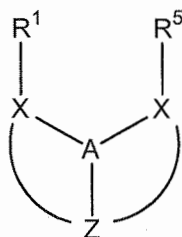


a metabolic condition. It is also an aim to provide methods of synthesis of the inhibitor compounds, and methods of screening for new SLC2A class I transporter inhibitors.

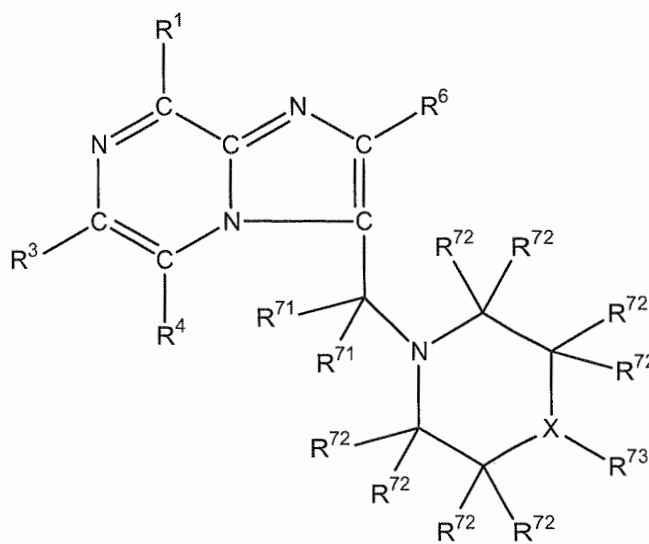
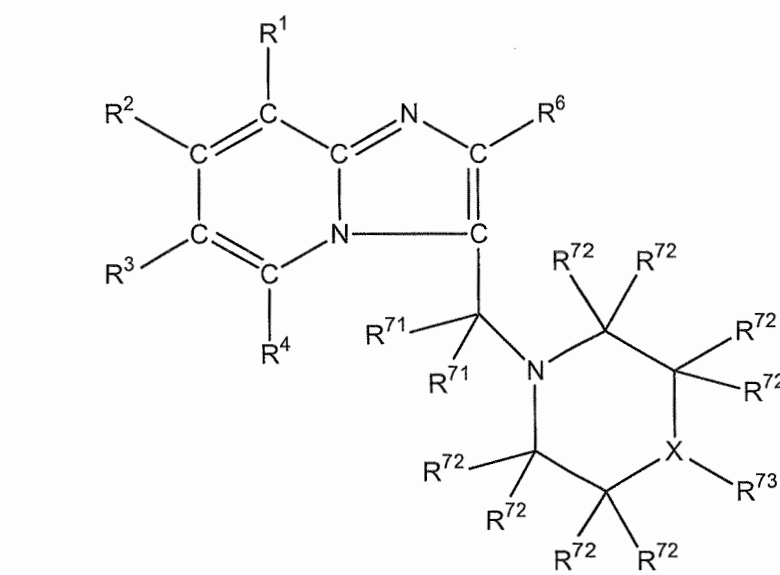
Accordingly, the present ~~invention~~ disclosure provides a SLC2A class I transporter inhibitor compound for use in medicine, which compound comprises the following formula:



wherein A and Z may be the same or different and are each independently selected from C and N; each X may be the same or different and is independently selected from C, N, O and S; R¹ and R⁵ may be present or absent and may be the same or different and are each selected from H and a substituted or unsubstituted organic group; R¹ and R⁵ may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; Z completes a ring with each X, each ring comprising from 3 to 8 ring atoms including the X, A, and Z, each ring atom being independently selected from C, N, O and S, and each ring atom being unsubstituted or independently substituted with H or a substituted or unsubstituted organic group; and wherein the bonds between all of the atoms in the rings including the X, A, and Z may independently be single bonds or double bonds, provided that when X or a ring atom is O or S the bonds to X are single bonds.

In the above structure, when A is C it may comprise a further substituent selected from H or an organic group, or alternatively it may be double bonded to one X. This further substituent may, together with either R¹ and/or R⁵, form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring. As with rings formed together by R¹ and R⁵, the homocyclic ring is typically a carbocyclic ring.

According to an aspect, there is provided an SLC2A class I transporter inhibitor compound for use in medicine, which compound comprises a formula selected from one of the following:



wherein R¹, R², R³, R⁴ and R⁶ may be the same or different and are independently selected from H and a substituted or unsubstituted organic group;

X is independently selected from N, O and S; each R⁷¹ and each R⁷² may be the same or different and are independently selected from H and a substituted or unsubstituted organic group; two R⁷¹ groups and/or two R⁷² groups may together form a carbonyl group; R⁷³ is absent when its X atom is O or S and may be the same or different as R⁷¹ and R⁷² and is independently selected from H and a substituted or unsubstituted organic group; and wherein

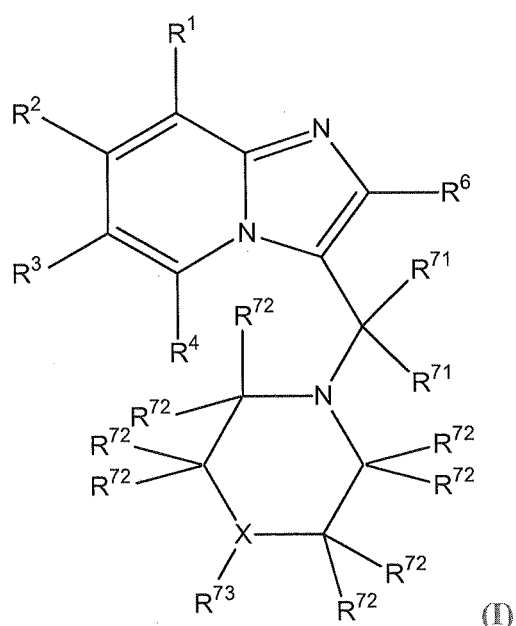
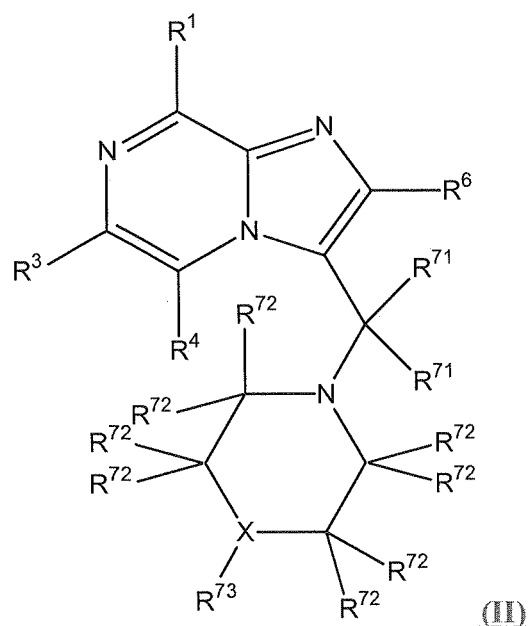
an R^{72} and R^{73} may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring.

According to another aspect, there is provided a compound for use in treating a cancer, an inflammatory condition, an autoimmune condition, a neurological condition, a proliferative disorder, and/or a metabolic condition, which compound is a compound as defined herein.

According to another aspect, there is provided a pharmaceutical composition comprising a compound as defined herein.

According to another aspect, there is provided use of a compound or a composition as defined herein in the manufacture of a medicament for treating a cancer and/or a condition and/or a disorder in a patient.

According to another aspect, there is provided a compound, which compound comprises a formula selected from one of the following:



wherein in (I) the substituents may be selected from one of the following groups (i)-(vi):

(i) R^3 is selected from a substituted or unsubstituted saturated carbocyclic ring having from 3 to 7 ring carbons; and a substituted or unsubstituted aromatic ring having from 3 to 7 ring carbons provided that it is not a 4-methylphenyl group; R^6 is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; X is N; R^{73} is a $-(CO)-R^{75}$ group; and wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{75} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{75} are as defined herein;

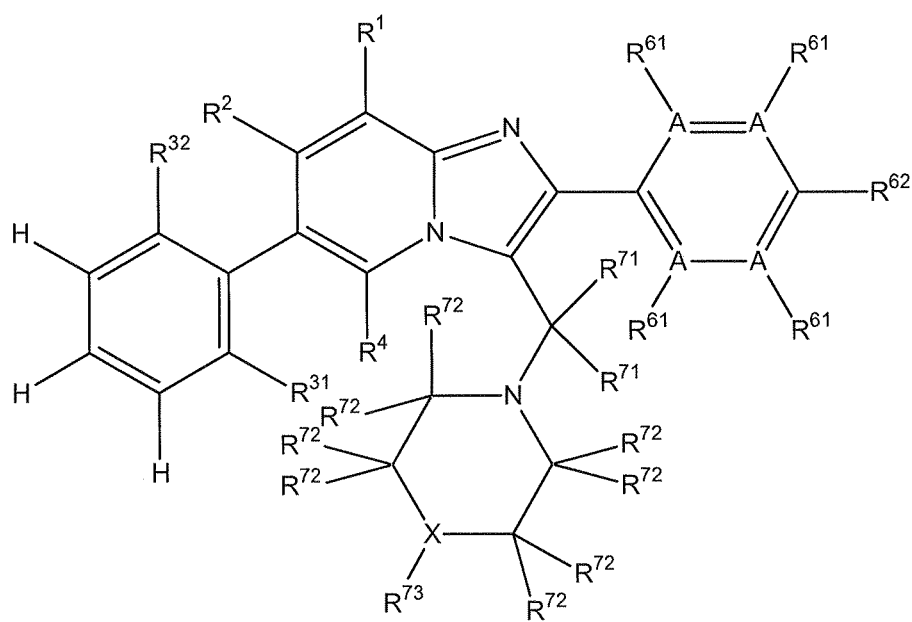
(ii) R^3 is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; R^6 is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; and wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{73} are as defined herein;

(iii) R^3 is a $-Z(R^{33})_2$ group in which Z can be C or N wherein a further H or substituted or unsubstituted organic group or R^{33} group may be present when Z is C; R^{33} is selected from a substituted or unsubstituted linear or branched alkyl group optionally forming a non-aromatic carbocyclic or heterocyclic ring with another R^{33} , a substituted sulphonyl group, and a substituted carbonyl group; provided that the $-Z(R^{33})_2$ group is not $-NH_2$ or an amide bonded to the ring via a C atom; R^6 is a substituted or unsubstituted saturated or unsaturated heterocyclic group preferably having from 4 to 7 ring atoms; X is N; and wherein R^{73} is a $-(CO)-R^{75}$ group; and wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{75} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{75} are as defined herein;

(iv) R^6 is a substituted or unsubstituted saturated homocyclic or heterocyclic group having from 3-7 ring atoms in which each ring atom is selected from C, N, O or S, provided that R^6 is not adamantyl; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; and wherein R^1 , R^2 , R^3 , R^4 , R^{71} , R^{72} and R^{73} are independently selected

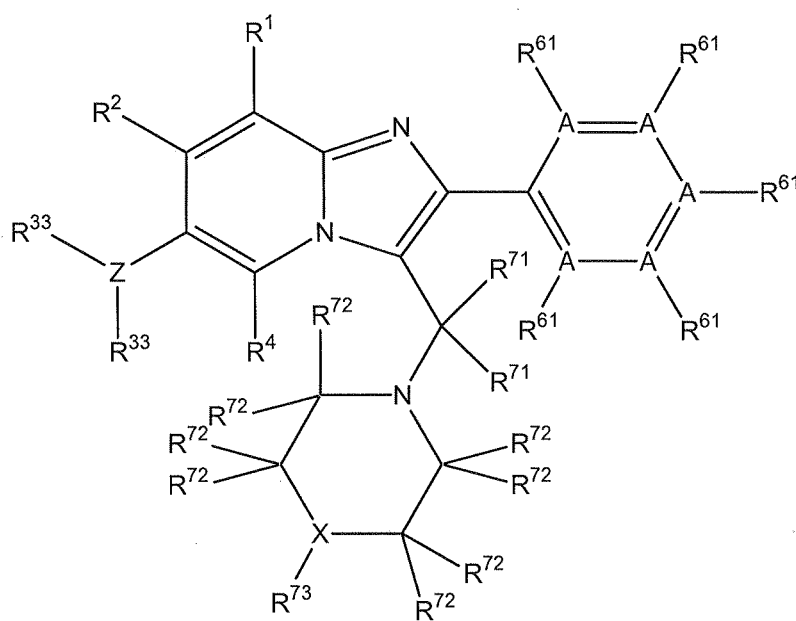
from H and a substituted or unsubstituted organic group; preferably wherein R^1 , R^2 , R^3 , R^4 , R^{71} , R^{72} and R^{73} are as defined herein;

(v) groups such that the compound has a structure as follows:



wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; A may independently be C or N wherein R^{61} is absent when A is N; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; R^{31} is selected from H and a substituted or unsubstituted organic group; R^{32} is selected from a substituted or unsubstituted organic group excluding H; R^{61} is selected from H and a substituted or unsubstituted organic group; and R^{62} is selected from a substituted or unsubstituted organic group excluding H and Me; and

(vi) groups such that the compound has a structure as follows:

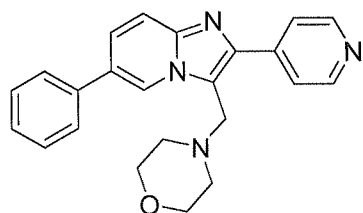


wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; each A may independently be C or N wherein R^{61} is absent when A is N; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; Z can be C or N wherein a further H or substituted or unsubstituted organic group or R^{33} group may be present when Z is C; R^{33} is selected from a substituted or unsubstituted linear or branched alkyl group optionally forming a non-aromatic carbocyclic or heterocyclic ring with another R^{33} , a substituted sulphonyl group, and a substituted carbonyl group; and R^{61} is selected from H and a substituted or unsubstituted organic group;

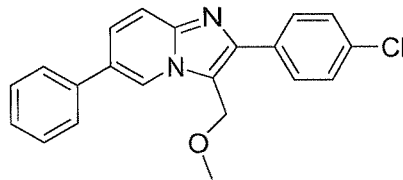
and wherein in (II) the substituents are as follows:

R^1 , R^3 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group, provided that R^3 is not Me; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; and R^6 is selected from H and a substituted or unsubstituted organic group except CO_2H and CO_2Et ; preferably wherein R^1 , R^3 , R^4 , R^{71} , R^{72} and R^{73} are as defined herein.

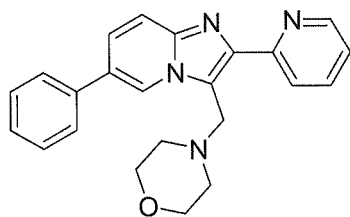
According to another aspect, there is provided a compound, which is a compound of any of the following formulae:



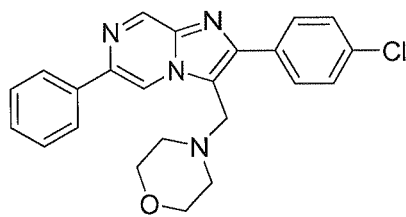
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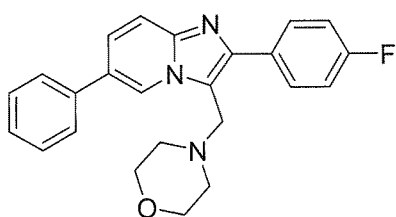
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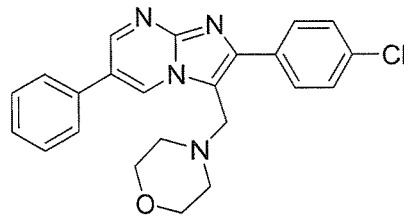
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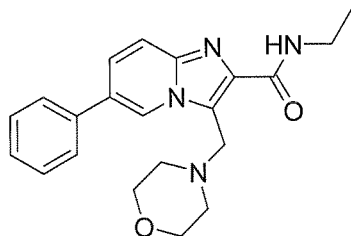
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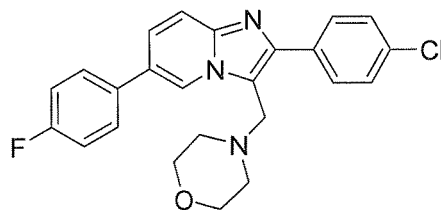
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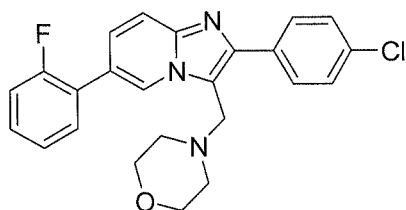
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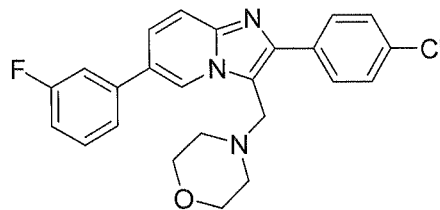
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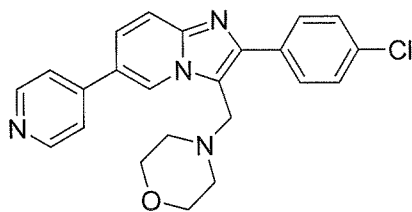
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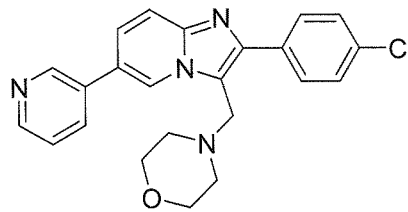
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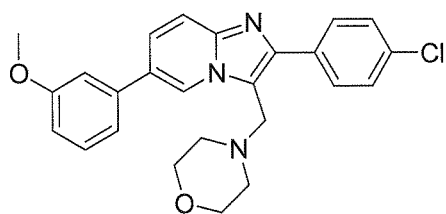


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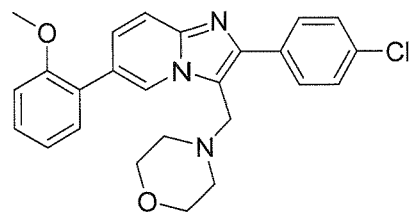


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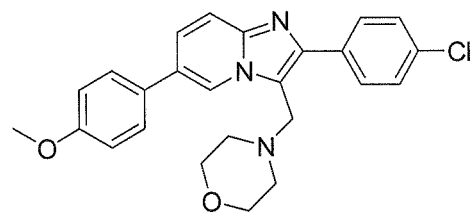
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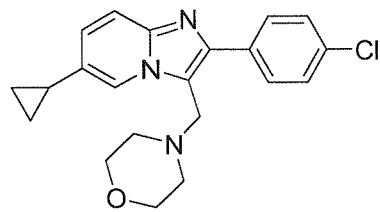
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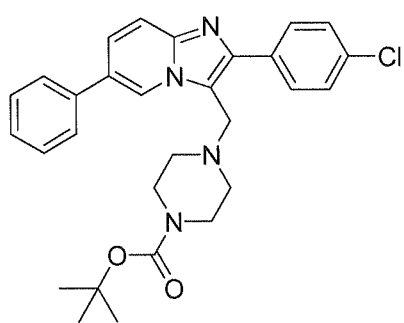
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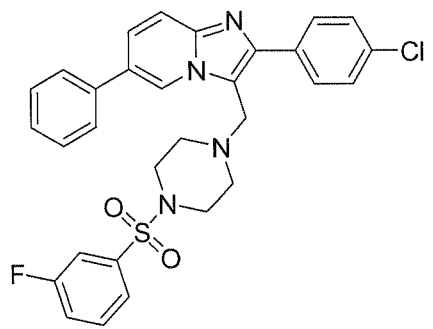
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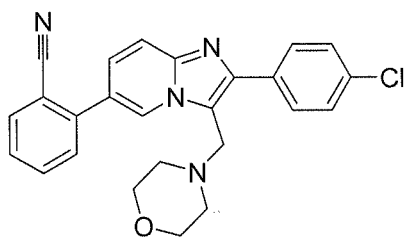
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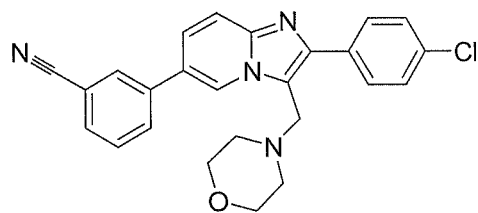
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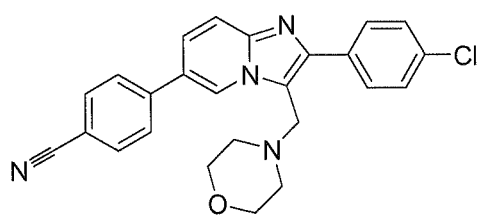
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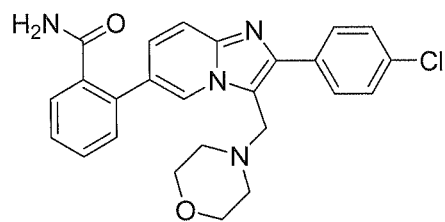
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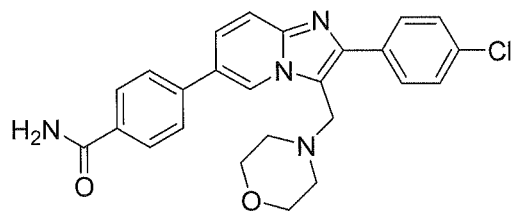
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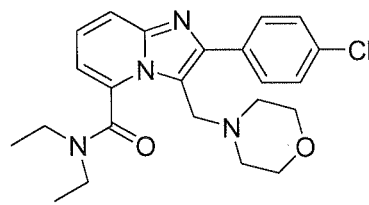
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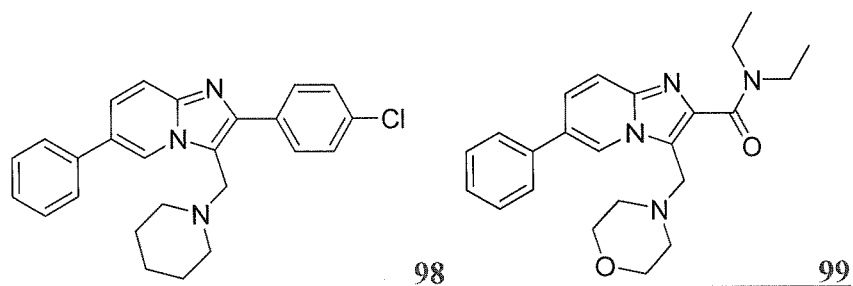
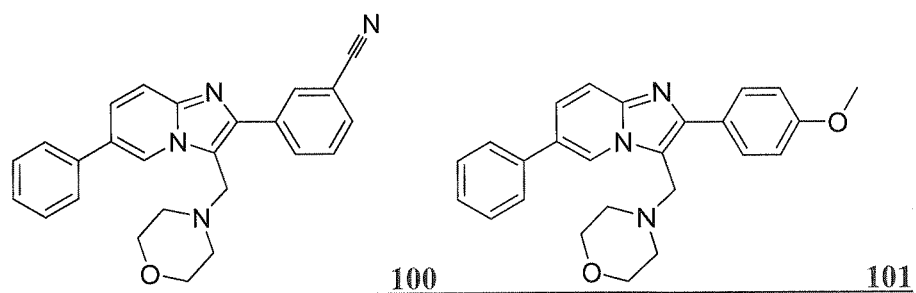
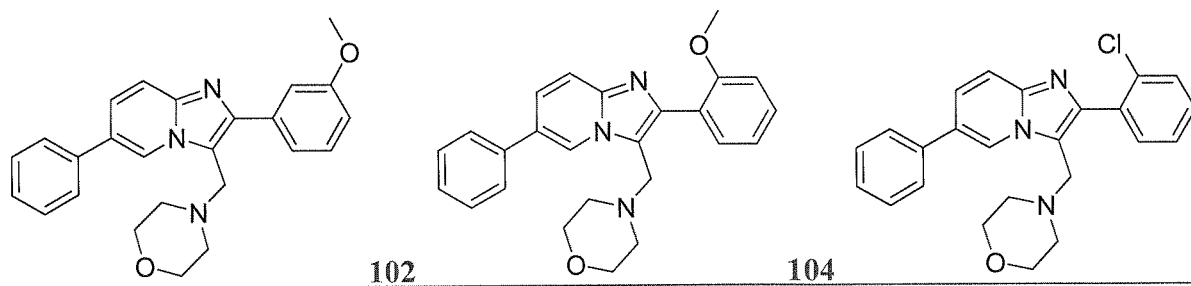
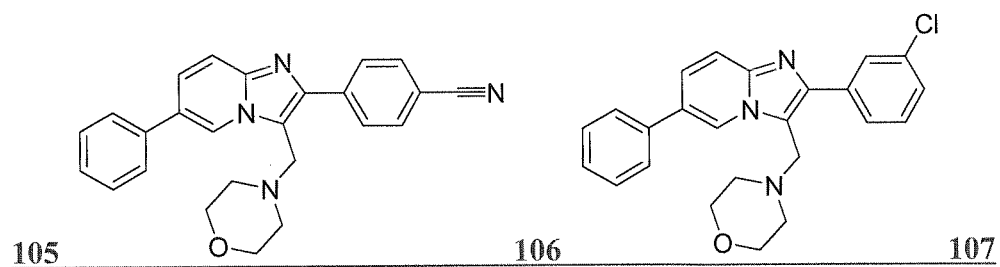
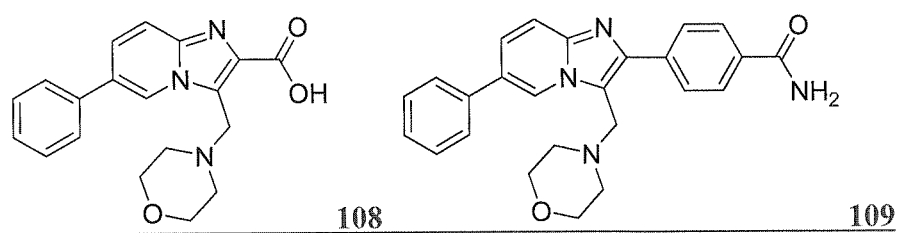
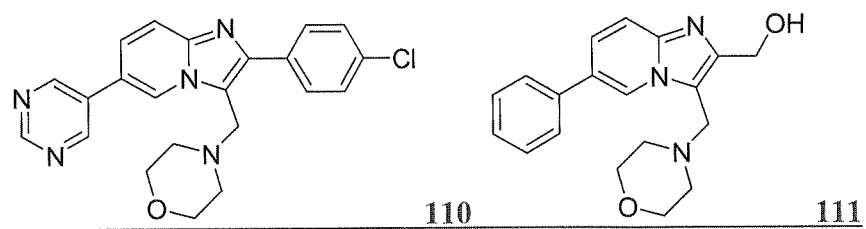


