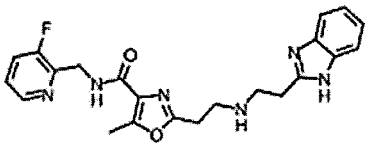
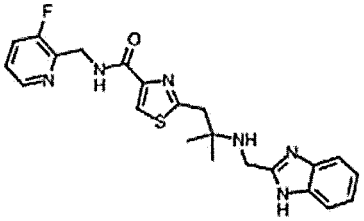
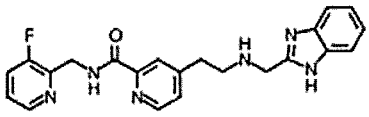
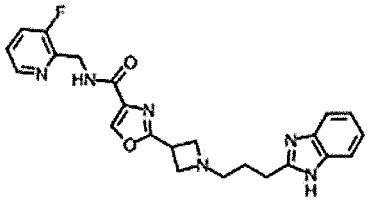
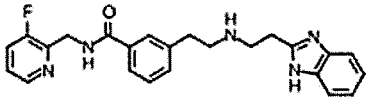
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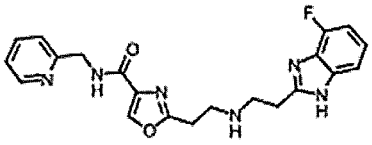
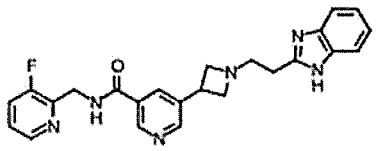
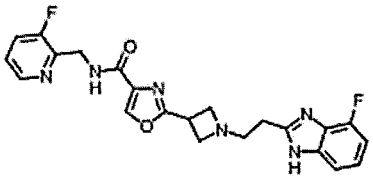
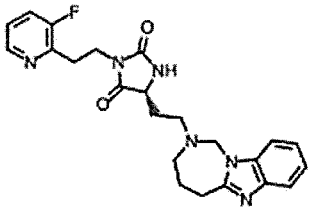
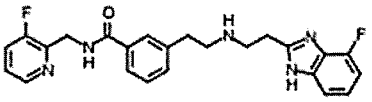
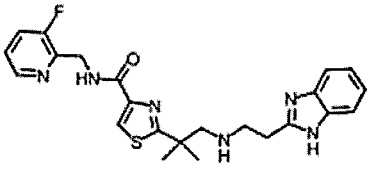
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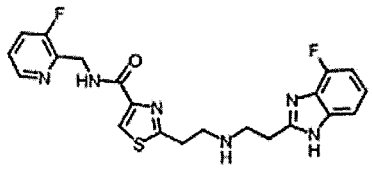
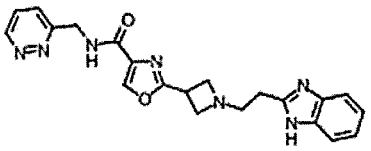
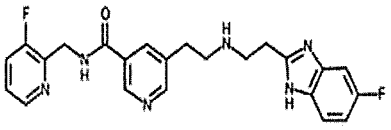
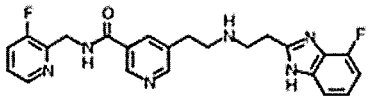
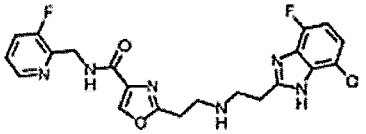
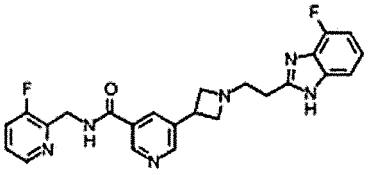
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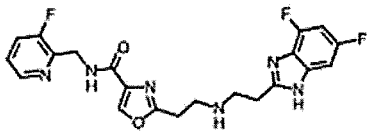
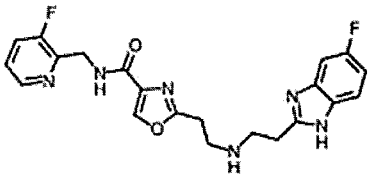
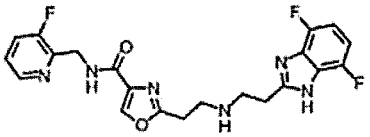
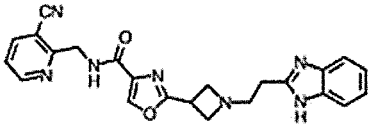
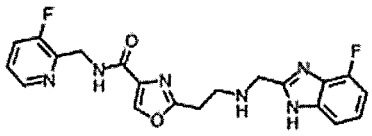
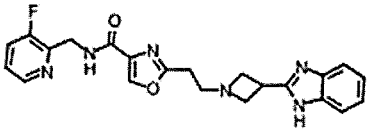
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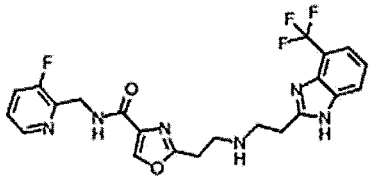