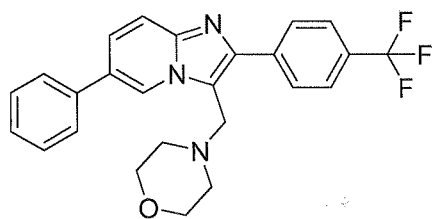
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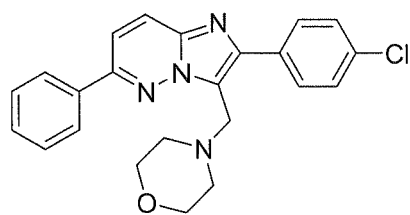
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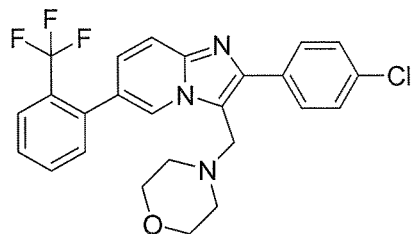




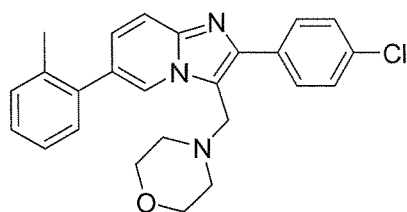
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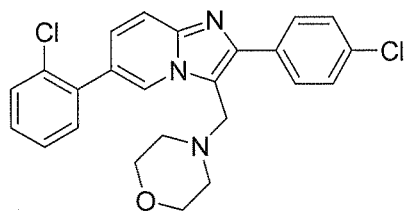
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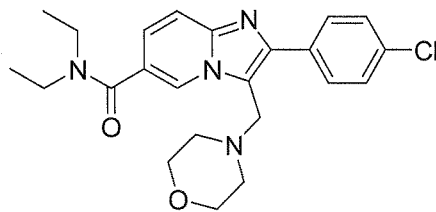
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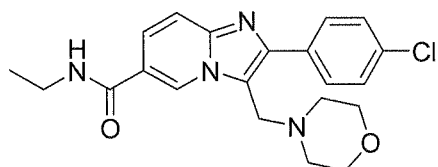
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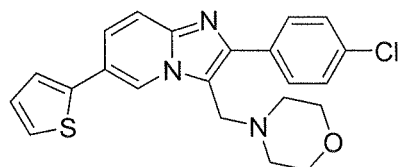
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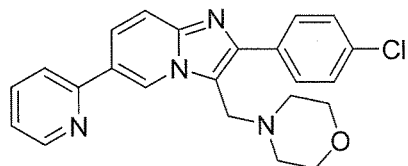
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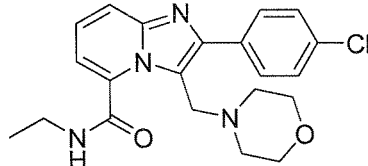
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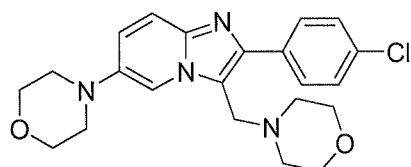
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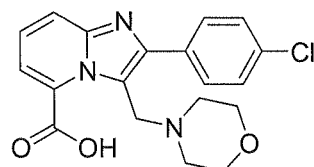
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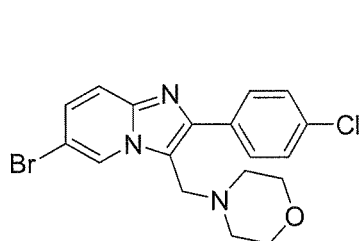
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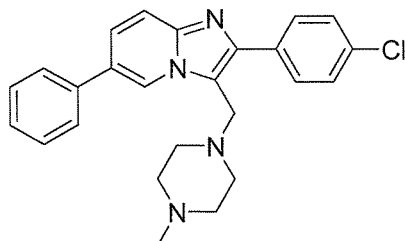
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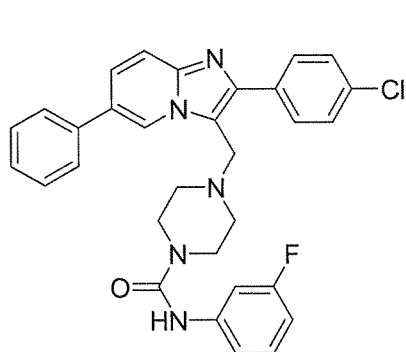


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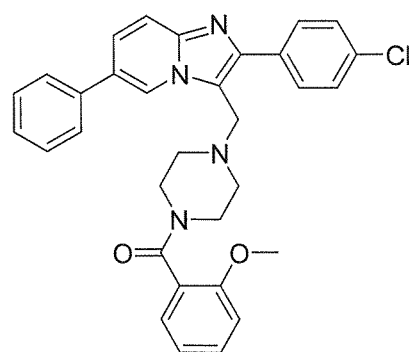


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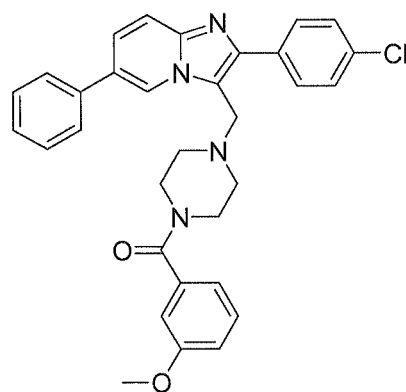
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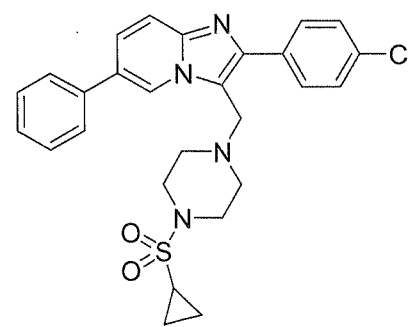
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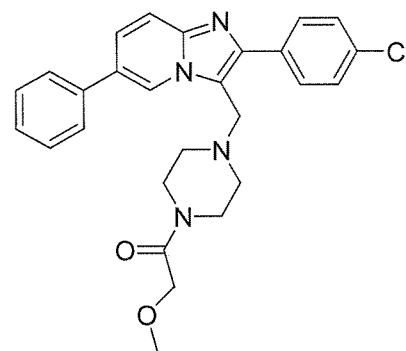
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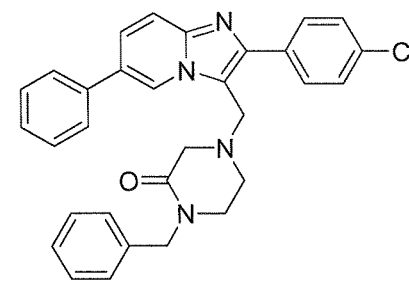
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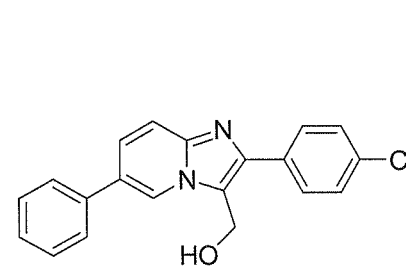
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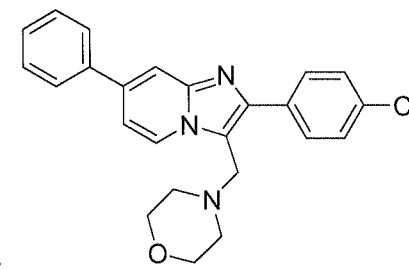
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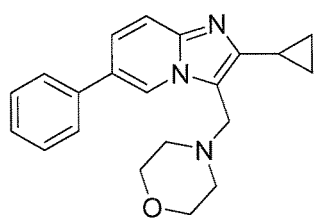
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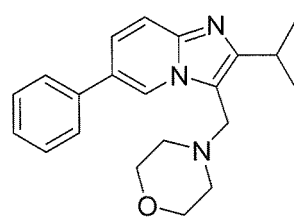
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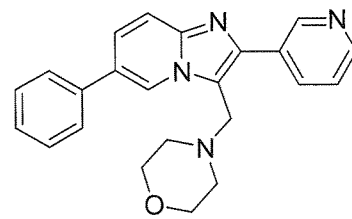
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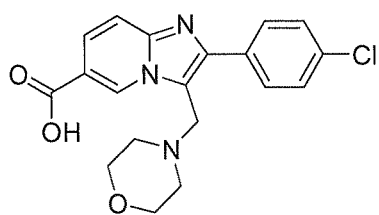


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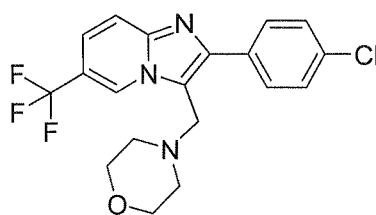


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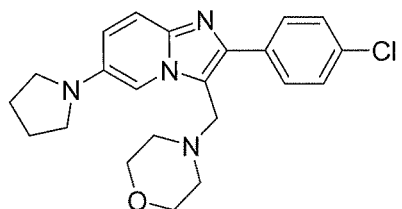
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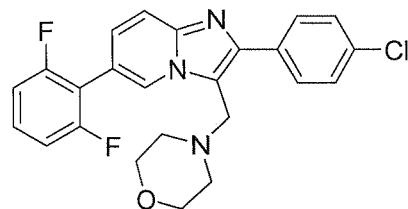
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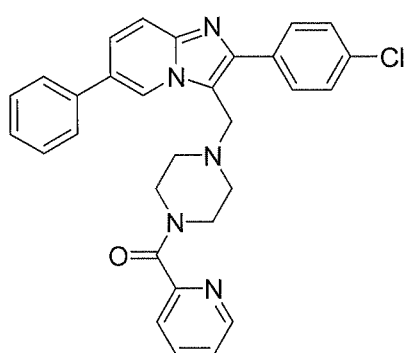
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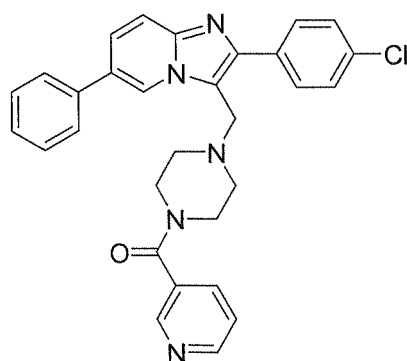
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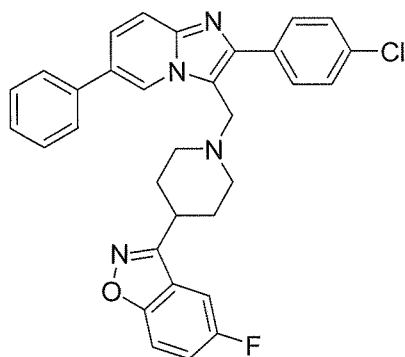
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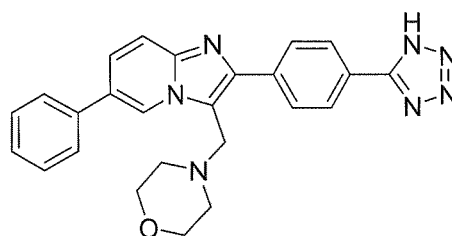
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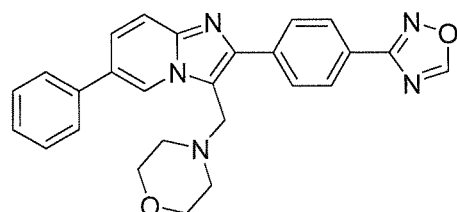
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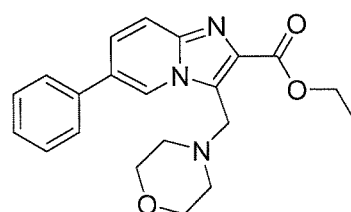
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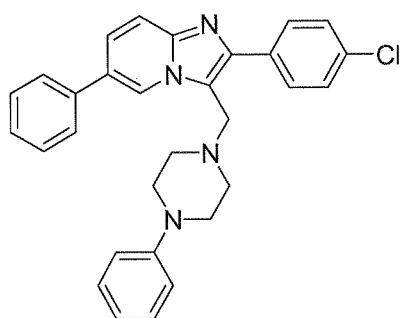
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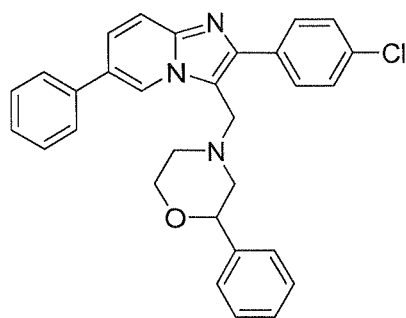
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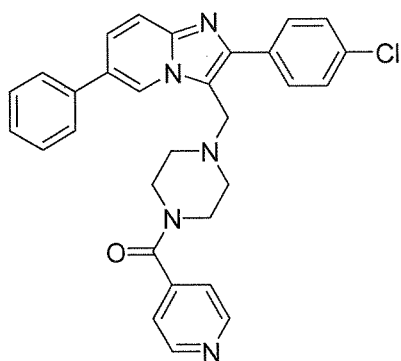
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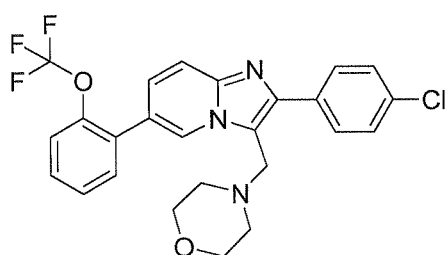
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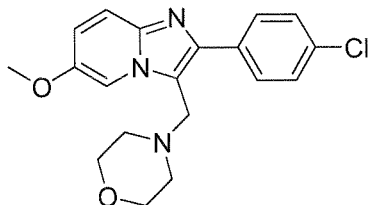
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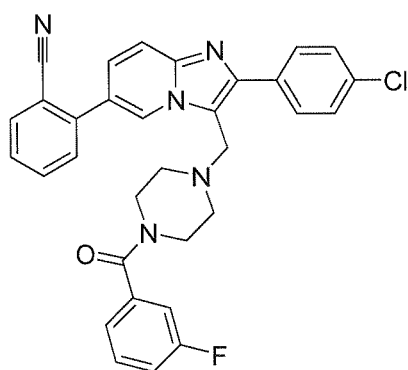
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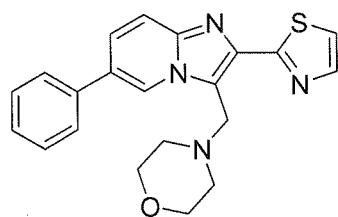
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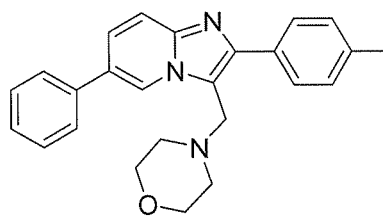
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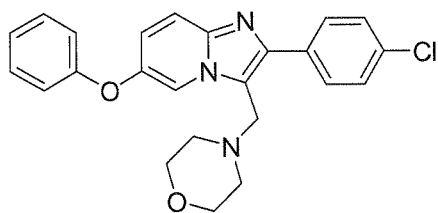
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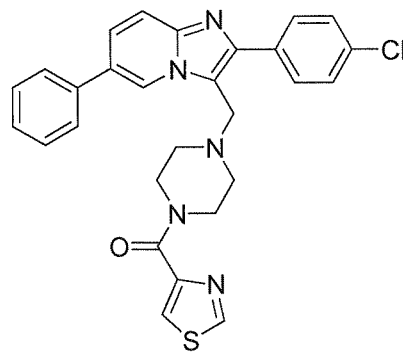
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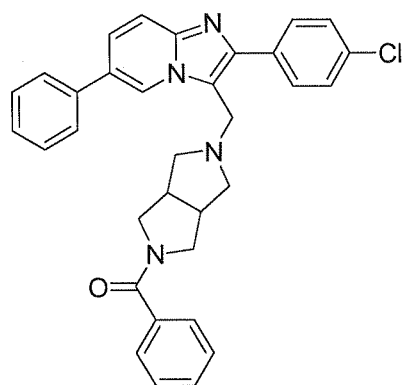


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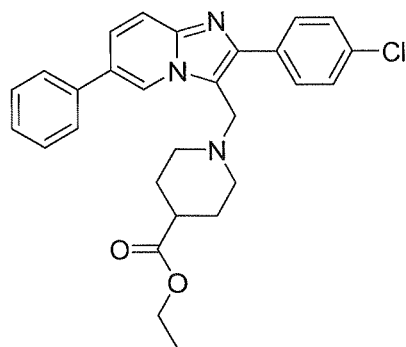


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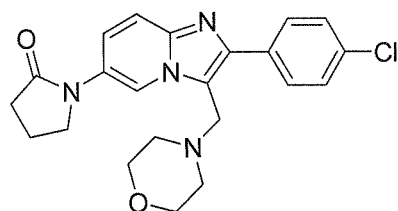
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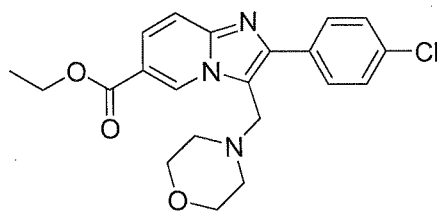
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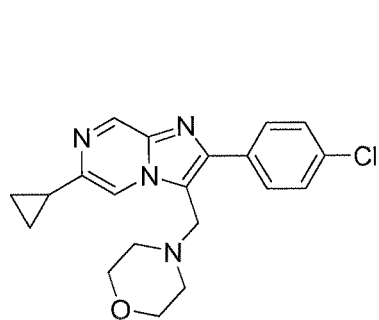
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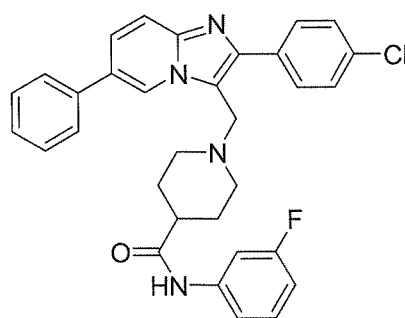
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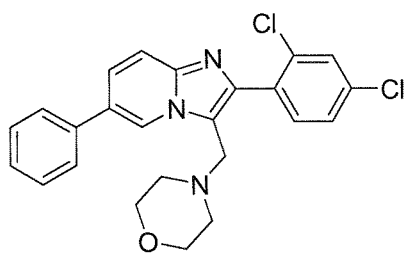
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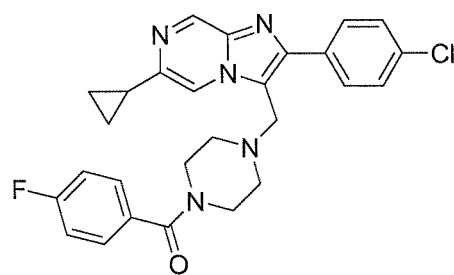
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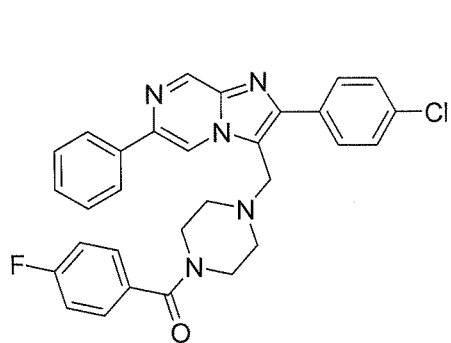
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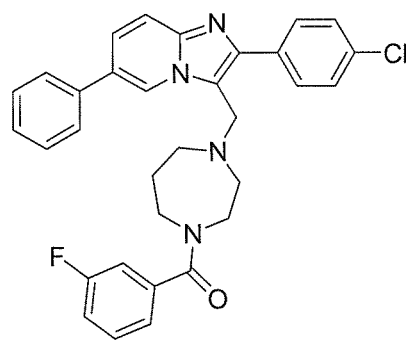
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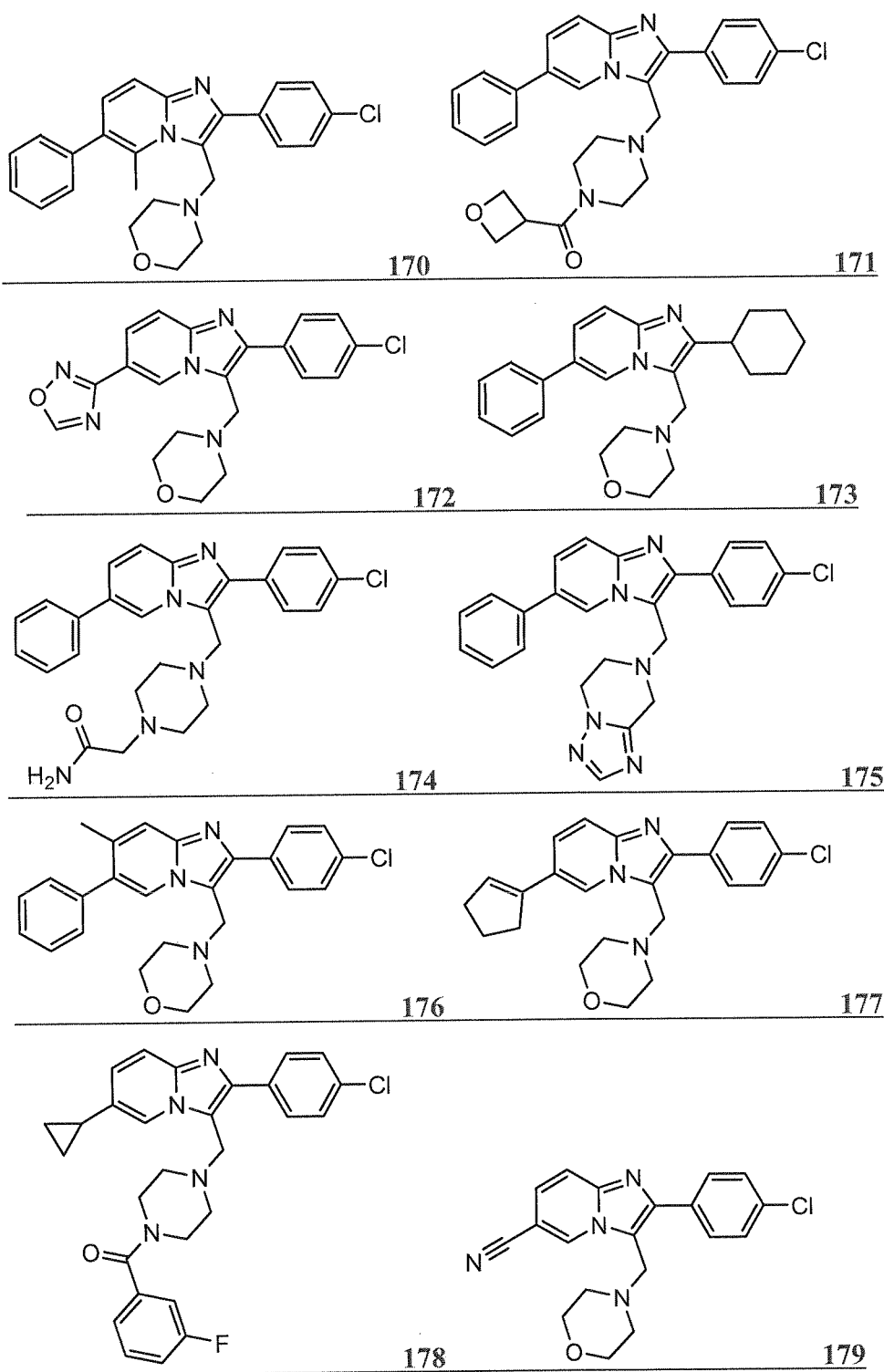


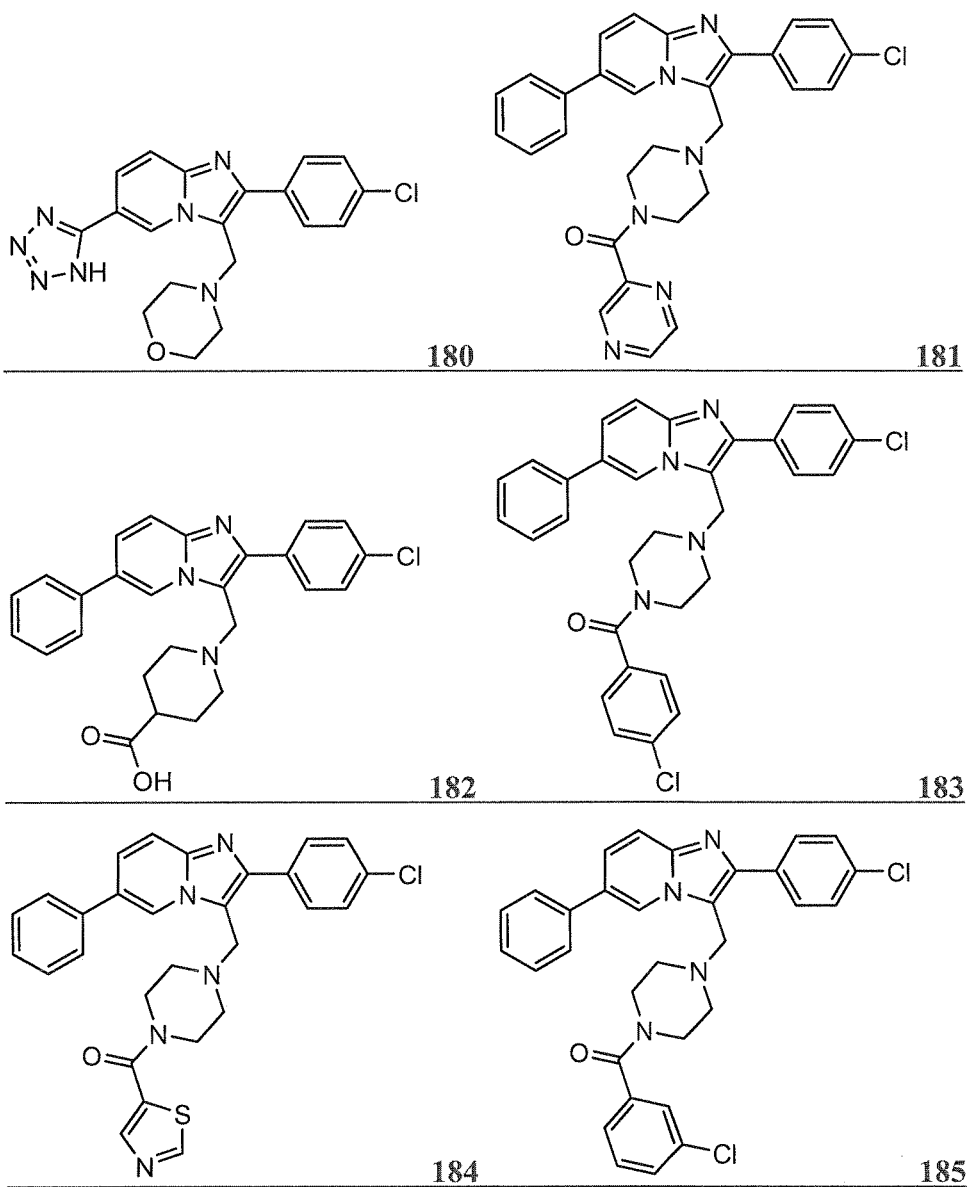
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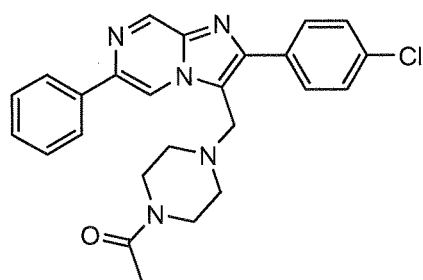


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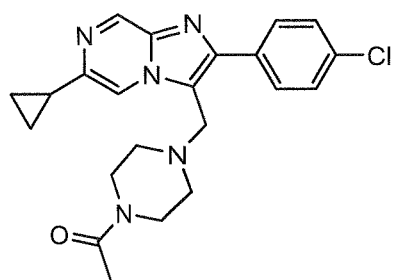
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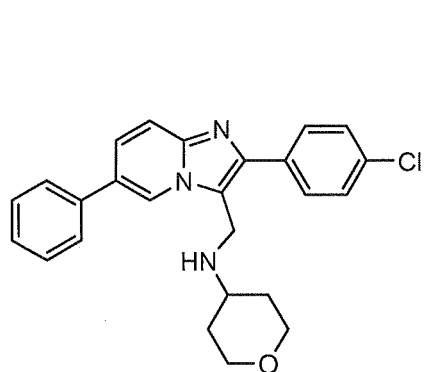




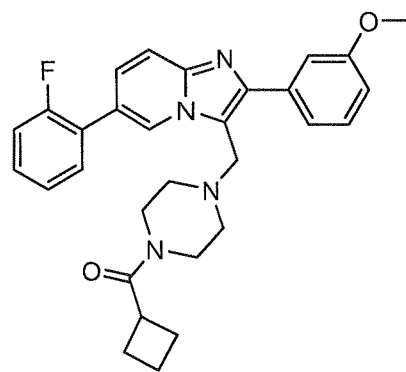
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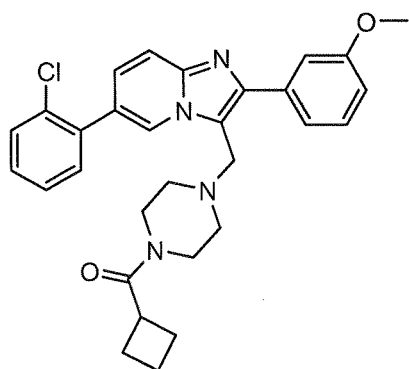
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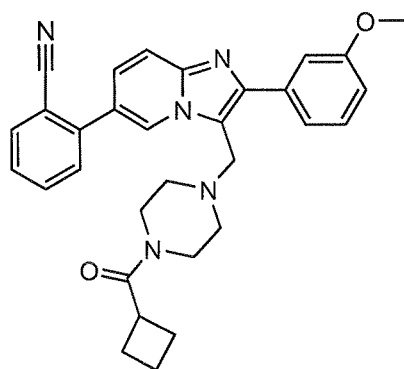
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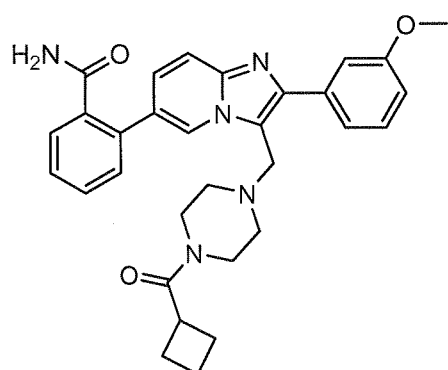
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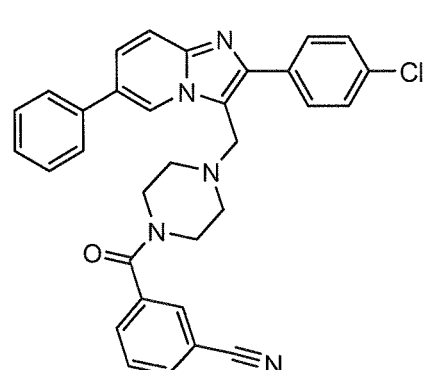
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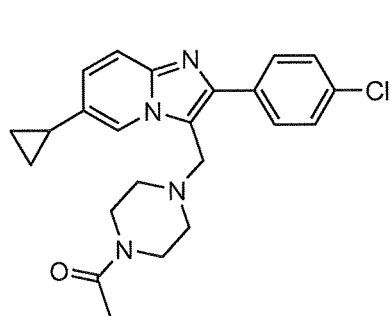
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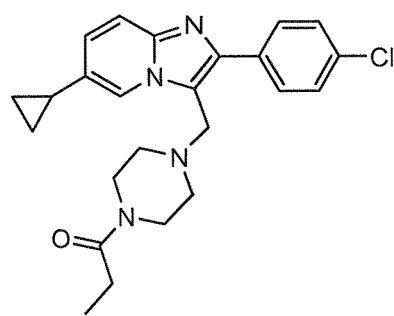
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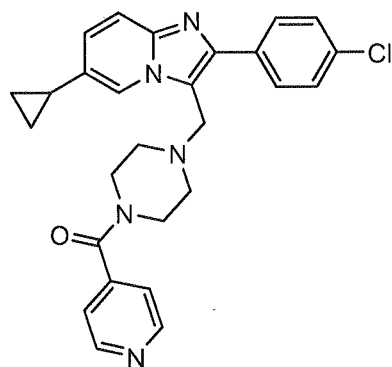
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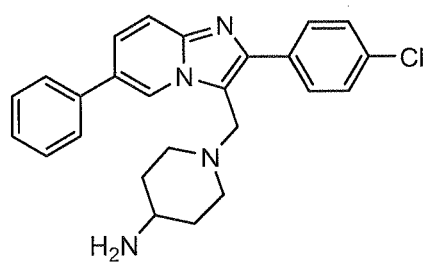
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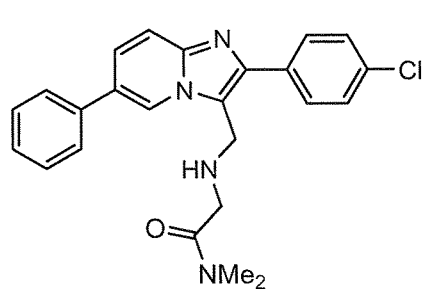
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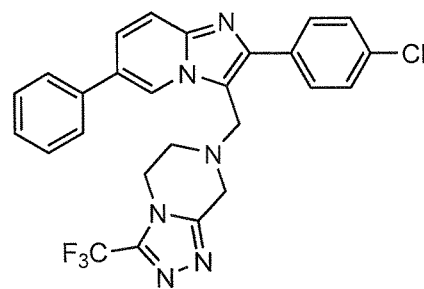
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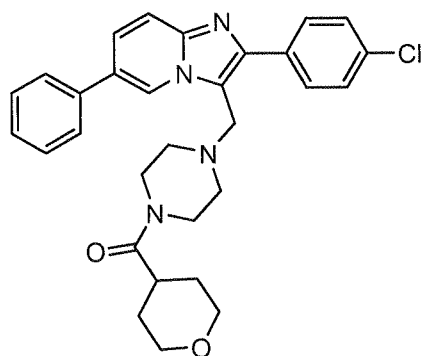
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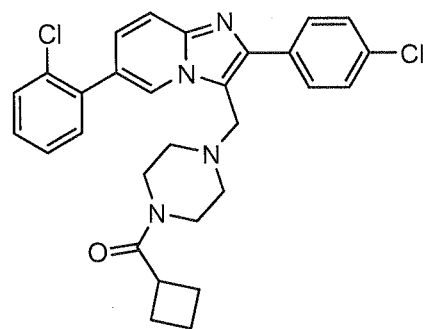
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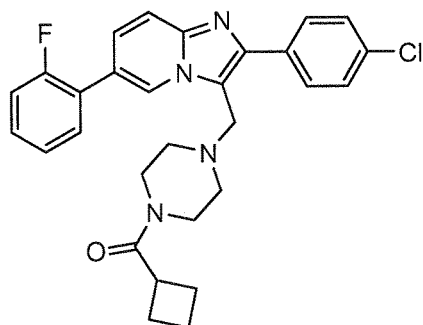
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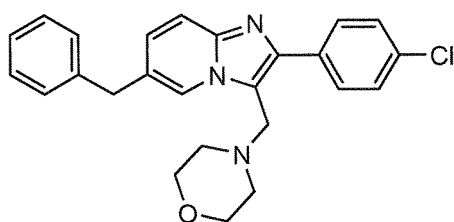
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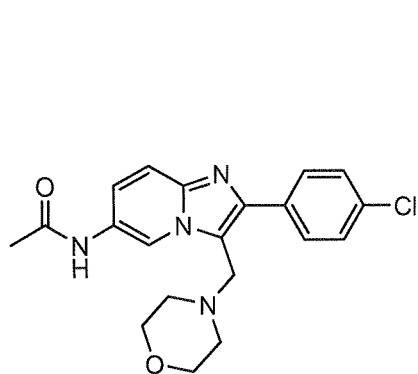
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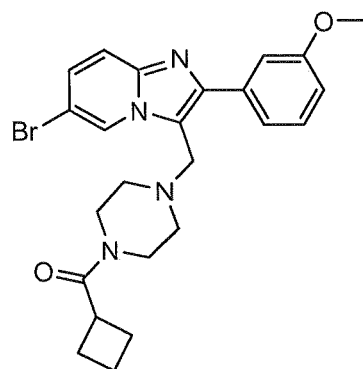
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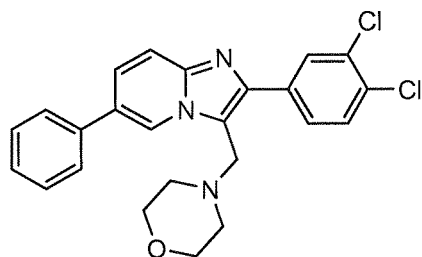
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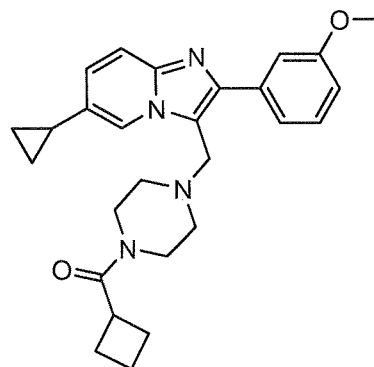
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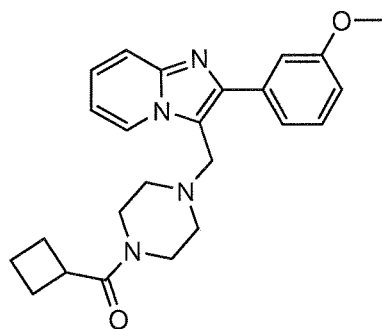
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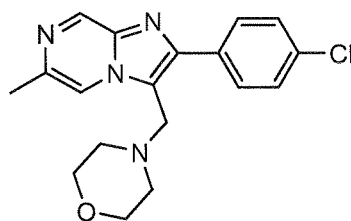
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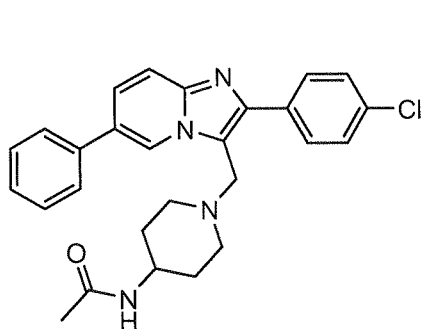
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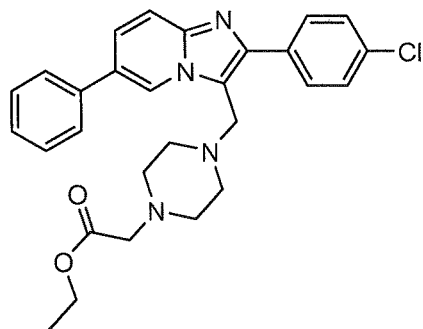
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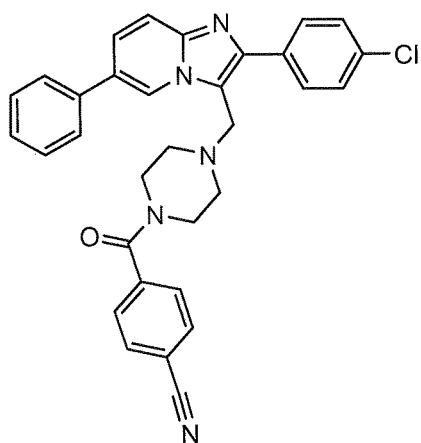


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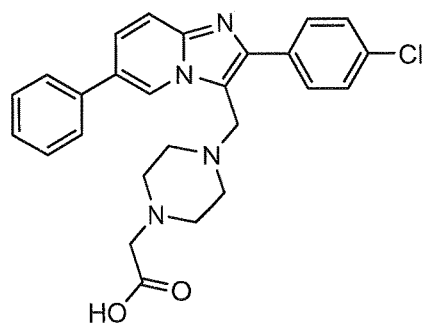


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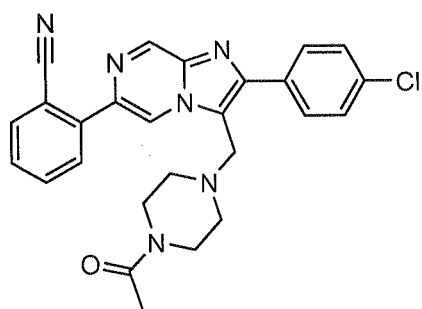