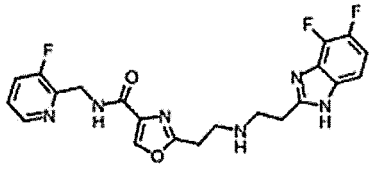
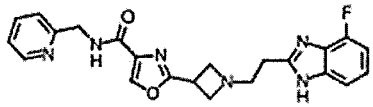
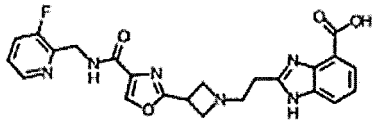
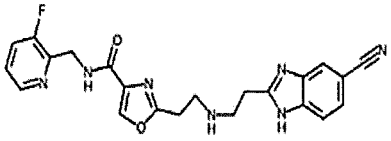
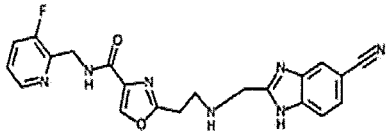
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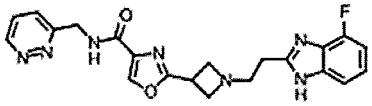
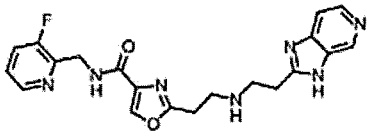
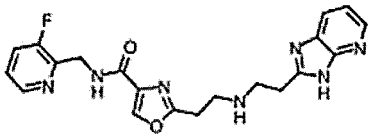
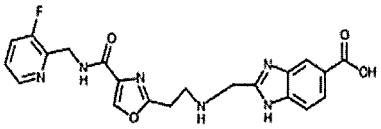
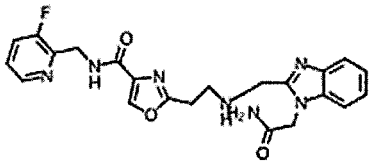
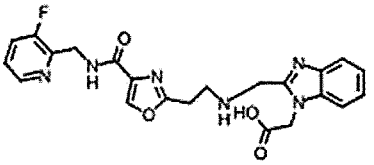
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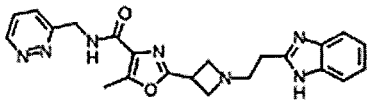
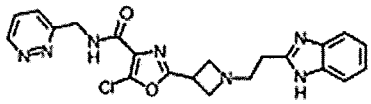
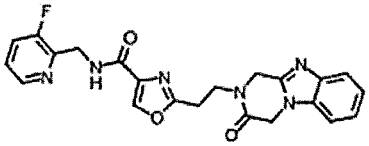
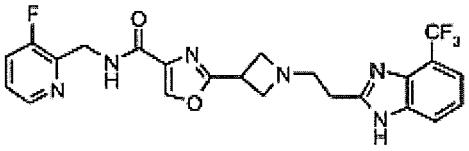
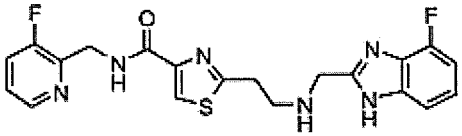
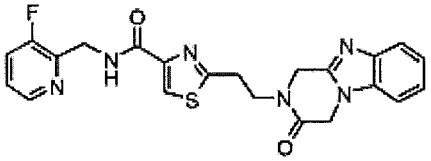
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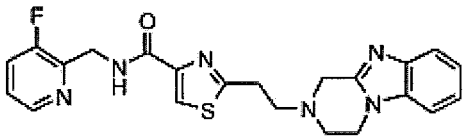
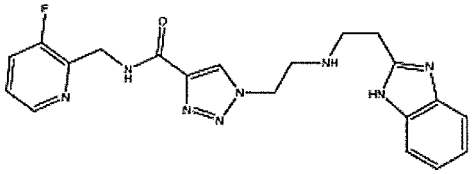
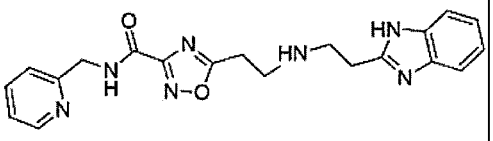
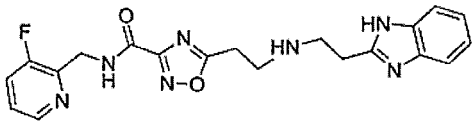
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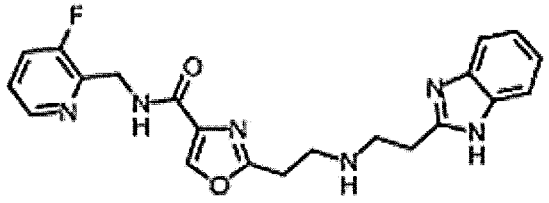
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or pharmaceutically acceptable salts thereof.