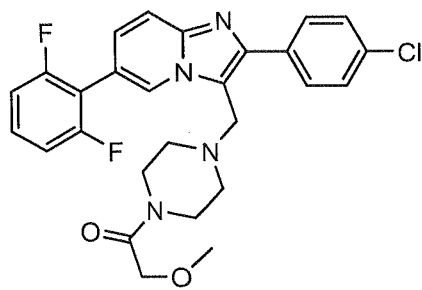
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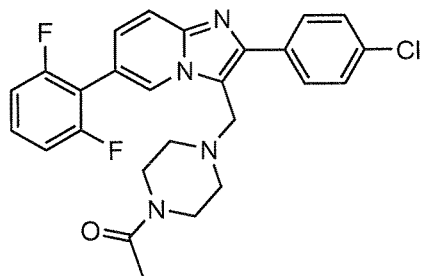
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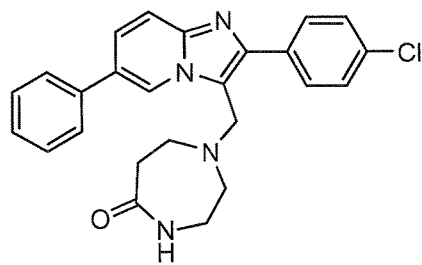
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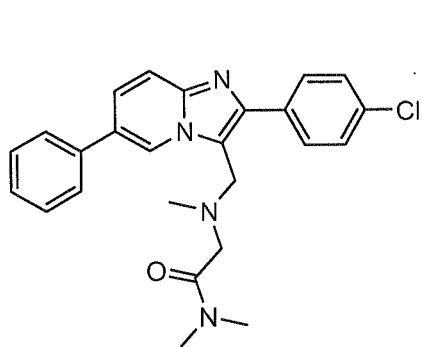
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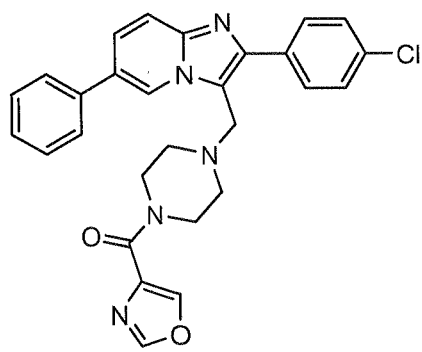
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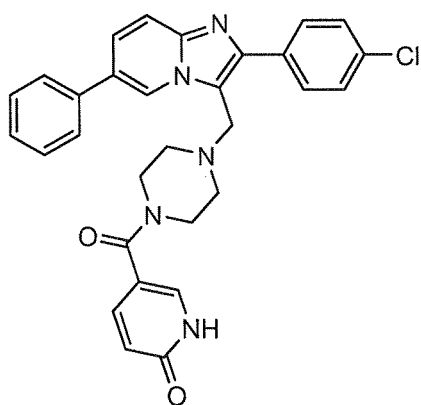
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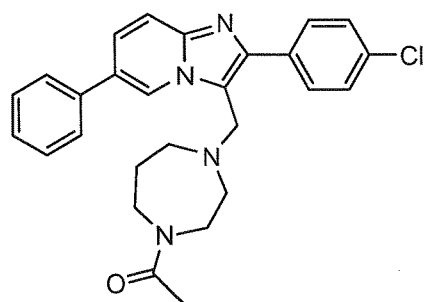
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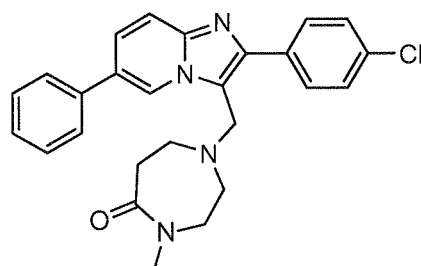
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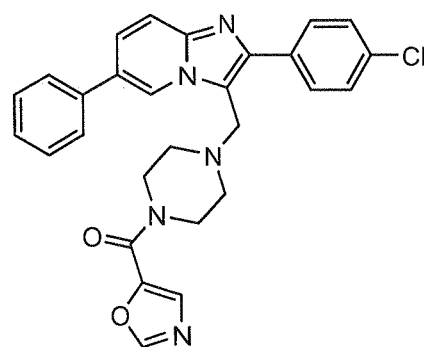
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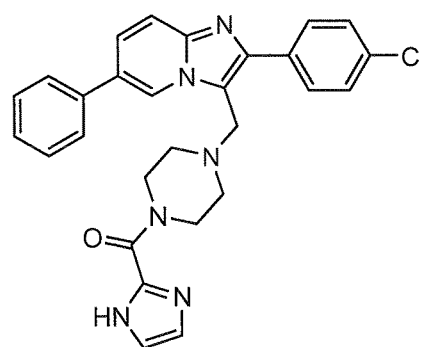
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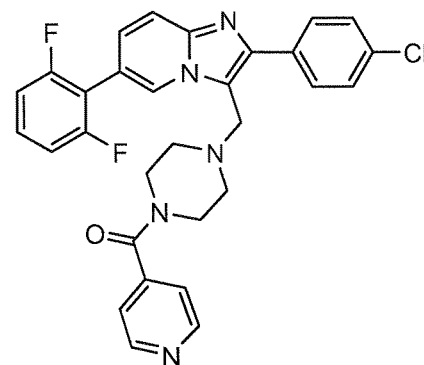
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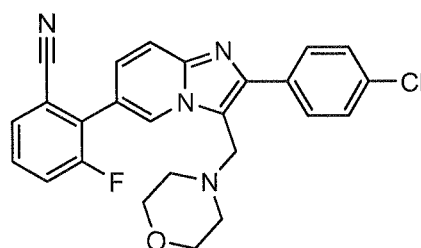
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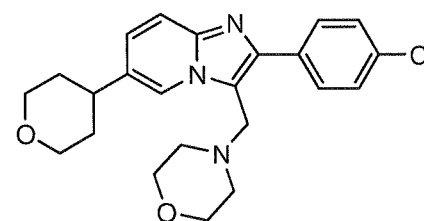
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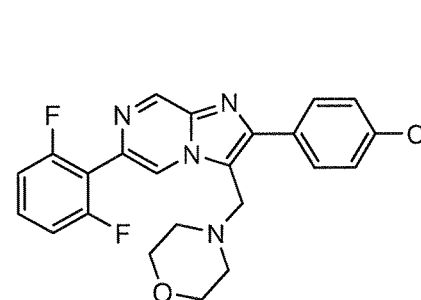
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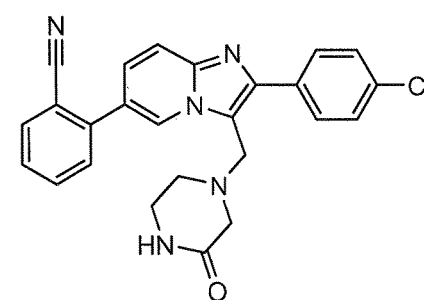
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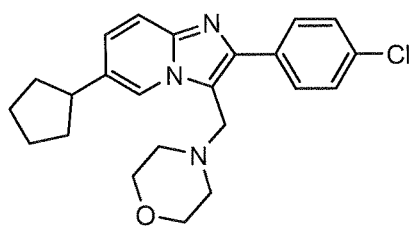
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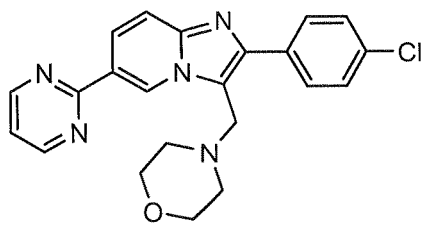
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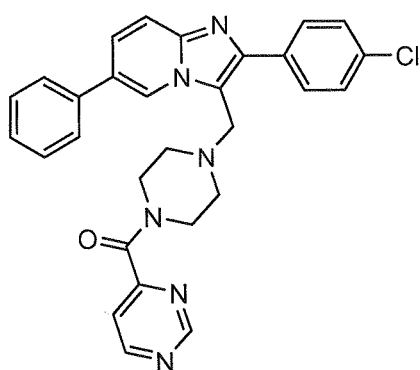
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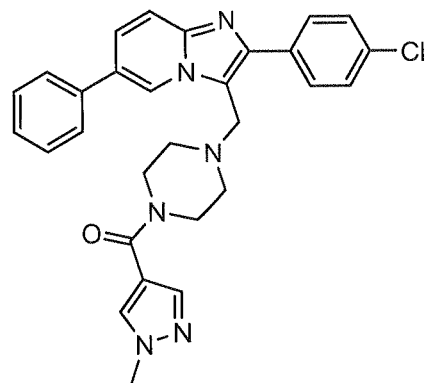
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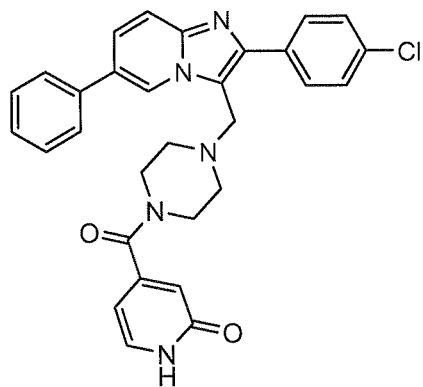
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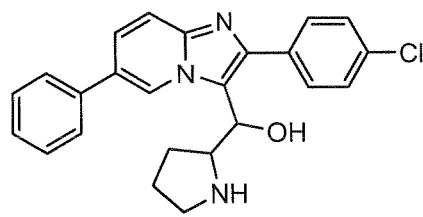
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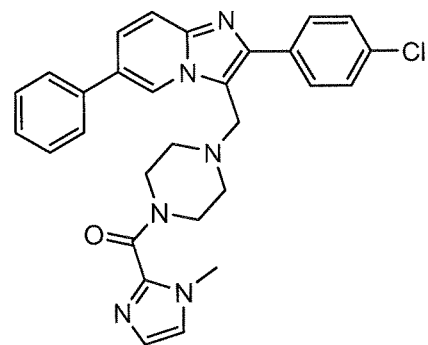
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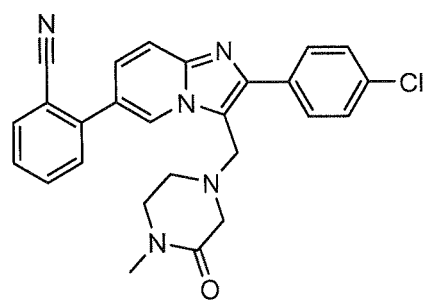
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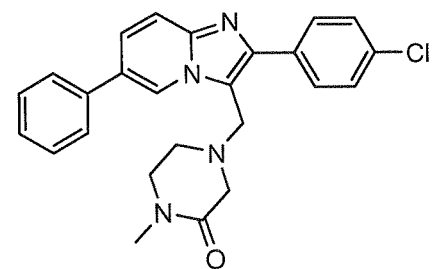
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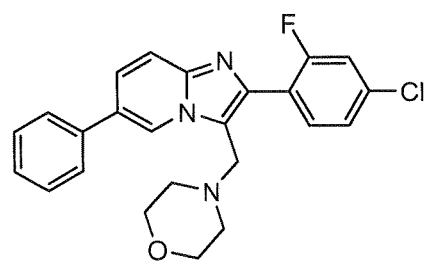
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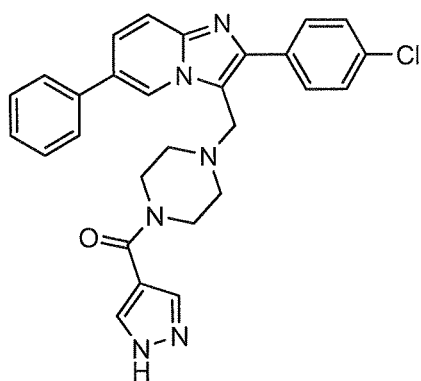
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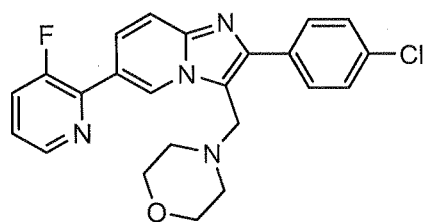
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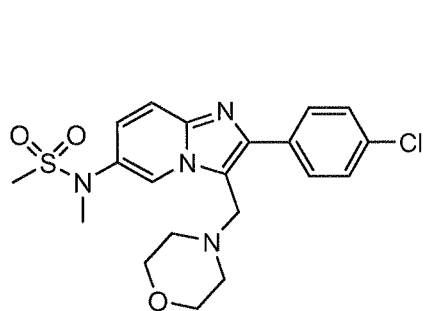
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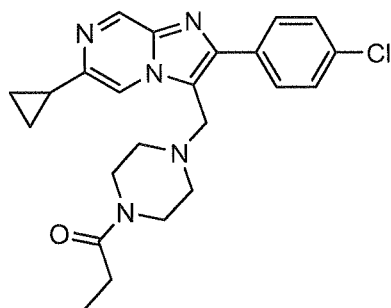
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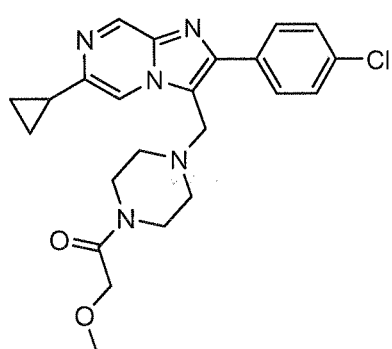
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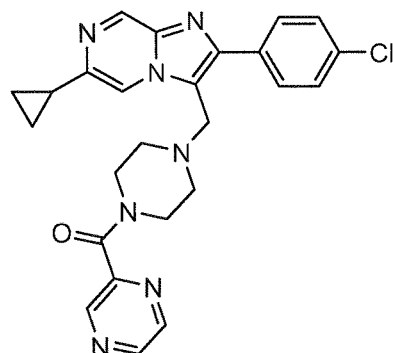
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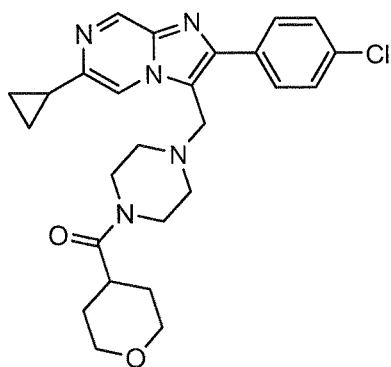
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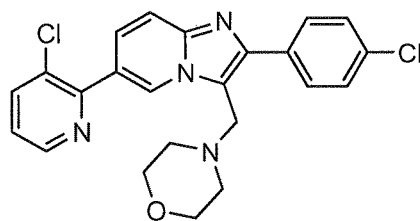
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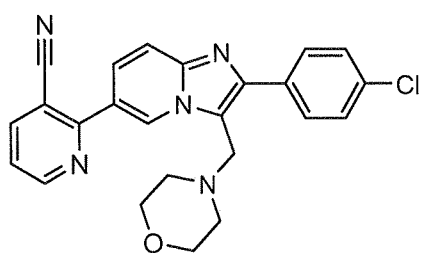
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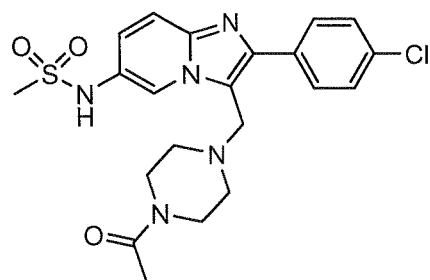
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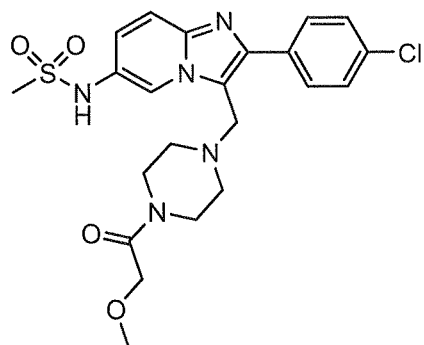
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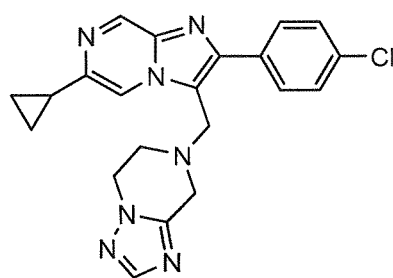
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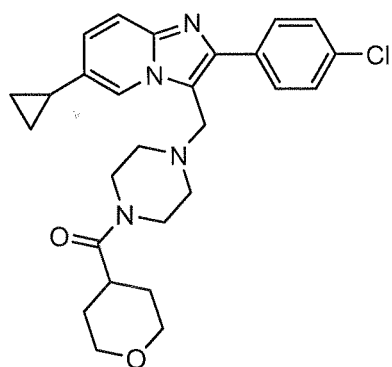
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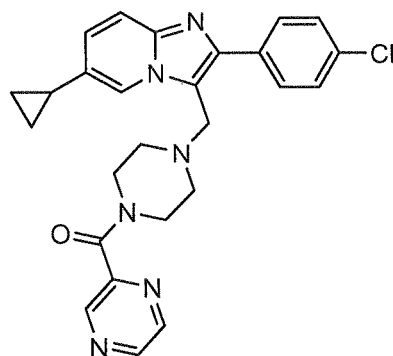
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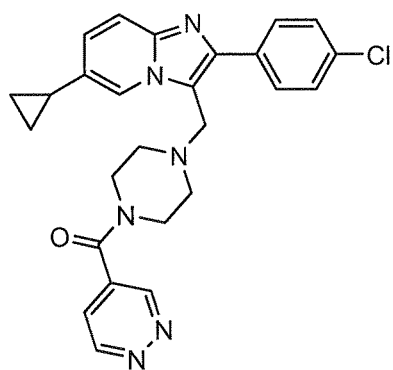
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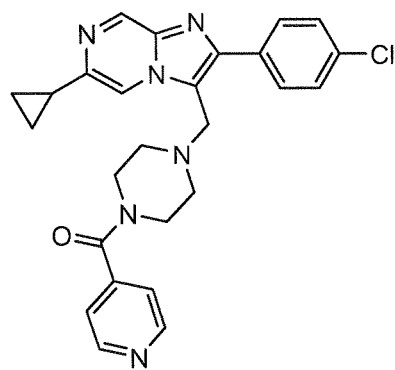
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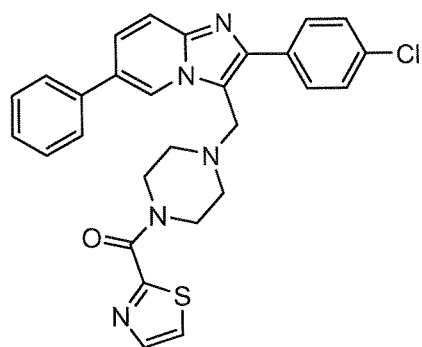
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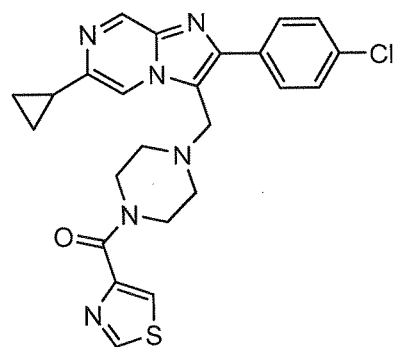
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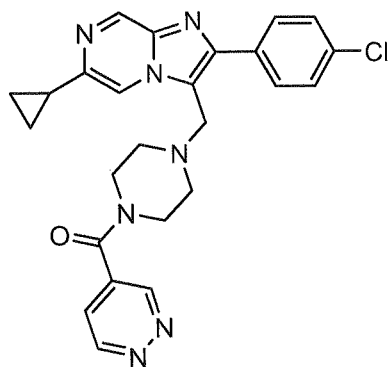
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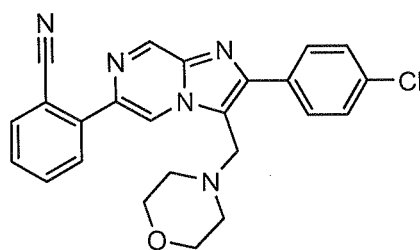
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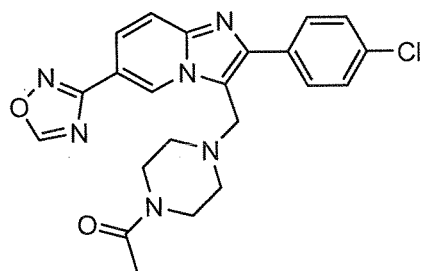
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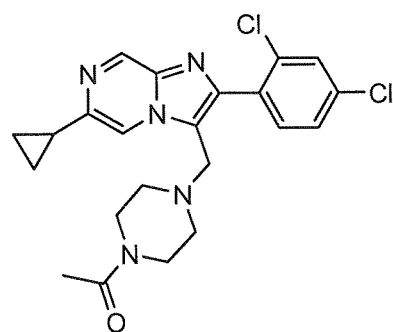
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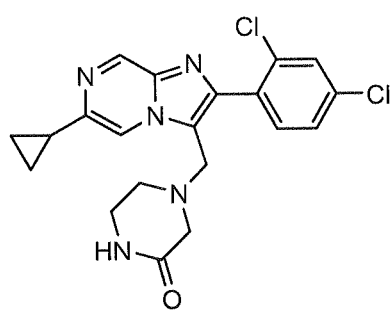
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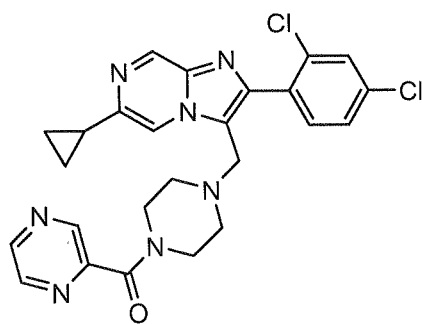
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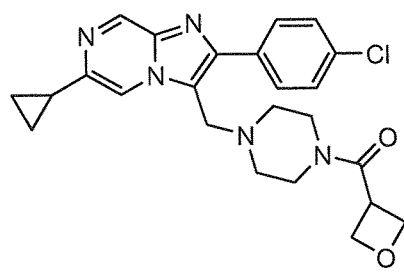
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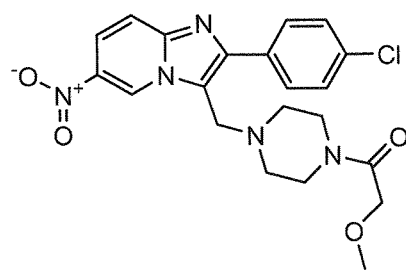
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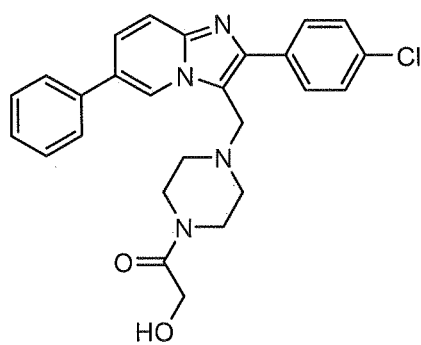
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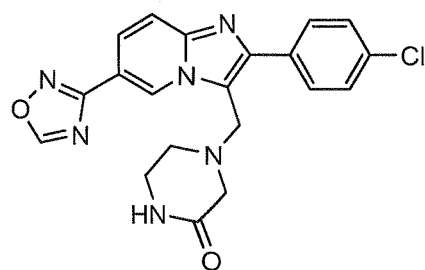
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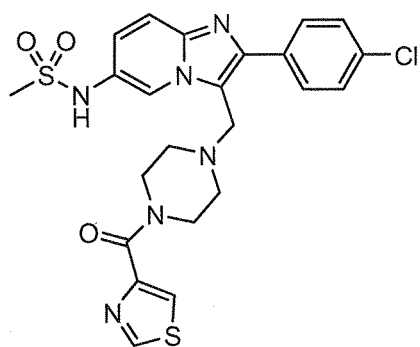
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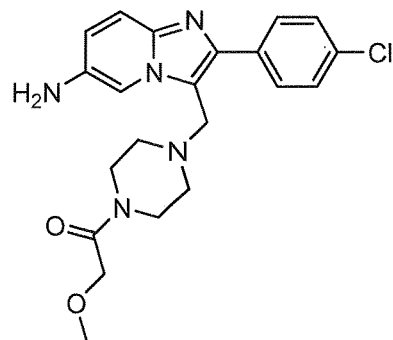
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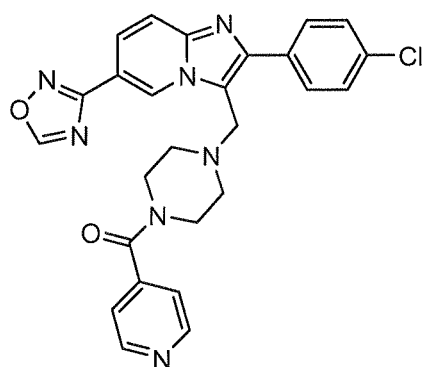
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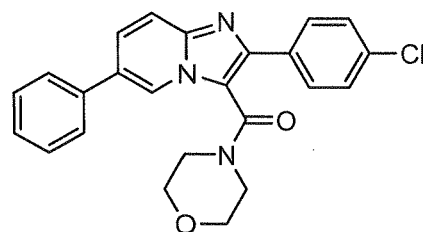
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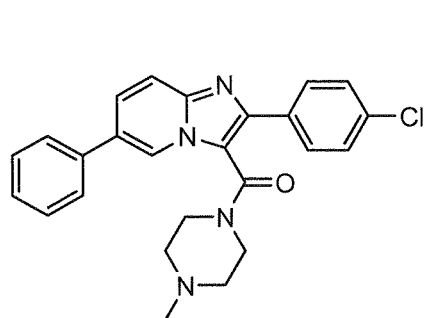
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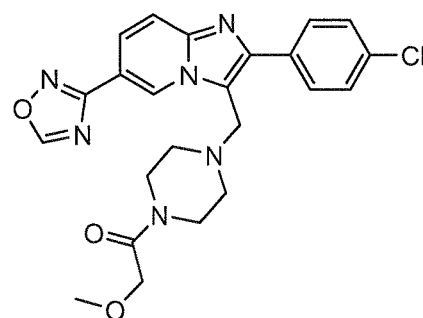
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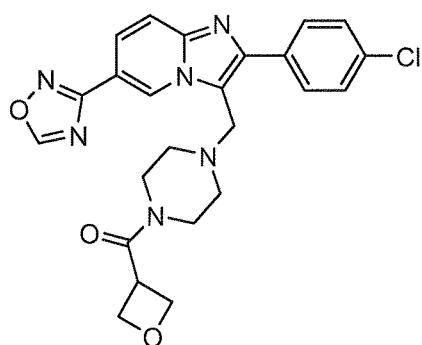
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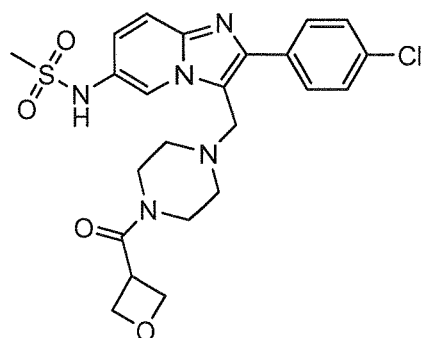
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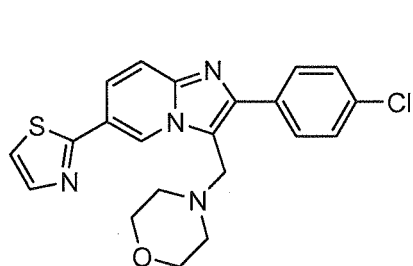
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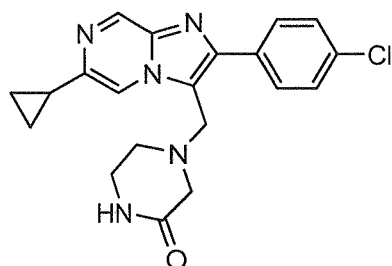
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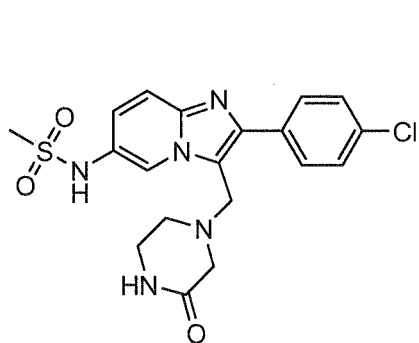
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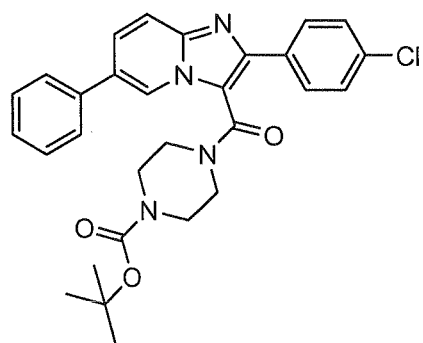
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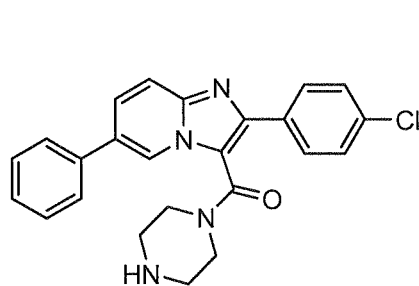
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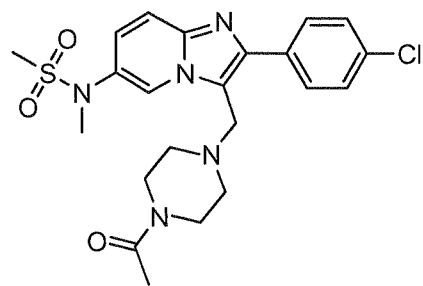
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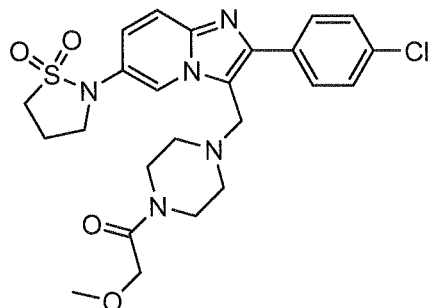
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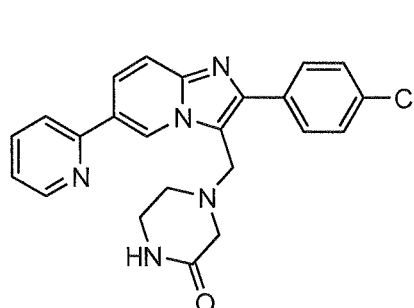
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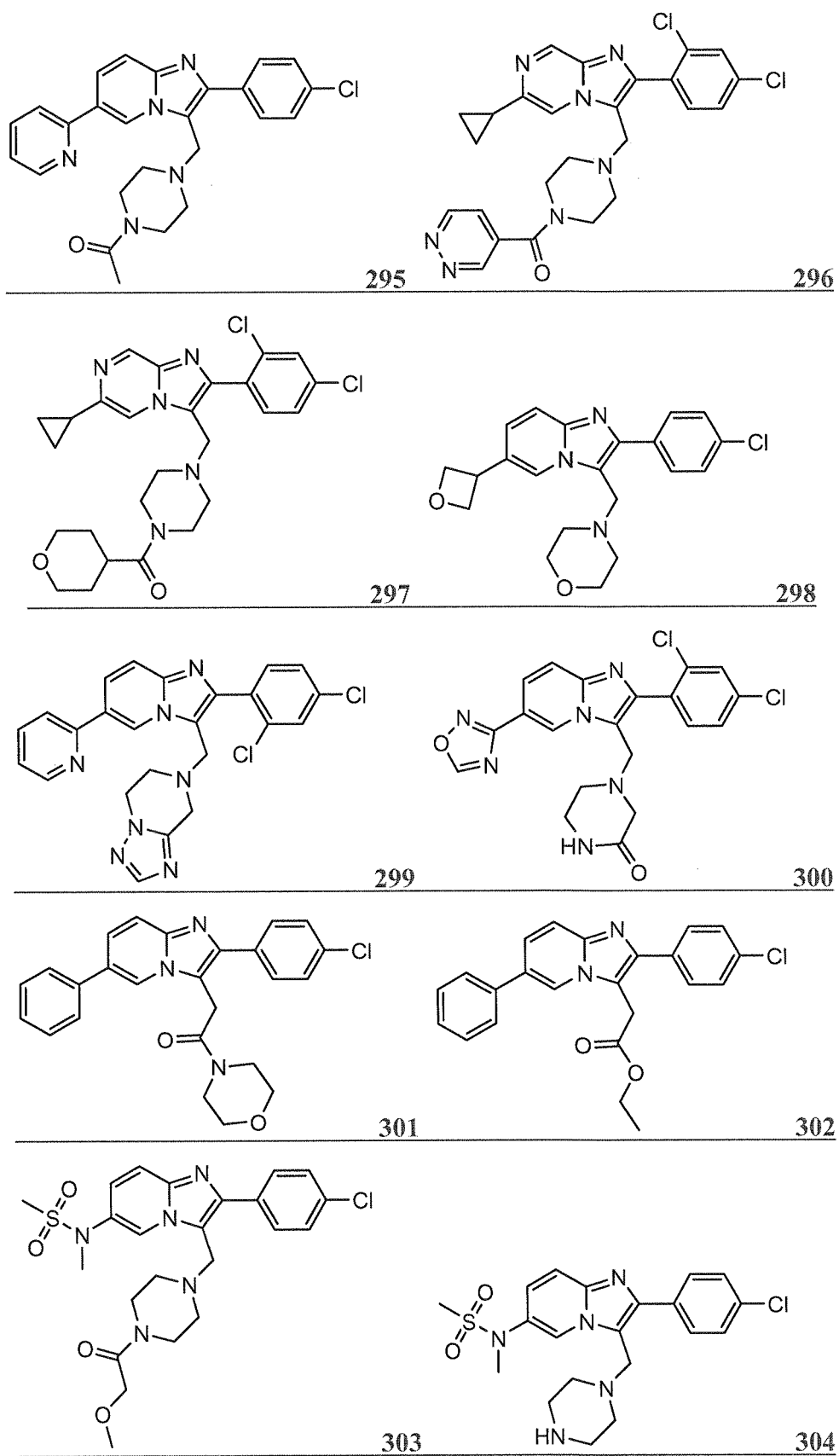
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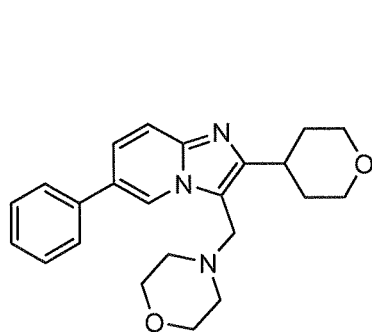


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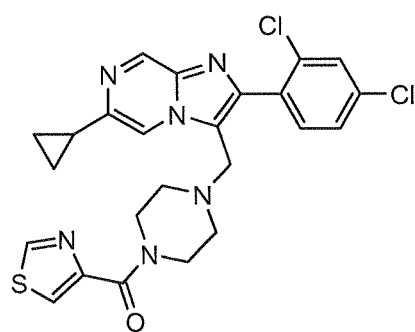


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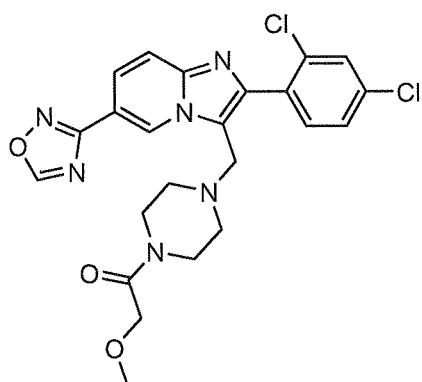




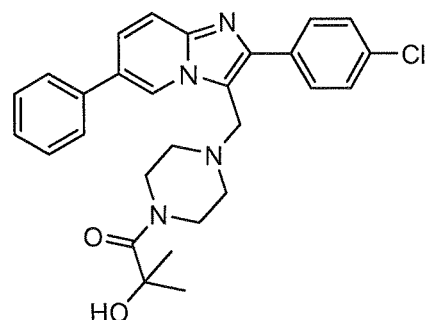
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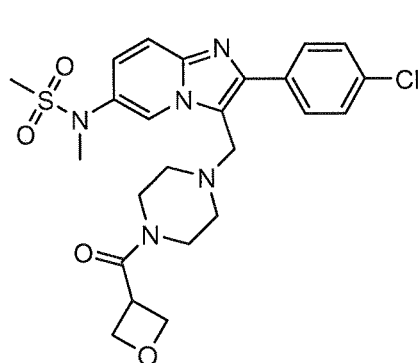
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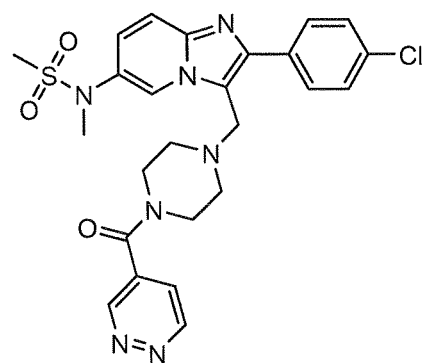
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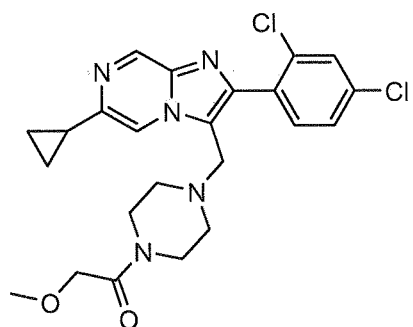
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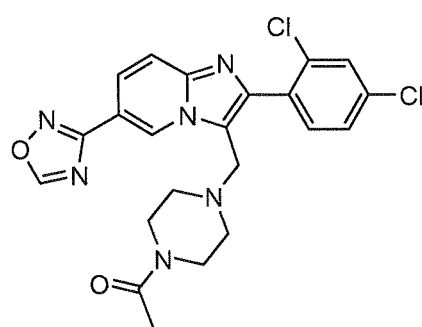
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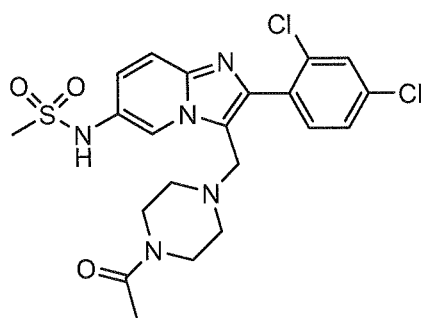
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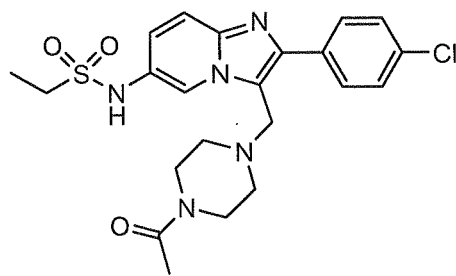
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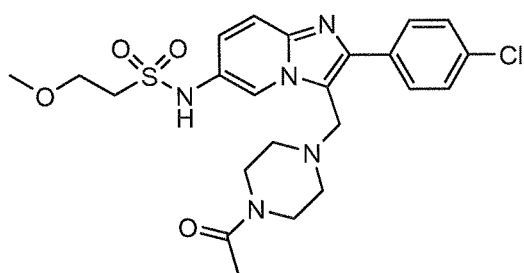
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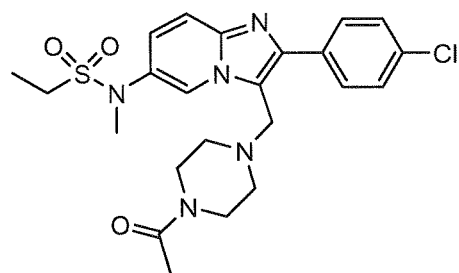
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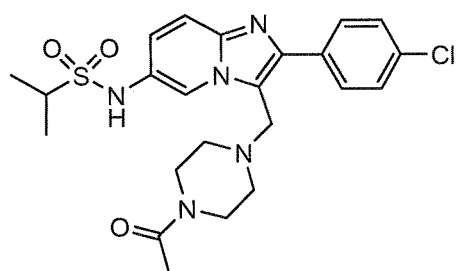
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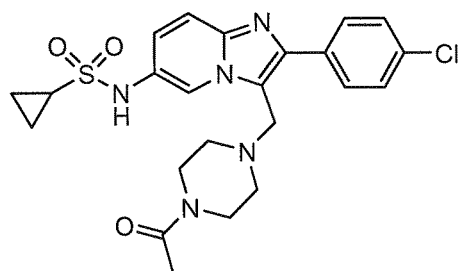
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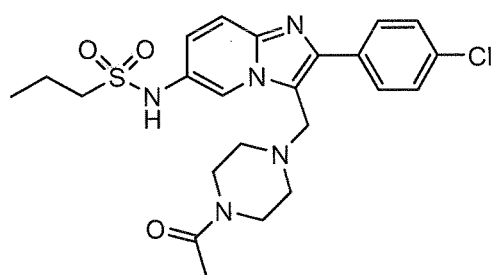
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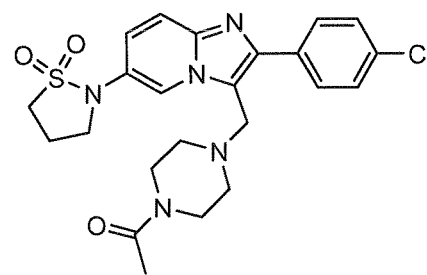
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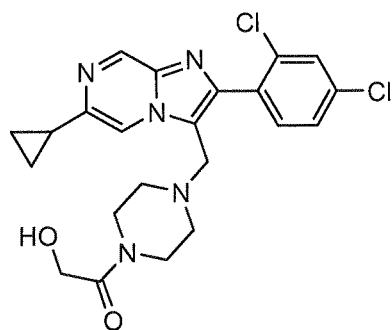
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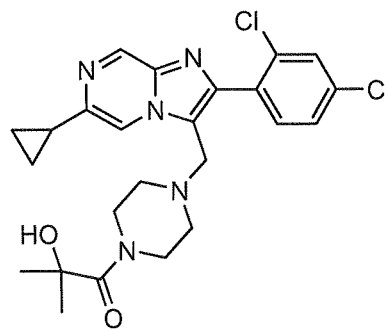
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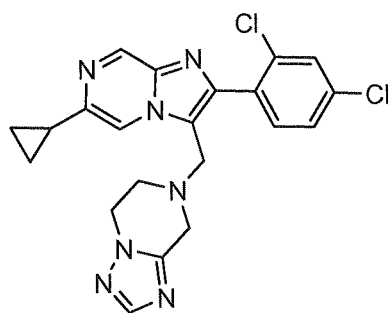
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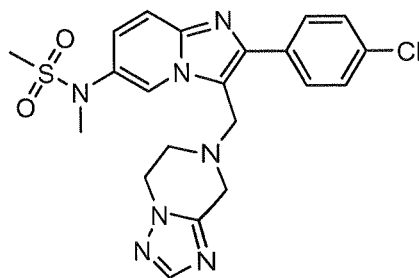
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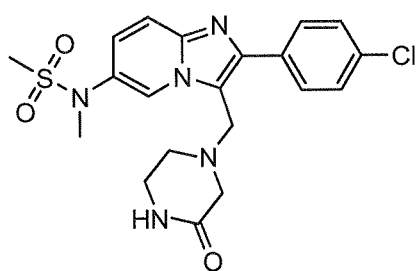
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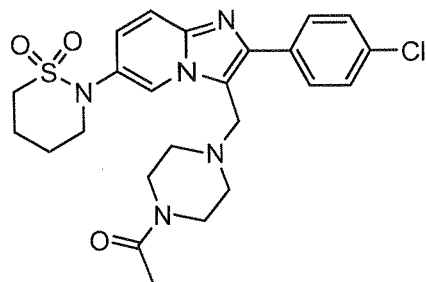
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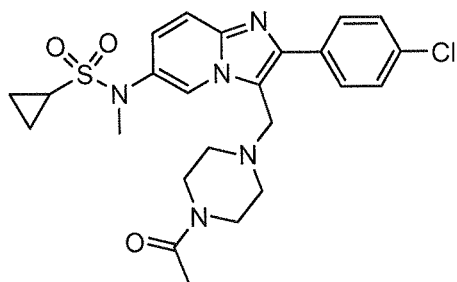
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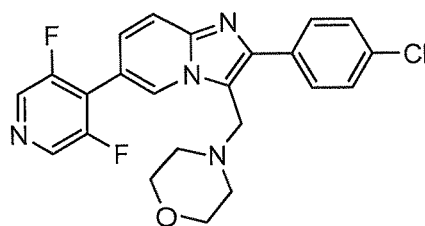
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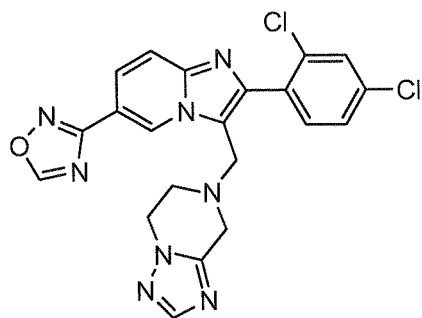
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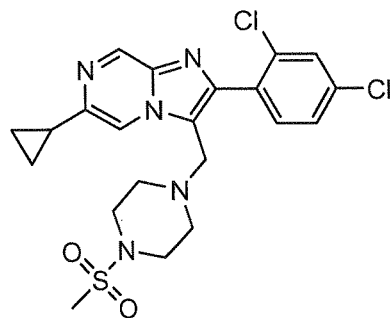
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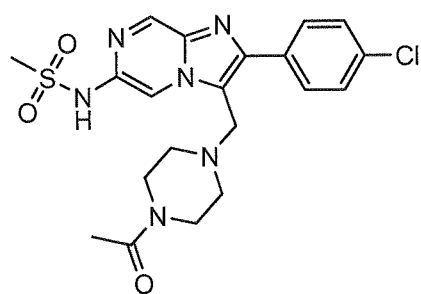
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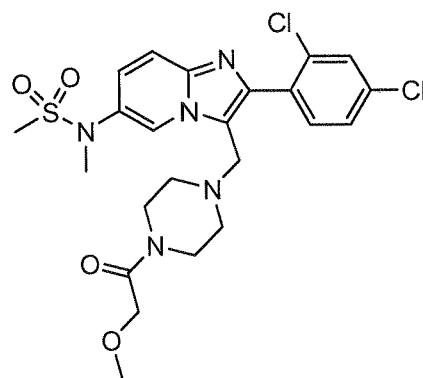
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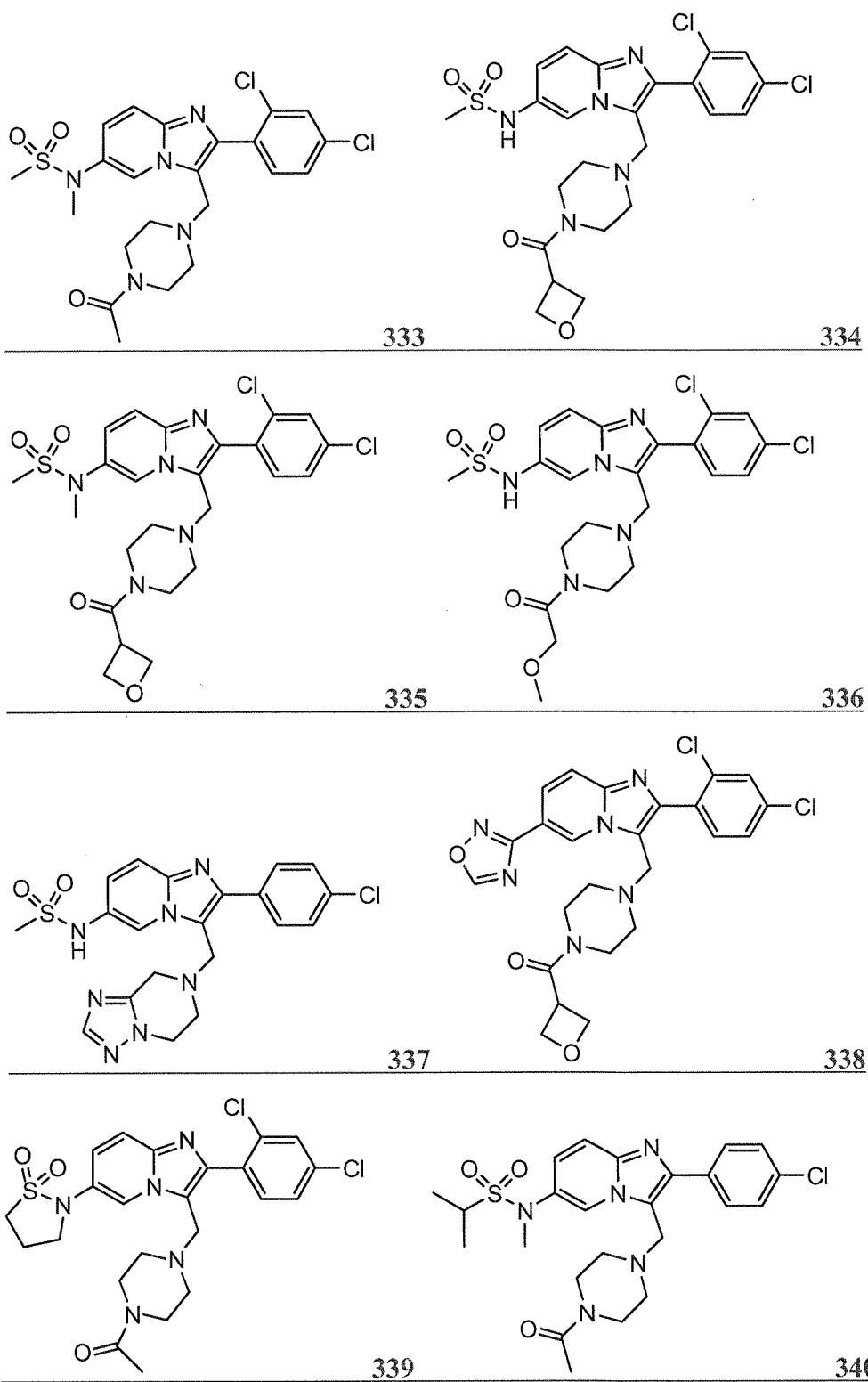
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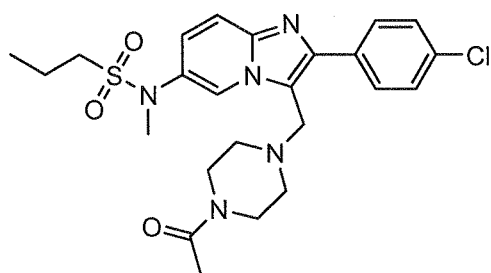


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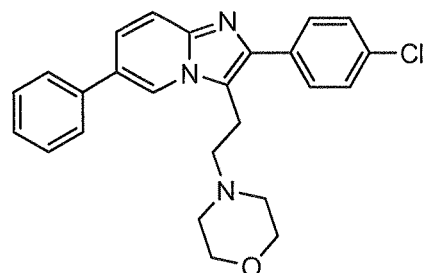


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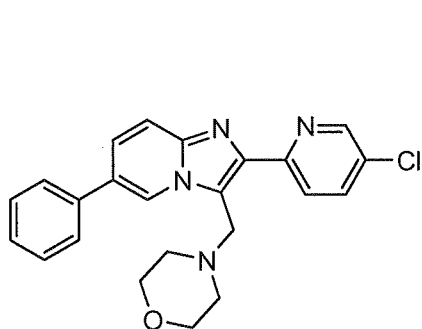