10. The use according to any one of the preceding claims, wherein the compound has the formula



or pharmaceutically acceptable salts thereof.

11. The use according to any one of the preceding claims for the inhibition of iron transport mediated by ferroportin.

12. The use according to any one of the preceding claims for the prophylaxis and/or treatment of diseases related to or caused by increased iron levels, increased iron absorption or iron overload.

13. The use according to claim 12, wherein the diseases related to or caused by increased iron levels, increased iron absorption or iron overload are diseases associated with ineffective erythropoiesis, such as preferably myelodysplastic syndromes (MDS, myelodysplasia), polycythemia vera and congenital dyserythropoietic anemia.

14. The use according to any one of the preceding claims for the prophylaxis and/or treatment of diseases caused by reduced levels of hepcidin.

15. The use according to any one of the preceding claims, wherein said medicament is to be used as an adjunctive therapy by limiting the amount of iron available to pathogenic microorganisms, such as the bacterium Vibrio vulnificus, thereby treating infections caused by said pathogenic microorganisms.

16. The use according to any one of the preceding claims, wherein the diseases related to or caused by increased iron levels, increased iron absorption or iron overload are selected from thalassemia, including alpha-thalassemia, beta-thalassemia and delta-thalassemia, hemoglobinopathy, hemoglobin E disease, hemoglobin H disease, haemochromatosis, hemolytic anemia, including in particular sickle cell anemia and congenital dyserythropoietic anemia.

17. The use according to any one of the preceding claims, wherein the diseases related to or caused by increased iron levels, increased iron absorption or iron overload are selected from neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease, therein limiting the deposition or increase of iron in tissue or cells.

18. The use according to any one of the preceding claims for the prophylaxis and/or treatment of formation of radicals, reactive oxygen species (ROS) and oxidative stress.

19. The use according to any one of the preceding claims forthe prophylaxis and/or treatment of cardiac, liver and endocrine damage caused by iron overload and/or inflammation triggered by excess iron.

20. The use according to any one of the preceding claims, further comprising one or more pharmaceutical carriers and/or auxiliaries and/or solvents and/or at least one additional pharmaceutically active compound, which is preferably selected from active compounds for the prophylaxis and treatment of iron overload, thalassemia, or haemochromatosis, active compounds for the prophylaxis and treatment of neurodegenerative diseases, such as Alzheimer's disease or Parkinson's disease, and the associated symptoms, and iron-chelating compounds.

21. The use according to claim 20, wherein the medicament is in the form of a formulation for oral or parenteral administration.

22. The use according to any one of the preceding claims, wherein said medicament is to be used in a combination therapy, wherein the compounds as defined in any of the preceding claims are to be co-administered with at least one additional pharmaceutically active compound, wherein

said combination therapy comprises a fixed dose combination therapy, wherein the compounds as defined in any of the preceding claims are to be co-administered with at least one additional pharmaceutically active compound in a fixed-dose formulation; or

said combination therapy comprises a free dose combination therapy, wherein the compounds as defined in any of the preceding claims are to be co-administered at least one additional pharmaceutically active compound in free doses of the respective compounds; wherein the individual compounds are to be administered simultaneously; or the individual compounds are to be administered sequentially, distributed over a time period; and

wherein the one or more other pharmaceutically active compounds are preferably active compounds for reducing iron overload, which are selected from Tmprss6-ASO, iron chelators, curcumin, SSP-004184, Deferitrin, deferasirox, deferoxamine and/or deferiprone; and/or pharmaceutically active compounds which are selected from antioxidants, such as n-acetyl cysteine; anti-diabetics, such as GLP-1 receptor agonists; antibiotics, such as vancomycin (Van) or tobramycin; drugs for the treatment of malaria; anticancer agents; antifungal drugs; drugs for the treatment of neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease, comprising dopamine agonists such as Levodopa; anti-viral

drugs, such as interferon-α or ribavirin; immunosuppressents, such as cyclosporine A or cyclosporine A derivatives; iron supplements; vitamin supplements; red cell production stimulators; anti-inflammatory biologies; anti-thrombolytics; statins; vasopressors; and inotropic compounds.

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