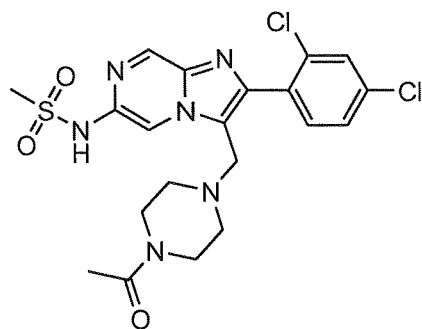
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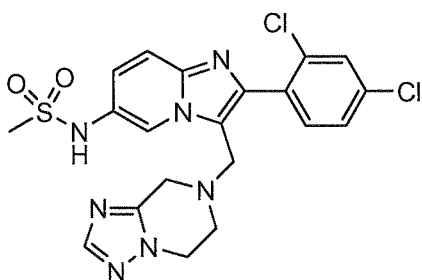
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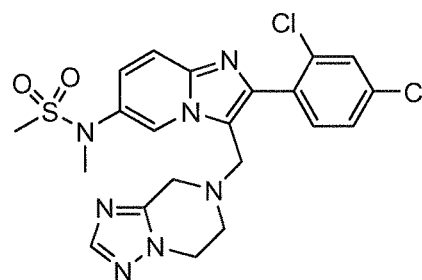
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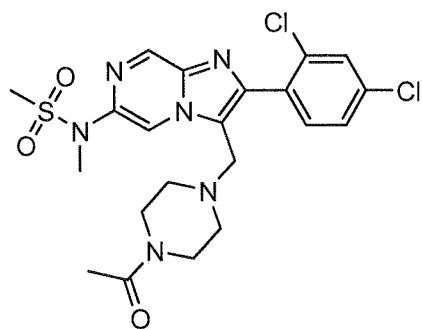
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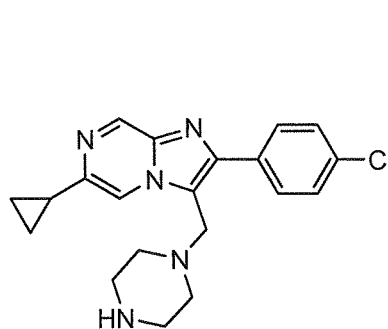
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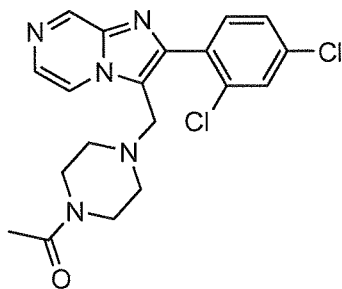
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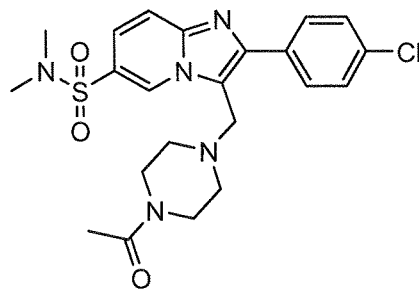
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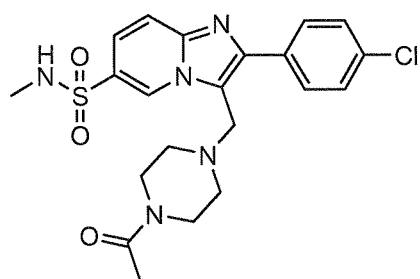
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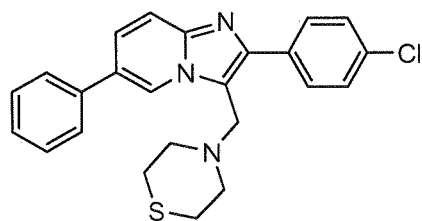
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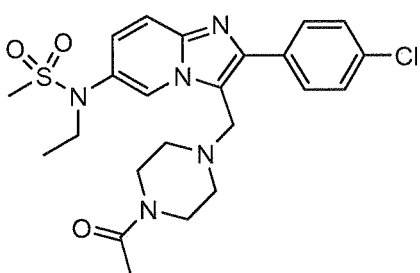
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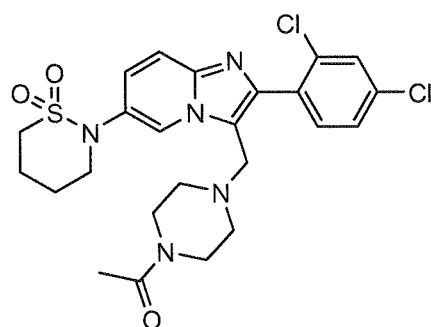
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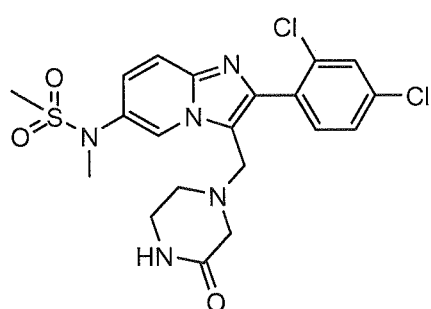
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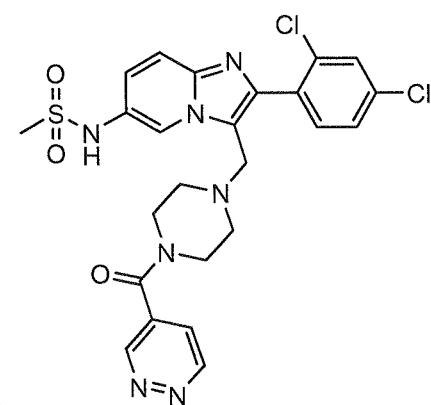
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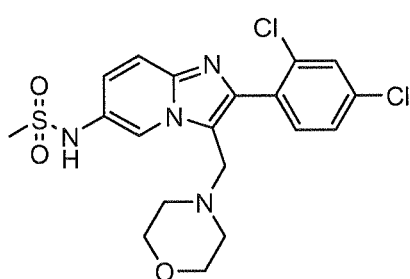
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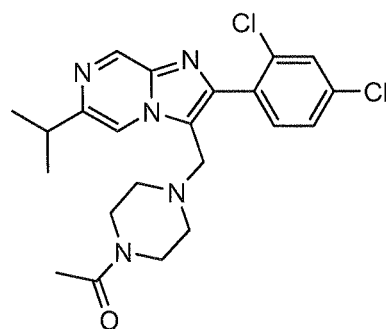
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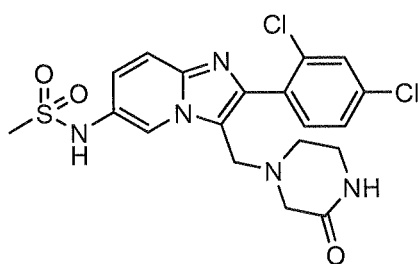
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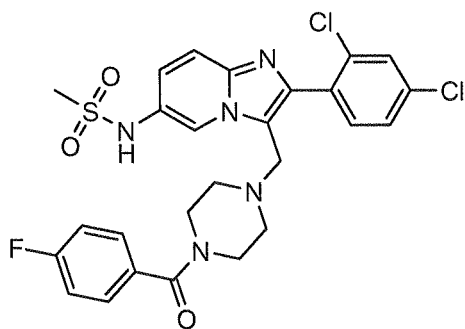
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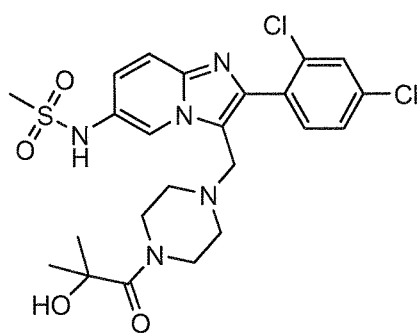
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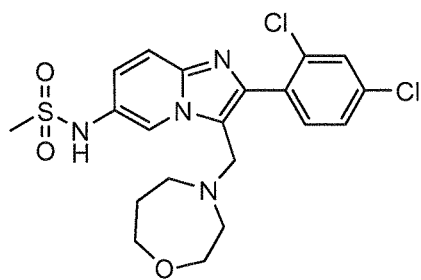
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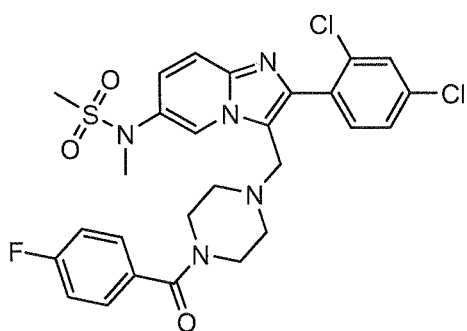
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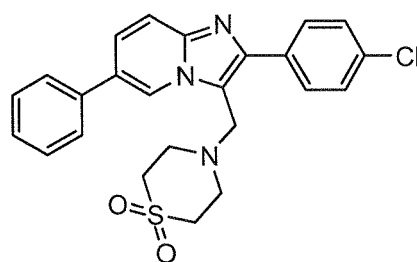
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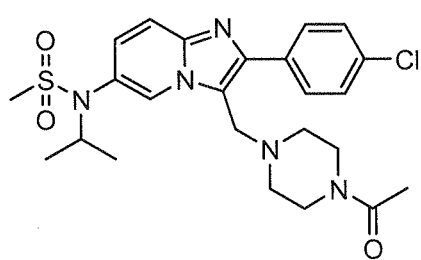
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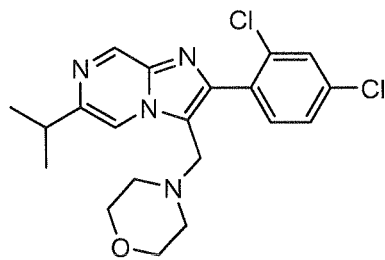
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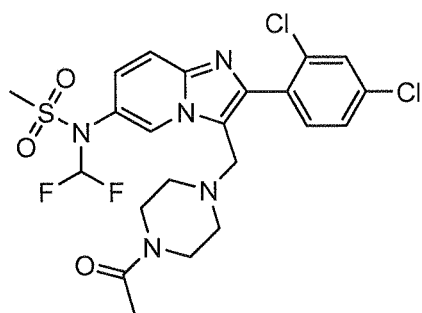
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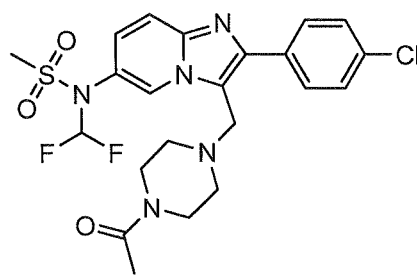
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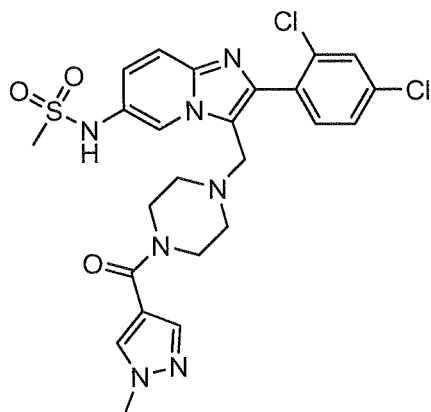
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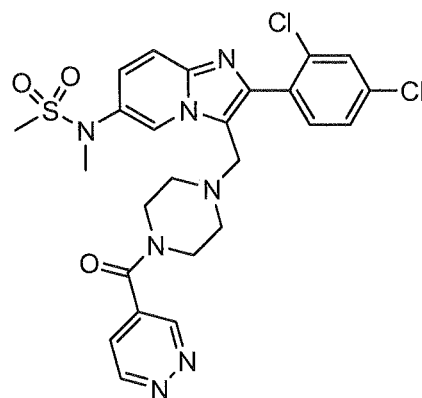
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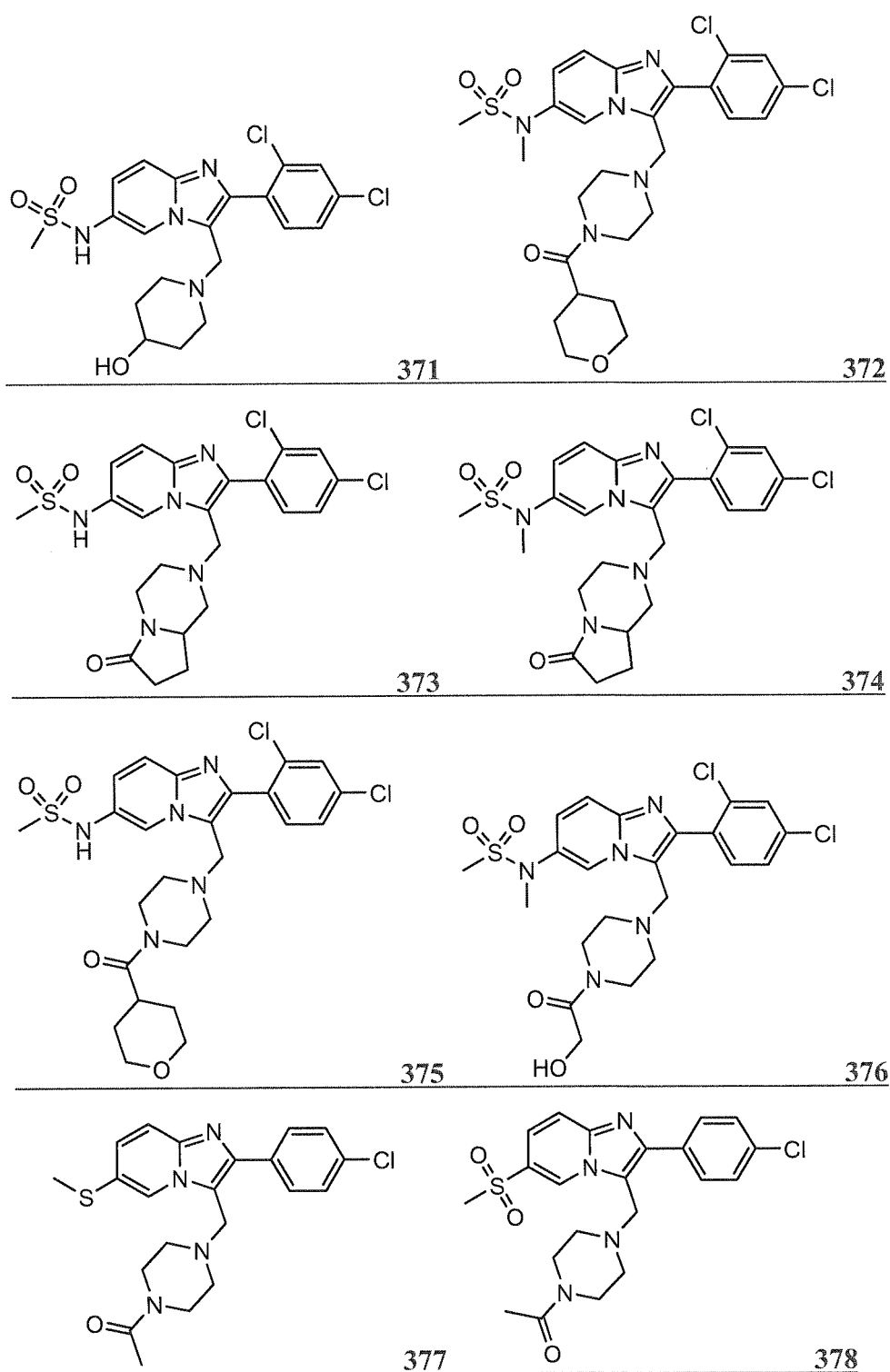
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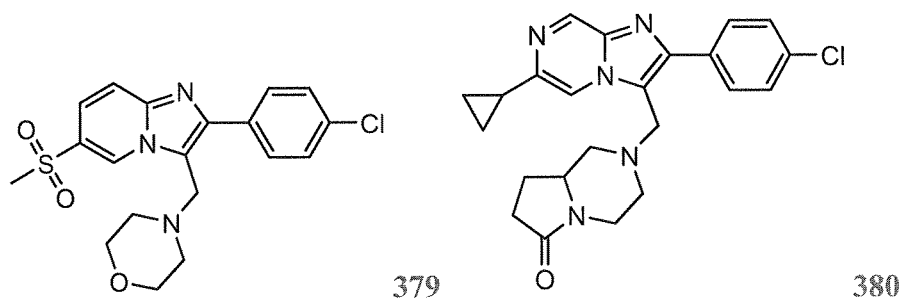
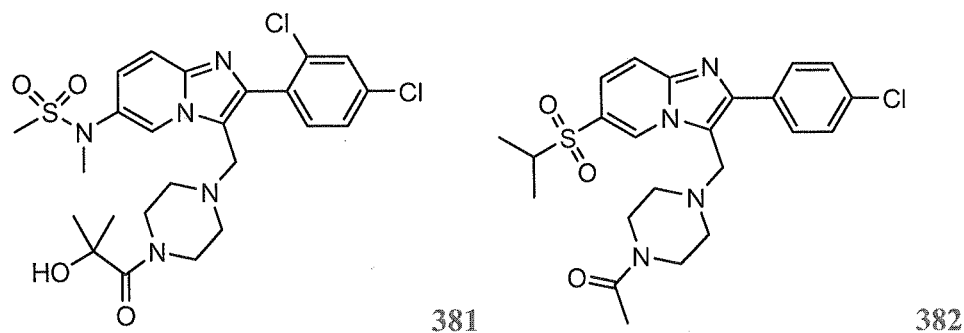
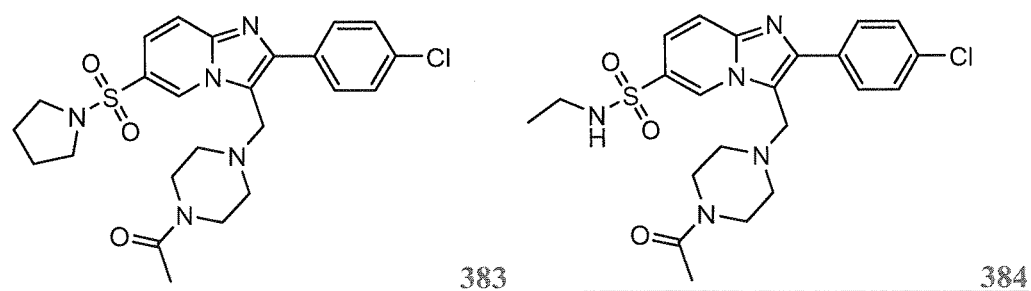
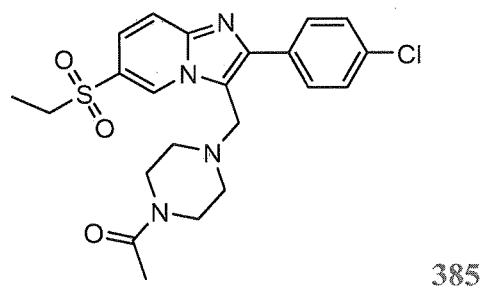


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According to another aspect, there is provided a method of synthesis of a compound as defined herein, which method comprises reacting a substituted or unsubstituted pyridine compound with a substituted or unsubstituted ketone compound in a ring forming step.

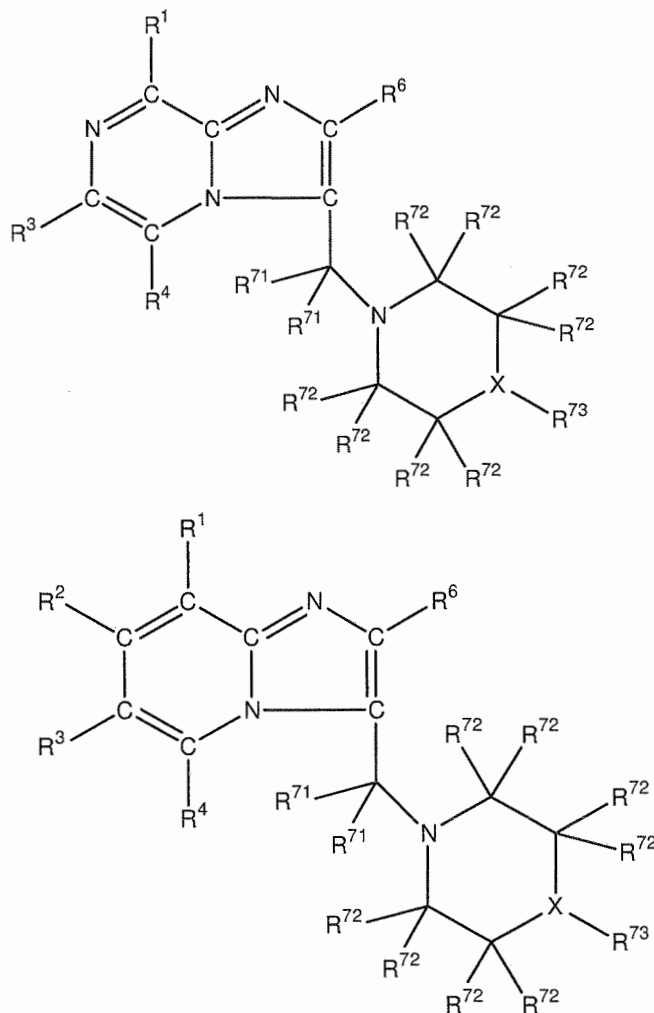
According to another aspect, there is provided a method for screening for a SLC2A class I transporter inhibitor compound having a structure as defined herein, which method comprises

- _____ (a) contacting a receptor having a SLC2A class I transporter function with a test compound;
- _____ (b) measuring the transport of a species across the receptor, which species is one whose transport is facilitated by a SLC2A class I transporter; and
- _____ (c) determining whether the test compound is a SLC2A class I transporter inhibitor from the measurements taken in step (b).

In the context of the present ~~invention~~disclosure, a compound is considered to be a SLC2A Class I transporter inhibitor if it is capable of reducing transport of a species (such as glucose) across an SLC2A Class I transporter receptor (such as GLUT1, GLUT2, GLUT3, GLUT4 and/or

CLAIMS:

1. An SLC2A class I transporter inhibitor compound for use in medicine, which compound comprises a formula selected from one of the following:



wherein R¹, R², R³, R⁴ and R⁶ may be the same or different and are independently selected from H and a substituted or unsubstituted organic group;

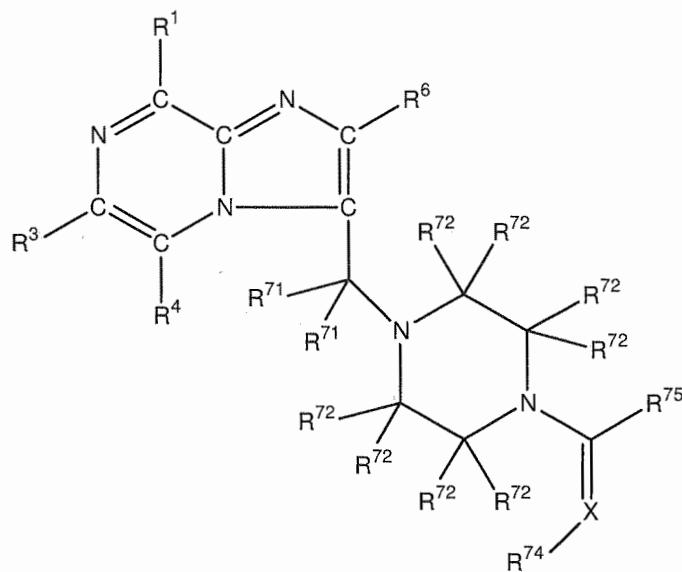
X is independently selected from N, O and S; each R⁷¹ and each R⁷² may be the same or different and are independently selected from H and a substituted or unsubstituted organic group; two R⁷¹ groups and/or two R⁷² groups may together form a carbonyl group; R⁷³ is absent when its X atom is O or S and may be the same or different as R⁷¹ and R⁷² and is independently selected from H and a substituted or unsubstituted organic group; and wherein

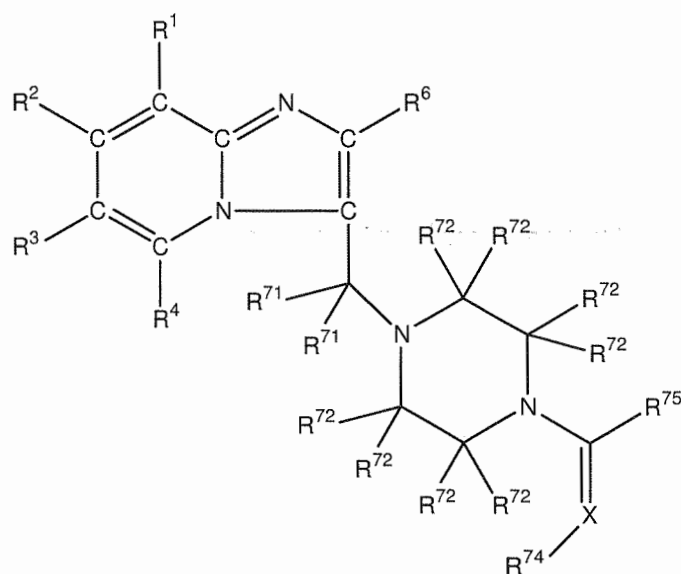
an R^{72} and R^{73} may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring.

2. A compound for use in medicine according to claim 1, wherein R^{73} comprises a substituted or unsubstituted group comprising a carbonyl group; and/or wherein R^1 is H, R^2 is H, R^4 is H or Me, R^3 is not H, R^6 is not H, each R^{71} is H, and each R^{72} is H.

3. A compound for use in medicine according to claim 1 or claim 2, wherein R^{73} comprises an unsubstituted or substituted acyl group; and/or wherein X is N; and/or wherein R^1 is H, R^2 is H, R^4 is H or Me, R^3 is not H, R^6 is not H, each R^{71} is H, and each R^{72} is H.

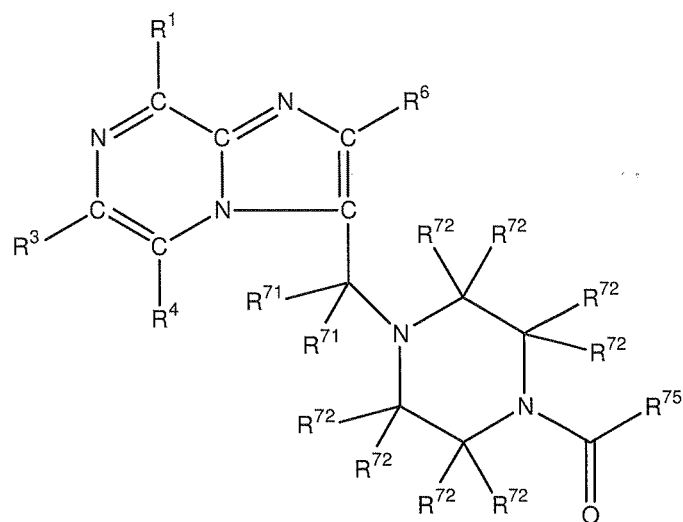
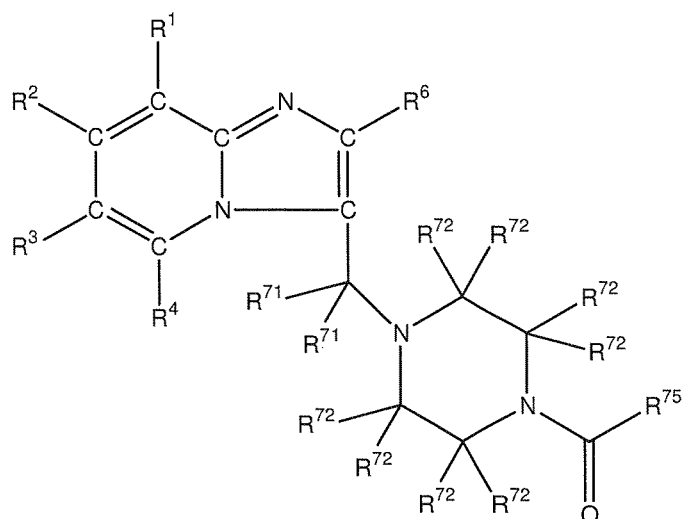
4. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:





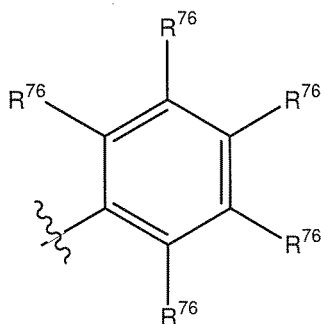
wherein X is independently selected from N, O and S; R^{74} is absent when X is O or S and is selected from H and a substituted or unsubstituted organic group when X is N; and R^{75} is selected from H and a substituted or unsubstituted organic group; preferably wherein X is O and/or R^{75} is a substituted or unsubstituted group selected from a linear or branched alkyl group, and an aliphatic or aromatic saturated or unsaturated homocyclic or heterocyclic ring such as a cycloalkyl group, a saturated or unsaturated heterocyclic group, and an aryl group; and/or preferably wherein R^1 is H, R^2 is H, R^4 is H or Me, R^3 is not H, R^6 is not H, each R^{71} is H, and each R^{72} is H.

5. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:



wherein R⁷⁵ is a substituted or unsubstituted organic group selected from: a linear or branched alkyl group, a cycloalkyl group, a saturated or unsaturated heterocyclic group, and an aryl group; preferably wherein R¹ is H, R² is H, R⁴ is H or Me, R³ is not H, R⁶ is not H, each R⁷¹ is H, each R⁷² is H;

preferably wherein R⁷⁵ is a group having the following structure:



wherein each R⁷⁶ may be the same or different and is independently selected from H and a substituted or unsubstituted organic group; preferably wherein R¹ is H, R² is H, R⁴ is H or Me, R³ is not H, R⁶ is not H, each R⁷¹ is H, each R⁷² is H, and at least one of R⁷⁶ is not H.

6. A compound for use in medicine according to any preceding claim, wherein R³ is H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);
- a linear or branched C₁-C₆ alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl); preferably a C₃-C₆ alkyl group (such as propyl (Pr), iso-propyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl);
- a linear or branched C₁-C₆ alkyl-aryl group (such as -CH₂Ph, -CH₂(2,3 or 4)F-Ph, -CH₂(2,3 or 4)Cl-Ph, -CH₂(2,3 or 4)Br-Ph, -CH₂(2,3 or 4)I-Ph, -CH₂CH₂Ph, -CH₂CH₂CH₂Ph, -CH₂CH₂CH₂CH₂Ph, -CH₂CH₂CH₂CH₂CH₂Ph, and -CH₂CH₂CH₂CH₂CH₂CH₂Ph);
- a linear or branched C₁-C₆ halogenated alkyl group (such as -CH₂F, -CH₂Cl, -CH₂Br, -CH₂I, -CF₃, -CCl₃, -CBr₃, -Cl₃, -CH₂CF₃, -CH₂CCl₃, -CH₂CBr₃, and -CH₂Cl₃);
- a linear or branched primary secondary or tertiary C₁-C₆ amine group (such as -NH₂, -NMeH, -NMe₂, -NEtH, -NEtMe, -NEt₂, -NPrH, -NPrMe, -NPrEt, -NPr₂, -NBuH, -NBuMe, -

NBuEt, $-\text{CH}_2\text{-NH}_2$, $-\text{CH}_2\text{-NMeH}$, $-\text{CH}_2\text{-NMe}_2$, $-\text{CH}_2\text{-NEtH}$, $-\text{CH}_2\text{-NEtMe}$, $-\text{CH}_2\text{-NEt}_2$, $-\text{CH}_2\text{-NPrH}$, $-\text{CH}_2\text{-NPrMe}$, and $-\text{CH}_2\text{-NPrEt}$);

- a amino-aryl group (such as $-\text{NH-Ph}$, $-\text{NH-(2,3 or 4)F-Ph}$, $-\text{NH-(2,3 or 4)Cl-Ph}$, $-\text{NH-(2,3 or 4)Br-Ph}$, $-\text{NH-(2,3 or 4)I-Ph}$, $-\text{NH-(2,3 or 4)Me-Ph}$, $-\text{NH-(2,3 or 4)Et-Ph}$, $-\text{NH-(2,3 or 4)Pr-Ph}$, $-\text{NH-(2,3 or 4)Bu-Ph}$, $-\text{NH-(2,3 or 4)OMe-Ph}$, $-\text{NH-(2,3 or 4)OEt-Ph}$, $-\text{NH-(2,3 or 4)OPr-Ph}$, $-\text{NH-(2,3 or 4)OBu-Ph}$, $-\text{NH-2,(3,4,5 or 6)F}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Cl}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Br}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)I}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Me}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Et}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Pr}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Bu}_2\text{-Ph}$;

- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);

- a cyclic $\text{C}_3\text{-C}_8$ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);

- a linear or branched $\text{C}_1\text{-C}_6$ alcohol group (such as $-\text{CH}_2\text{OH}$, $-\text{CH}_2\text{CH}_2\text{OH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$);

- a linear or branched $\text{C}_1\text{-C}_6$ carboxylic acid group (such as $-\text{COOH}$, $-\text{CH}_2\text{COOH}$, $-\text{CH}_2\text{CH}_2\text{COOH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$);

- a linear or branched carbonyl group (such as $-(\text{CO})\text{Me}$, $-(\text{CO})\text{Et}$, $-(\text{CO})\text{Pr}$, $-(\text{CO})\text{iPr}$, $-(\text{CO})\text{nBu}$, $-(\text{CO})\text{iBu}$, $-(\text{CO})\text{tBu}$, $-(\text{CO})\text{Ph}$, $-(\text{CO})\text{CH}_2\text{Ph}$, $-(\text{CO})\text{CH}_2\text{OH}$, $-(\text{CO})\text{CH}_2\text{OCH}_3$, $-(\text{CO})\text{CH}_2\text{NH}_2$, $-(\text{CO})\text{CH}_2\text{NHMe}$, $-(\text{CO})\text{CH}_2\text{NMe}_2$, $-(\text{CO})\text{-cyclopropyl}$, $-(\text{CO})\text{-1,3-epoxypropan-2-yl}$, $-(\text{CO})\text{NH}_2$, $-(\text{CO})\text{NHMe}$, $-(\text{CO})\text{NMe}_2$, $-(\text{CO})\text{NHEt}$, $-(\text{CO})\text{NEt}_2$, $-(\text{CO})\text{-pyrrolidine-N-yl}$, $-(\text{CO})\text{-morpholine-N-yl}$, $-(\text{CO})\text{-piperazine-N-yl}$, $-(\text{CO})\text{-N-methyl-piperazine-N-yl}$,

$-(\text{CO})\text{NHCH}_2\text{CH}_2\text{OH}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{OMe}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NH}_2$,
 $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NHMe}$, and $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NMe}_2$;

- a linear or branched $\text{C}_1\text{-C}_6$ carboxylic acid ester group (such as $-\text{COOMe}$, $-\text{COOEt}$, $-\text{COOPr}$, $-\text{COO-i-Pr}$, $-\text{COO-n-Bu}$, $-\text{COO-i-Bu}$, $-\text{COO-t-Bu}$, $-\text{CH}_2\text{COOMe}$, $-\text{CH}_2\text{CH}_2\text{COOMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{COOMe}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOMe}$);

- a linear or branched $\text{C}_1\text{-C}_6$ amide group (such as $-\text{CO-NH}_2$, $-\text{CO-NMeH}$, $-\text{CO-NMe}_2$, $-\text{CO-NEtH}$, $-\text{CO-NEtMe}$, $-\text{CO-NEt}_2$, $-\text{CO-NPrH}$, $-\text{CO-NPrMe}$, and $-\text{CO-NPrEt}$);

- a linear or branched $\text{C}_1\text{-C}_7$ amino carbonyl group (such as $-\text{NH-CO-Me}$, $-\text{NH-CO-Et}$, $-\text{NH-CO-Pr}$, $-\text{NH-CO-Bu}$, $-\text{NH-CO-pentyl}$, $-\text{NH-CO-hexyl}$, $-\text{NH-CO-Ph}$, $-\text{NMe-CO-Me}$, $-\text{NMe-CO-Et}$, $-\text{NMe-CO-Pr}$, $-\text{NMe-CO-Bu}$, $-\text{NMe-CO-pentyl}$, $-\text{NMe-CO-hexyl}$, $-\text{NMe-CO-Ph}$);

- a linear or branched $\text{C}_1\text{-C}_7$ alkoxy or aryloxy group (such as $-\text{OMe}$, $-\text{OEt}$, $-\text{OPr}$, $-\text{O-i-Pr}$, $-\text{O-n-Bu}$, $-\text{O-i-Bu}$, $-\text{O-t-Bu}$, $-\text{O-pentyl}$, $-\text{O-hexyl}$, $-\text{OCH}_2\text{F}$, $-\text{OCHF}_2$, $-\text{OCF}_3$, $-\text{OCH}_2\text{Cl}$, $-\text{OCHCl}_2$, $-\text{OCCl}_3$, $-\text{O-Ph}$, $-\text{O-CH}_2\text{-Ph}$, $-\text{O-CH}_2\text{-(2,3 or 4)-F-Ph}$, $-\text{O-CH}_2\text{-(2,3 or 4)-Cl-Ph}$, $-\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{OEt}$, $-\text{CH}_2\text{OPr}$, $-\text{CH}_2\text{OBu}$, $-\text{CH}_2\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$);

- a linear or branched aminoalkoxy group (such as $-\text{OCH}_2\text{NH}_2$, $-\text{OCH}_2\text{NHMe}$, $-\text{OCH}_2\text{NMe}_2$, $-\text{OCH}_2\text{NHEt}$, $-\text{OCH}_2\text{NEt}_2$, $-\text{OCH}_2\text{CH}_2\text{NH}_2$, $-\text{OCH}_2\text{CH}_2\text{NHMe}$, $-\text{OCH}_2\text{CH}_2\text{NMe}_2$, $-\text{OCH}_2\text{CH}_2\text{NHEt}$, and $-\text{OCH}_2\text{CH}_2\text{NEt}_2$);

- a sulphonyl group (such as $-\text{SO}_2\text{Me}$, $-\text{SO}_2\text{Et}$, $-\text{SO}_2\text{Pr}$, $-\text{SO}_2\text{iPr}$, $-\text{SO}_2\text{Ph}$, $-\text{SO}_2\text{-(2,3 or 4)-F-Ph}$, $-\text{SO}_2\text{-cyclopropyl}$, $-\text{SO}_2\text{CH}_2\text{CH}_2\text{OCH}_3$);

- a sulphonylamino group (such as $-\text{SO}_2\text{NH}_2$, $-\text{SO}_2\text{NHMe}$, $-\text{SO}_2\text{NMe}_2$, $-\text{SO}_2\text{NHEt}$, $-\text{SO}_2\text{NEt}_2$, $-\text{SO}_2\text{-pyrrolidine-N-yl}$, $-\text{SO}_2\text{-morpholine-N-yl}$, $-\text{SO}_2\text{NHCH}_2\text{OMe}$, and $-\text{SO}_2\text{NHCH}_2\text{CH}_2\text{OMe}$);

- an aminosulphonyl group (such as $\text{-NHSO}_2\text{Me}$, $\text{-NHSO}_2\text{Et}$, $\text{-NHSO}_2\text{Pr}$, $\text{-NHSO}_2\text{iPr}$, $\text{-NHSO}_2\text{Ph}$, $\text{-NHSO}_2\text{-(2,3 or 4)-F-Ph}$, $\text{-NHSO}_2\text{-cyclopropyl}$, $\text{-NHSO}_2\text{CH}_2\text{CH}_2\text{OCH}_3$);

- a cyclic aminosulphonyl- group (such as $\text{-N(SO}_2\text{)(CH}_2\text{)}_3$ and $\text{-N(SO}_2\text{)(CH}_2\text{)}_4$);

- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2- CF₃O-Ph-, 3- CF₃O-Ph-, and 4- CF₃O-Ph-); and

- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

preferably wherein R³ is selected from the following:

- an unsubstituted, 2-monosubstituted, or 2,6-disubstituted phenyl group, preferably where the substituent is selected from F, Cl and CN (such as Ph-, 2-F-Ph-, 2,6-F₂-Ph-, 2-Cl-Ph-, 2,6-Cl₂-Ph-, 2-CN-Ph-, 2,6-(CN)₂-Ph-, 2,6-F,CN-Ph-, 2,6-F,Cl-Ph-, and 2,6-Cl,CN-Ph-);
- an unsubstituted or 3-monosubstituted pyridine-2-yl, or a 2,6-disubstituted pyridine-4-yl group, preferably where the substituent is selected from F, Cl and CN (such as Pyr-2-yl, Pyr-3-yl, Pyr-4-yl, 3-F-Pyr-2-yl, 3-Cl-Pyr-2-yl, 3-CN-Pyr-2-yl, 2,6-F₂-Pyr-4-yl, 2,6-Cl₂-Pyr-4-yl and 2,6-(CN)₂-Pyr-4-yl);
- an unsubstituted or 4-substituted pyrid-1,2-azine-3-yl group, preferably where the substituent is selected from F, Cl and CN (such as pyridazine-3-yl, 4-F-pyridazine-3-yl, 4-Cl-pyridazine-3-yl, and 4-CN-pyridazine-3-yl);
- a substituted or unsubstituted 1,2,4-oxadiazol-3-yl group;
- a cyclic aminosulphonyl- group (such as -N(SO₂)(CH₂)₃ and -N(SO₂)(CH₂)₄);
- a linear or branched aminosulphonyl group (such as -NH-SO₂-Me, -NH-SO₂-Et, -NH-SO₂-iPr, -NH-SO₂-cycloPr, -NH-SO₂-Pr, -NH-SO₂-EtOMe, -NMe-SO₂-Me, -NMe-SO₂-Et, -NMe-SO₂-iPr, -NMe-SO₂-cycloPr, -NMe-SO₂-Pr, -NMe-SO₂-EtOMe, -NEt-SO₂-Me, -NEt-SO₂-Et, -NEt-SO₂-iPr, -NEt-SO₂-cycloPr, -NEt-SO₂-Pr, -NEt-SO₂-EtOMe, -NiPr-SO₂-Me, -NiPr-SO₂-Et, -NiPr-SO₂-iPr, -NiPr-SO₂-cycloPr, -NiPr-SO₂-Pr, -NiPr-SO₂-EtOMe, -N(CHF₂)-SO₂-Me, -N(CHF₂)-SO₂-Et, -N(CHF₂)-SO₂-iPr, -N(CHF₂)-SO₂-cycloPr, -N(CHF₂)-SO₂-Pr, and -N(CHF₂)-SO₂-EtOMe);
- a linear or branched sulphonylamino group (such as -SO₂-NH₂, -SO₂-NHMe, -SO₂-NHEt, -SO₂-NMe₂, -SO₂-NMeEt, -SO₂-NHEt₂, and -SO₂-pyrrolidin-N-yl);
- a linear or branched sulphonyl group (such as -SO₂Me, -SO₂Et, -SO₂Pr, -SO₂iPr);
- a thioether group (such as -SMe, -SEt, -SPr, and SiPr); and

- an isopropyl, cyclopropyl and a propen-2-yl group;

7. A compound for use in medicine according to any preceding claim, wherein R⁶ is H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);

- a linear or branched C₁-C₆ alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl).

- a linear or branched C₁-C₆ alkyl-aryl group (such as -CH₂Ph, -CH₂(2,3 or 4)F-Ph, -CH₂(2,3 or 4)Cl-Ph, -CH₂(2,3 or 4)Br-Ph, -CH₂(2,3 or 4)I-Ph, -CH₂CH₂Ph, -CH₂CH₂CH₂Ph, -CH₂CH₂CH₂CH₂Ph, -CH₂CH₂CH₂CH₂CH₂Ph, and -CH₂CH₂CH₂CH₂CH₂CH₂Ph);

- a linear or branched C₁-C₆ halogenated alkyl group (such as -CH₂F, -CH₂Cl, -CH₂Br, -CH₂I, -CF₃, -CCl₃, -CBr₃, -CI₃, -CH₂CF₃, -CH₂CCl₃, -CH₂CBr₃, and -CH₂CI₃);

- a linear or branched primary secondary or tertiary C₁-C₆ amine group (such as -NH₂, -NMeH, -NMe₂, -NEtH, -NEtMe, -NEt₂, -NPrH, -NPrMe, -NPrEt, -NPr₂, -NBuH, -NBuMe, -NBuEt, -CH₂-NH₂, -CH₂-NMeH, -CH₂-NMe₂, -CH₂-NEtH, -CH₂-NEtMe, -CH₂-NEt₂, -CH₂-NPrH, -CH₂-NPrMe, and -CH₂-NPrEt);

- a amino-aryl group (such as -NH-Ph, -NH-(2,3 or 4)F-Ph, -NH-(2,3 or 4)Cl-Ph, -NH-(2,3 or 4)Br-Ph, -NH-(2,3 or 4)I-Ph, -NH-(2,3 or 4)Me-Ph, -NH-(2,3 or 4)Et-Ph, -NH-(2,3 or 4)Pr-Ph, -NH-(2,3 or 4)Bu-Ph, -NH-(2,3 or 4)OMe-Ph, -NH-(2,3 or 4)OEt-Ph, -NH-(2,3 or 4)OPr-Ph, -NH-(2,3 or 4)OBu-Ph, -NH-2,(3,4,5 or 6)F₂-Ph, -NH-2,(3,4,5 or 6)Cl₂-Ph, -NH-2,(3,4,5 or 6)Br₂-Ph, -NH-2,(3,4,5 or 6)I₂-Ph, -NH-2,(3,4,5 or 6)Me₂-Ph, -NH-2,(3,4,5 or 6)Et₂-Ph, -NH-2,(3,4,5 or 6)Pr₂-Ph, -NH-2,(3,4,5 or 6)Bu₂-Ph;

- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl,

morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);

- a cyclic C₃-C₈ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);

- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);

- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);

- a linear or branched carbonyl group (such as -(CO)Me, -(CO)Et, -(CO)Pr, -(CO)iPr, -(CO)nBu, -(CO)iBu, -(CO)tBu, -(CO)Ph, -(CO)CH₂Ph, -(CO)CH₂OH, -(CO)CH₂OCH₃, -(CO)CH₂NH₂, -(CO)CH₂NHMe, -(CO)CH₂NMe₂, -(CO)-cyclopropyl, -(CO)-1,3-epoxypropan-2-yl; -(CO)NH₂, -(CO)NHMe, -(CO)NMe₂, -(CO)NHEt, -(CO)NEt₂, -(CO)-pyrrolidine-N-yl, -(CO)-morpholine-N-yl, -(CO)-piperazine-N-yl, -(CO)-N-methyl-piperazine-N-yl, -(CO)NHCH₂CH₂OH, -(CO)NHCH₂CH₂OMe, -(CO)NHCH₂CH₂NH₂, -(CO)NHCH₂CH₂NHMe, and -(CO)NHCH₂CH₂NMe₂;

- a linear or branched C₁-C₆ carboxylic acid ester group (such as -COOMe, -COOEt, -COOPr, -COO-i-Pr, -COO-n-Bu, -COO-i-Bu, -COO-t-Bu, -CH₂COOMe, -CH₂CH₂COOMe, -CH₂CH₂CH₂COOMe, and -CH₂CH₂CH₂CH₂COOMe);

- a linear or branched C₁-C₆ amide group (such as -CO-NH₂, -CO-NMeH, -CO-NMe₂, -CO-NEtH, -CO-NEtMe, -CO-NEt₂, -CO-NPrH, -CO-NPrMe, and -CO-NPrEt);

- a linear or branched C₁-C₇ amino carbonyl group (such as -NH-CO-Me, -NH-CO-Et, -NH-CO-Pr, -NH-CO-Bu, -NH-CO-pentyl, -NH-CO-hexyl, -NH-CO-Ph, -NMe-CO-Me, -NMe-CO-Et, -NMe-CO-Pr, -NMe-CO-Bu, -NMe-CO-pentyl, -NMe-CO-hexyl, -NMe-CO-Ph;
- a linear or branched C₁-C₇ alkoxy or aryloxy group (such as -OMe, -OEt, -OPr, -O-i-Pr, -O-n-Bu, -O-i-Bu, -O-t-Bu, -O-pentyl, -O-hexyl, -OCH₂F, -OCHF₂, -OCF₃, -OCH₂Cl, -OCHCl₂, -OCCl₃, -O-Ph, -O-CH₂-Ph, -O-CH₂-(2,3 or 4)-F-Ph, -O-CH₂-(2,3 or 4)-Cl-Ph, -CH₂OMe, -CH₂OEt, -CH₂OPr, -CH₂OBu, -CH₂CH₂OMe, -CH₂CH₂CH₂OMe, -CH₂CH₂CH₂CH₂OMe, and -CH₂CH₂CH₂CH₂CH₂OMe);
- a linear or branched aminoalkoxy group (such as -OCH₂NH₂, -OCH₂NHMe, -OCH₂NMe₂, -OCH₂NHEt, -OCH₂NEt₂, -OCH₂CH₂NH₂, -OCH₂CH₂NHMe, -OCH₂CH₂NMe₂, -OCH₂CH₂NHEt, and -OCH₂CH₂NEt₂;
- a sulphonyl group (such as -SO₂Me, -SO₂Et, -SO₂Pr, -SO₂iPr, -SO₂Ph, -SO₂-(2,3 or 4)-F-Ph, -SO₂-cyclopropyl, -SO₂CH₂CH₂OCH₃;
- a sulphonylamino group (such as -SO₂NH₂, -SO₂NHMe, -SO₂NMe₂, -SO₂NHEt, -SO₂NEt₂, -SO₂-pyrrolidine-N-yl, -SO₂-morpholine-N-yl, -SO₂NHCH₂OMe, and -SO₂NHCH₂CH₂OMe);
- an aminosulphonyl group (such as -NHSO₂Me, -NHSO₂Et, -NHSO₂Pr, -NHSO₂iPr, -NHSO₂Ph, -NHSO₂-(2,3 or 4)-F-Ph, -NHSO₂-cyclopropyl, -NHSO₂CH₂CH₂OCH₃);
- a cyclic aminosulphonyl- group (such as -N(SO₂)(CH₂)₃ and -N(SO₂)(CH₂)₄);
- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-,

3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and

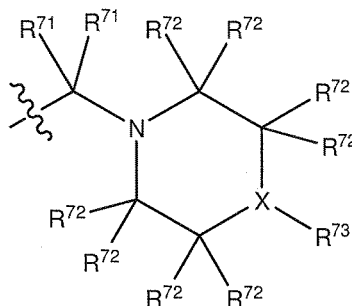
- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

preferably wherein R⁶ comprises - an aromatic group selected from Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-,

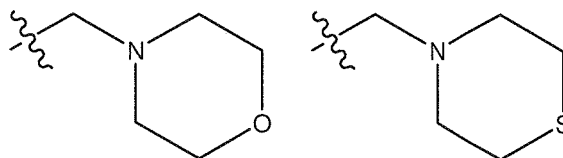
particularly preferably wherein R⁶ is selected from the following:

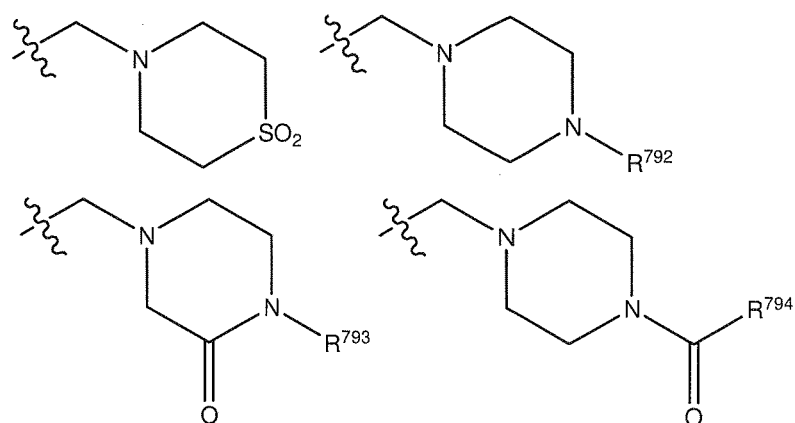
- an unsubstituted, 2,3- or 4-monosubstituted, and a 2,4 or 3,4-disubstituted phenyl group, preferably wherein the substituent is F, Cl or -OMe (such as 2-F-Ph, 2-Cl-Ph, 2-OMe-Ph, 3-F-Ph, 3-Cl-Ph, 3-OMe-Ph, 4-F-Ph, 4-Cl-Ph, 4-OMe-Ph, 2,4-F₂-Ph, 2,4-Cl₂-Ph, 2,4-(OMe)₂-Ph, 3,4-F₂-Ph, 3,4-Cl₂-Ph, and 3,4-(OMe)₂-Ph);
- a substituted or unsubstituted pyridine-2-yl, pyridine-3-yl or pyridine-4-yl group preferably wherein the substituent is F or Cl (such as pyridine-2-yl, pyridine-3-yl, pyridine-4-yl, 3-F-pyridine-2-yl, 3-Cl-pyridine-2-yl, 4-F-pyridine-2-yl, 4-Cl-pyridine-2-yl, 5-F-pyridine-2-yl, 5-Cl-pyridine-2-yl; and
- a cyclic ether group (such as tetrahydrofuran-2-yl, tetrahydrofuran-3-yl, tetrahydropyran-2-yl, tetrahydropyran-3-yl and tetrahydropyran-4-yl).

8. A compound for use in medicine according to any preceding claim, wherein the group:

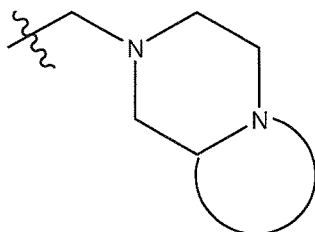


is selected from the following groups:

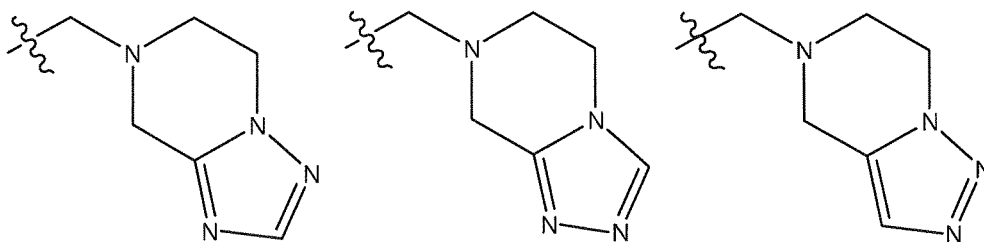


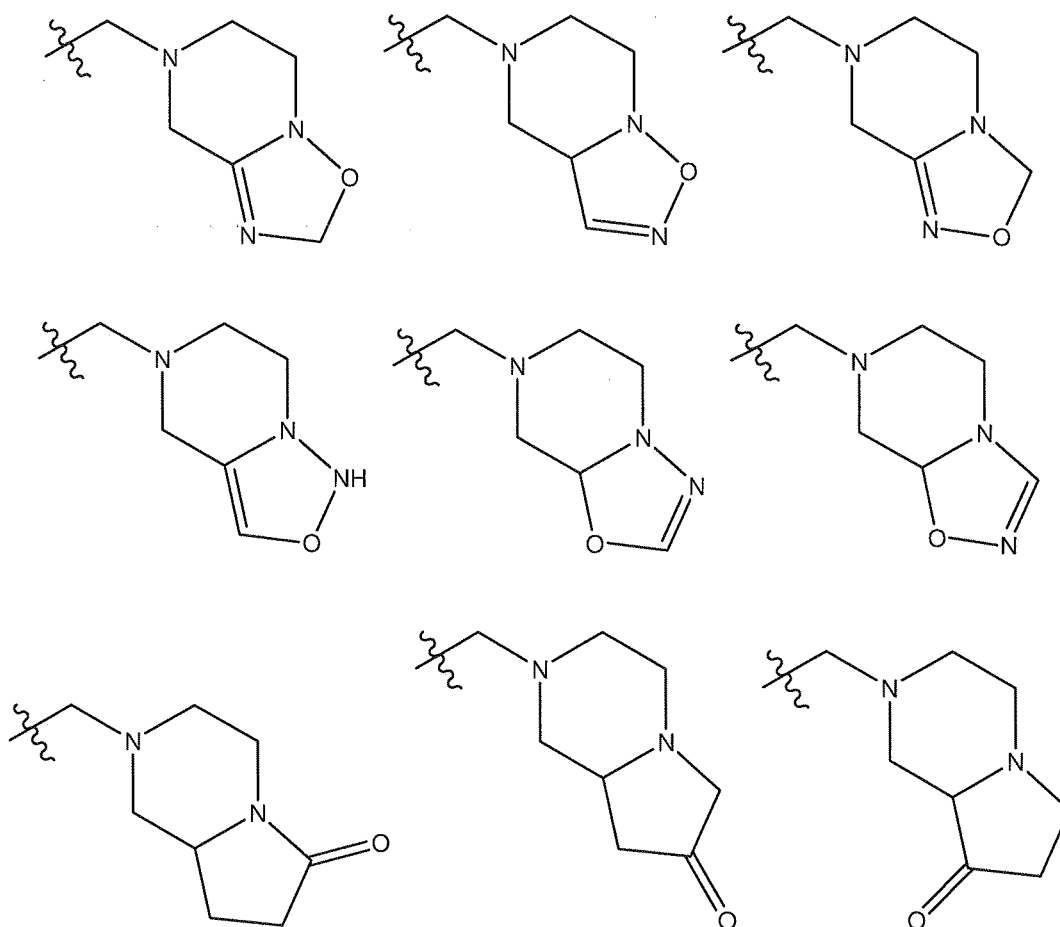


and also from a group having the following structure:



where the ring fused to the piperazine ring is a 5- or 6-membered ring optionally having 1 or more further heteroatoms in the ring selected from N and O and optionally having one or more substituents, preferably wherein this group is selected from the following:





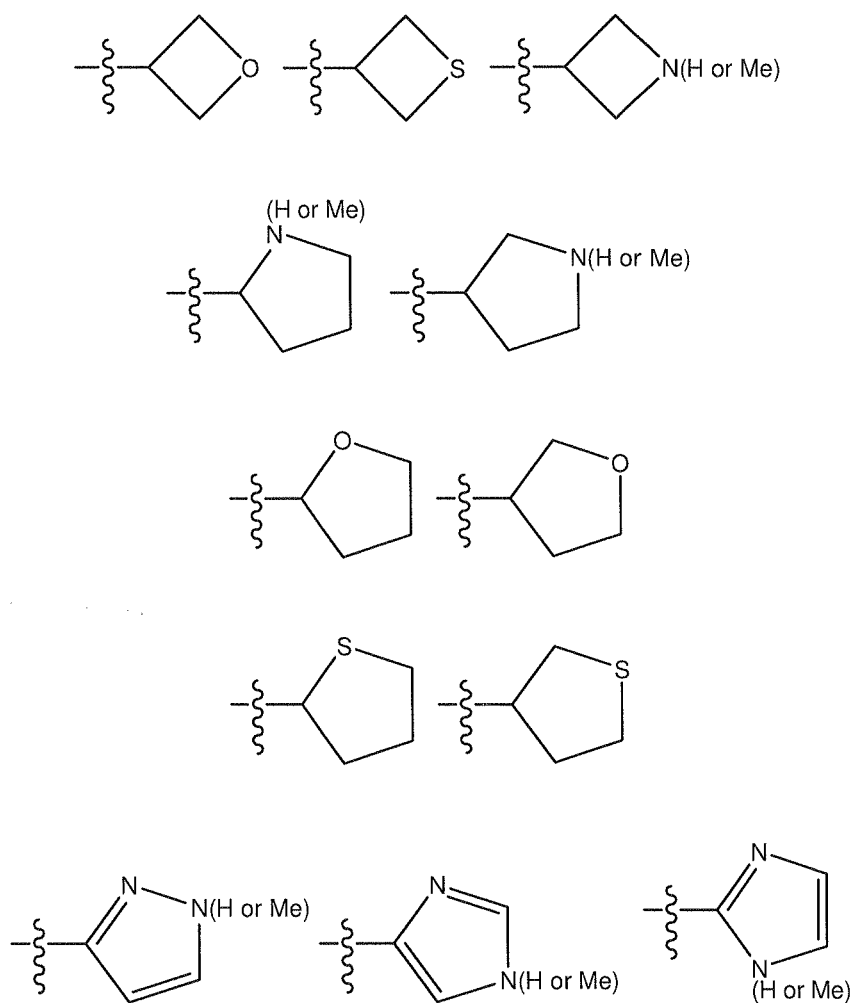
wherein R^{792} , R^{793} and R^{794} are selected from the following:

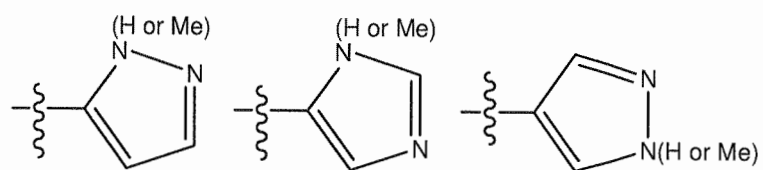
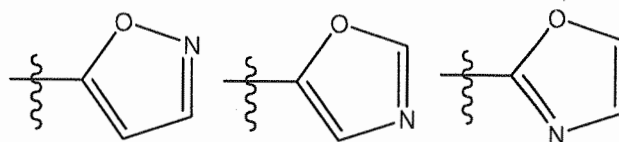
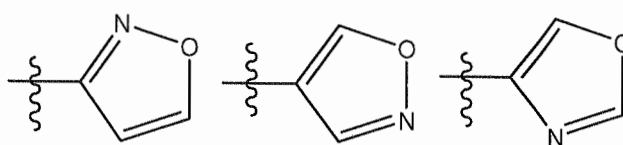
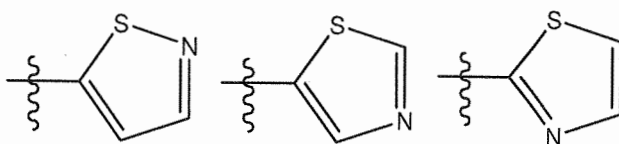
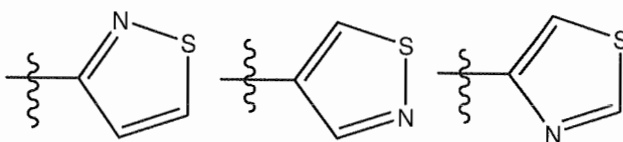
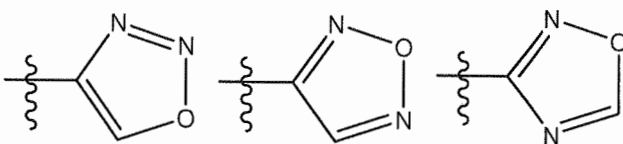
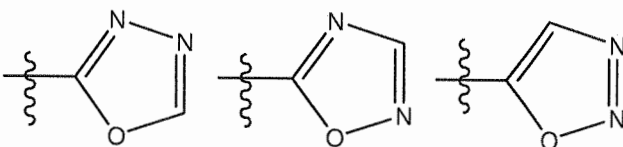
- R^{792} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)-Et$, $-(CO)-Pr$, $-(CO)iPr$, $-SO_2Me$, and SO_2Et , preferably H, Me, $-SO_2Me$ and $-(CO)-Me$;

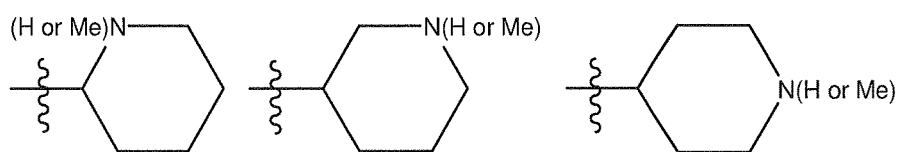
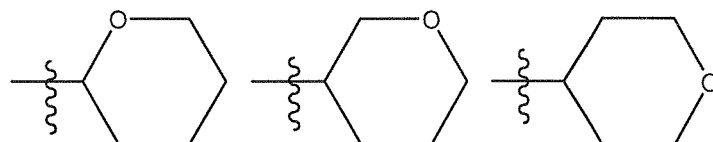
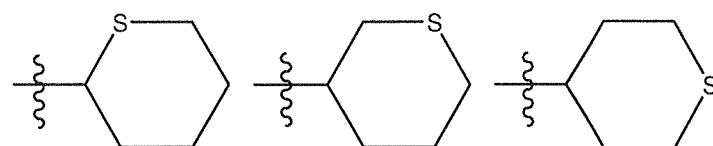
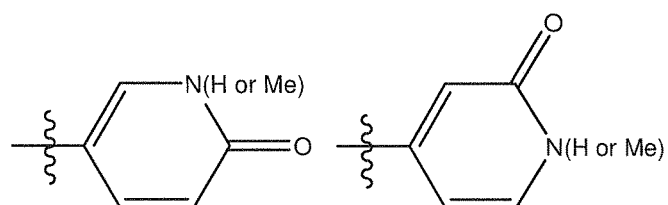
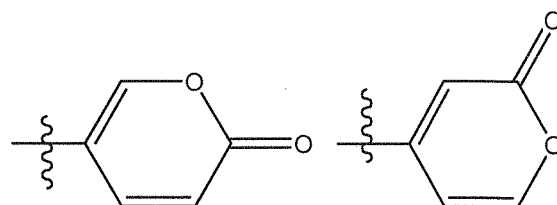
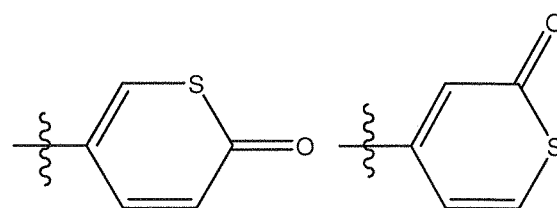
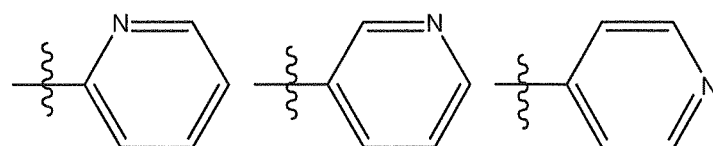
- R^{793} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)Et$, $-(CO)Pr$, and $-(CO)iPr$, preferably H, Me and $-(CO)-Me$;

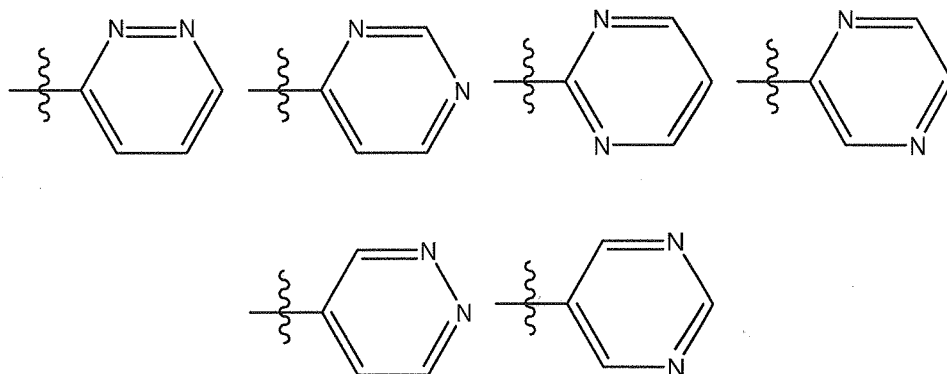
- R^{794} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu; an unsubstituted, 2,3- or 4-monosubstituted, and a 2,4 or 3,4-disubstituted phenyl group, preferably wherein the substituent is F, Cl CN, or $-OMe$ (such as 2-F-Ph, 2-Cl-Ph, 2-CN-Ph, 2-OMe-Ph, 3-F-Ph, 3-Cl-Ph, 3-CN-Ph, 3-OMe-Ph, 4-F-Ph, 4-Cl-Ph, 4-CN-Ph, 4-OMe-Ph, 2,4-F₂-Ph, 2,4-Cl₂-Ph,

2,4-(CN)₂-Ph, 2,4-(OMe)₂-Ph, 3,4-F₂-Ph, 3,4-Cl₂-Ph, 3,4-(CN)₂-Ph, and 3,4-(OMe)₂-Ph); -NH₂, -NHMe, and -NMe₂; -OH, -OMe, -OEt, -OPr, -OiPr, -OⁿBu, and -O^tBu; -CH₂OH, -CHMeOH, -C(Me)₂OH, -CH₂OMe, -CHMeOMe, -C(Me)₂OMe, -CH₂OEt, -CHMeOEt, and -C(Me)₂OEt; and a heterocyclic ring group having from 4-7 ring atoms with at least one heteroatom selected from N, O, and S, which ring group may be saturated or unsaturated and may be substituted or unsubstituted, preferably wherein the heterocyclic ring group is selected from the following groups:









9. A compound for use in medicine according to any preceding claim, wherein R^1 , R^2 and R^4 are each independently H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);

- a linear or branched C_1 - C_6 alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl);

- a linear or branched C_1 - C_6 alkyl-aryl group (such as $-\text{CH}_2\text{Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{F-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Cl-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Br-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{I-Ph}$, $-\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$);

- a linear or branched C_1 - C_6 halogenated alkyl group (such as $-\text{CH}_2\text{F}$, $-\text{CH}_2\text{Cl}$, $-\text{CH}_2\text{Br}$, $-\text{CH}_2\text{I}$, $-\text{CF}_3$, $-\text{CCl}_3$, $-\text{CBr}_3$, $-\text{Cl}_3$, $-\text{CH}_2\text{CF}_3$, $-\text{CH}_2\text{CCl}_3$, $-\text{CH}_2\text{CBr}_3$, and $-\text{CH}_2\text{Cl}_3$);

- a linear or branched primary secondary or tertiary C_1 - C_6 amine group (such as $-\text{NH}_2$, $-\text{NMeH}$, $-\text{NMe}_2$, $-\text{NEtH}$, $-\text{NEtMe}$, $-\text{NEt}_2$, $-\text{NPrH}$, $-\text{NPrMe}$, $-\text{NPrEt}$, $-\text{NPr}_2$, $-\text{NBuH}$, $-\text{NBuMe}$, $-\text{NBuEt}$, $-\text{CH}_2\text{-NH}_2$, $-\text{CH}_2\text{-NMeH}$, $-\text{CH}_2\text{-NMe}_2$, $-\text{CH}_2\text{-NEtH}$, $-\text{CH}_2\text{-NEtMe}$, $-\text{CH}_2\text{-NEt}_2$, $-\text{CH}_2\text{-NPrH}$, $-\text{CH}_2\text{-NPrMe}$, and $-\text{CH}_2\text{-NPrEt}$);

- a amino-aryl group (such as -NH-Ph, -NH-(2,3 or 4)F-Ph, -NH-(2,3 or 4)Cl-Ph, -NH-(2,3 or 4)Br-Ph, -NH-(2,3 or 4)I-Ph, -NH-(2,3 or 4)Me-Ph, -NH-(2,3 or 4)Et-Ph, -NH-(2,3 or 4)Pr-Ph, -NH-(2,3 or 4)Bu-Ph, -NH-(2,3 or 4)OMe-Ph, -NH-(2,3 or 4)OEt-Ph, -NH-(2,3 or 4)OPr-Ph, -NH-(2,3 or 4)OBu-Ph, -NH-2,(3,4,5 or 6)F₂-Ph, -NH-2,(3,4,5 or 6)Cl₂-Ph, -NH-2,(3,4,5 or 6)Br₂-Ph, -NH-2,(3,4,5 or 6)I₂-Ph, -NH-2,(3,4,5 or 6)Me₂-Ph, -NH-2,(3,4,5 or 6)Et₂-Ph, -NH-2,(3,4,5 or 6)Pr₂-Ph, -NH-2,(3,4,5 or 6)Bu₂-Ph;

- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);

- a cyclic C₃-C₈ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);

- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);

- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);

- a linear or branched carbonyl group (such as -(CO)Me, -(CO)Et, -(CO)Pr, -(CO)iPr, -(CO)nBu, -(CO)iBu, -(CO)tBu, -(CO)Ph, -(CO)CH₂Ph, -(CO)CH₂OH, -(CO)CH₂OCH₃, -(CO)CH₂NH₂, -(CO)CH₂NHMe, -(CO)CH₂NMe₂, -(CO)-cyclopropyl, -(CO)-1,3-epoxypropan-2-yl; -(CO)NH₂, -(CO)NHMe, -(CO)NMe₂, -(CO)NH₂Et, -(CO)NEt₂, -(CO)-pyrrolidine-N-yl, -(CO)-morpholine-N-yl, -(CO)-piperazine-N-yl, -(CO)-N-methyl-piperazine-N-yl, -(CO)NHCH₂CH₂OH, -(CO)NHCH₂CH₂OMe, -(CO)NHCH₂CH₂NH₂, -(CO)NHCH₂CH₂NHMe, and -(CO)NHCH₂CH₂NMe₂;

- a linear or branched C₁-C₆ carboxylic acid ester group (such as -COOMe, -COOEt, -COOPr, -COO-i-Pr, -COO-n-Bu, -COO-i-Bu, -COO-t-Bu, -CH₂COOMe, -CH₂CH₂COOMe, -CH₂CH₂CH₂COOMe, and -CH₂CH₂CH₂CH₂COOMe);
- a linear or branched C₁-C₆ amide group (such as -CO-NH₂, -CO-NMeH, -CO-NMe₂, -CO-NEtH, -CO-NEtMe, -CO-NEt₂, -CO-NPrH, -CO-NPrMe, and -CO-NPrEt);
- a linear or branched C₁-C₇ amino carbonyl group (such as -NH-CO-Me, -NH-CO-Et, -NH-CO-Pr, -NH-CO-Bu, -NH-CO-pentyl, -NH-CO-hexyl, -NH-CO-Ph, -NMe-CO-Me, -NMe-CO-Et, -NMe-CO-Pr, -NMe-CO-Bu, -NMe-CO-pentyl, -NMe-CO-hexyl, -NMe-CO-Ph);
- a linear or branched C₁-C₇ alkoxy or aryloxy group (such as -OMe, -OEt, -OPr, -O-i-Pr, -O-n-Bu, -O-i-Bu, -O-t-Bu, -O-pentyl, -O-hexyl, -OCH₂F, -OCHF₂, -OCF₃, -OCH₂Cl, -OCHCl₂, -OCCl₃, -O-Ph, -O-CH₂-Ph, -O-CH₂-(2,3 or 4)-F-Ph, -O-CH₂-(2,3 or 4)-Cl-Ph, -CH₂OMe, -CH₂OEt, -CH₂OPr, -CH₂OBu, -CH₂CH₂OMe, -CH₂CH₂CH₂OMe, -CH₂CH₂CH₂CH₂OMe, and -CH₂CH₂CH₂CH₂CH₂OMe);
- a linear or branched aminoalkoxy group (such as -OCH₂NH₂, -OCH₂NHMe, -OCH₂NMe₂, -OCH₂NHEt, -OCH₂NEt₂, -OCH₂CH₂NH₂, -OCH₂CH₂NHMe, -OCH₂CH₂NMe₂, -OCH₂CH₂NHEt, and -OCH₂CH₂NEt₂);
- a sulphonyl group (such as -SO₂Me, -SO₂Et, -SO₂Pr, -SO₂iPr, -SO₂Ph, -SO₂-(2,3 or 4)-F-Ph, -SO₂-cyclopropyl, -SO₂CH₂CH₂OCH₃);
- a sulphonylamino group (such as -SO₂NH₂, -SO₂NHMe, -SO₂NMe₂, -SO₂NHEt, -SO₂NEt₂, -SO₂-pyrrolidine-N-yl, -SO₂-morpholine-N-yl, -SO₂NHCH₂OMe, and -SO₂NHCH₂CH₂OMe);
- an aminosulphonyl group (such as -NHSO₂Me, -NHSO₂Et, -NHSO₂Pr, -NHSO₂iPr, -NHSO₂Ph, -NHSO₂-(2,3 or 4)-F-Ph, -NHSO₂-cyclopropyl, -NHSO₂CH₂CH₂OCH₃);
- a cyclic aminosulphonyl- group (such as -N(SO₂)(CH₂)₃ and -N(SO₂)(CH₂)₄);

- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and

- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl).

10. A compound for use in medicine according to any preceding claim, wherein each of R⁷¹, R⁷², R⁷³, R⁷⁴, R⁷⁵ and R⁷⁶ is independently H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);

- a linear or branched C₁-C₆ alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl);

- a linear or branched C_1 - C_6 alkyl-aryl group (such as $-\text{CH}_2\text{Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{F-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Cl-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Br-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{I-Ph}$, $-\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$);

- a linear or branched C_1 - C_6 halogenated alkyl group (such as $-\text{CH}_2\text{F}$, $-\text{CH}_2\text{Cl}$, $-\text{CH}_2\text{Br}$, $-\text{CH}_2\text{I}$, $-\text{CF}_3$, $-\text{CCl}_3$, $-\text{CBr}_3$, $-\text{Cl}_3$, $-\text{CH}_2\text{CF}_3$, $-\text{CH}_2\text{CCl}_3$, $-\text{CH}_2\text{CBr}_3$, and $-\text{CH}_2\text{Cl}_3$);

- a linear or branched primary secondary or tertiary C_1 - C_6 amine group (such as $-\text{NH}_2$, $-\text{NMeH}$, $-\text{NMe}_2$, $-\text{NEtH}$, $-\text{NEtMe}$, $-\text{NEt}_2$, $-\text{NPrH}$, $-\text{NPrMe}$, $-\text{NPrEt}$, $-\text{NPr}_2$, $-\text{NBuH}$, $-\text{NBuMe}$, $-\text{NBuEt}$, $-\text{CH}_2\text{-NH}_2$, $-\text{CH}_2\text{-NMeH}$, $-\text{CH}_2\text{-NMe}_2$, $-\text{CH}_2\text{-NEtH}$, $-\text{CH}_2\text{-NEtMe}$, $-\text{CH}_2\text{-NEt}_2$, $-\text{CH}_2\text{-NPrH}$, $-\text{CH}_2\text{-NPrMe}$, and $-\text{CH}_2\text{-NPrEt}$);

- a amino-aryl group (such as $-\text{NH-Ph}$, $-\text{NH-(2,3 or 4)F-Ph}$, $-\text{NH-(2,3 or 4)Cl-Ph}$, $-\text{NH-(2,3 or 4)Br-Ph}$, $-\text{NH-(2,3 or 4)I-Ph}$, $-\text{NH-(2,3 or 4)Me-Ph}$, $-\text{NH-(2,3 or 4)Et-Ph}$, $-\text{NH-(2,3 or 4)Pr-Ph}$, $-\text{NH-(2,3 or 4)Bu-Ph}$, $-\text{NH-(2,3 or 4)OMe-Ph}$, $-\text{NH-(2,3 or 4)OEt-Ph}$, $-\text{NH-(2,3 or 4)OPr-Ph}$, $-\text{NH-(2,3 or 4)OBu-Ph}$, $-\text{NH-2,(3,4,5 or 6)F}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Cl}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Br}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)I}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Me}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Et}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Pr}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Bu}_2\text{-Ph}$);

- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);

- a cyclic C_3 - C_8 alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);

- a linear or branched C_1 - C_6 alcohol group (such as $-\text{CH}_2\text{OH}$, $-\text{CH}_2\text{CH}_2\text{OH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$);

- a linear or branched C_1 - C_6 carboxylic acid group (such as $-\text{COOH}$, $-\text{CH}_2\text{COOH}$, $-\text{CH}_2\text{CH}_2\text{COOH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$);

- a linear or branched carbonyl group (such as $-(\text{CO})\text{Me}$, $-(\text{CO})\text{Et}$, $-(\text{CO})\text{Pr}$, $-(\text{CO})\text{iPr}$, $-(\text{CO})\text{nBu}$, $-(\text{CO})\text{iBu}$, $-(\text{CO})\text{tBu}$, $-(\text{CO})\text{Ph}$, $-(\text{CO})\text{CH}_2\text{Ph}$, $-(\text{CO})\text{CH}_2\text{OH}$, $-(\text{CO})\text{CH}_2\text{OCH}_3$, $-(\text{CO})\text{CH}_2\text{NH}_2$, $-(\text{CO})\text{CH}_2\text{NHMe}$, $-(\text{CO})\text{CH}_2\text{NMe}_2$, $-(\text{CO})\text{-cyclopropyl}$, $-(\text{CO})\text{-1,3-epoxypropan-2-yl}$, $-(\text{CO})\text{NH}_2$, $-(\text{CO})\text{NHMe}$, $-(\text{CO})\text{NMe}_2$, $-(\text{CO})\text{NHEt}$, $-(\text{CO})\text{NEt}_2$, $-(\text{CO})\text{-pyrrolidine-N-yl}$, $-(\text{CO})\text{-morpholine-N-yl}$, $-(\text{CO})\text{-piperazine-N-yl}$, $-(\text{CO})\text{-N-methyl-piperazine-N-yl}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{OH}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{OMe}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NH}_2$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NHMe}$, and $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NMe}_2$;

- a linear or branched C_1 - C_6 carboxylic acid ester group (such as $-\text{COOMe}$, $-\text{COOEt}$, $-\text{COOPr}$, $-\text{COO-i-Pr}$, $-\text{COO-n-Bu}$, $-\text{COO-i-Bu}$, $-\text{COO-t-Bu}$, $-\text{CH}_2\text{COOMe}$, $-\text{CH}_2\text{CH}_2\text{COOMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{COOMe}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOMe}$);

- a linear or branched C_1 - C_6 amide group (such as $-\text{CO-NH}_2$, $-\text{CO-NMeH}$, $-\text{CO-NMe}_2$, $-\text{CO-NEtH}$, $-\text{CO-NEtMe}$, $-\text{CO-NEt}_2$, $-\text{CO-NPrH}$, $-\text{CO-NPrMe}$, and $-\text{CO-NPrEt}$);

- a linear or branched C_1 - C_7 amino carbonyl group (such as $-\text{NH-CO-Me}$, $-\text{NH-CO-Et}$, $-\text{NH-CO-Pr}$, $-\text{NH-CO-Bu}$, $-\text{NH-CO-pentyl}$, $-\text{NH-CO-hexyl}$, $-\text{NH-CO-Ph}$, $-\text{NMe-CO-Me}$, $-\text{NMe-CO-Et}$, $-\text{NMe-CO-Pr}$, $-\text{NMe-CO-Bu}$, $-\text{NMe-CO-pentyl}$, $-\text{NMe-CO-hexyl}$, $-\text{NMe-CO-Ph}$;

- a linear or branched C_1 - C_7 alkoxy or aryloxy group (such as $-\text{OMe}$, $-\text{OEt}$, $-\text{OPr}$, $-\text{O-i-Pr}$, $-\text{O-n-Bu}$, $-\text{O-i-Bu}$, $-\text{O-t-Bu}$, $-\text{O-pentyl}$, $-\text{O-hexyl}$, $-\text{OCH}_2\text{F}$, $-\text{OCHF}_2$, $-\text{OCF}_3$, $-\text{OCH}_2\text{Cl}$, $-\text{OCHCl}_2$, $-\text{OCCl}_3$, $-\text{O-Ph}$, $-\text{O-CH}_2\text{-Ph}$, $-\text{O-CH}_2\text{-(2,3 or 4)-F-Ph}$, $-\text{O-CH}_2\text{-(2,3 or 4)-Cl-Ph}$, $-\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{OEt}$, $-\text{CH}_2\text{OPr}$, $-\text{CH}_2\text{OBu}$, $-\text{CH}_2\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$);

- a linear or branched aminoalkoxy group (such as -OCH₂NH₂, -OCH₂NHMe, -OCH₂NMe₂, -OCH₂NHEt, -OCH₂NEt₂, -OCH₂CH₂NH₂, -OCH₂CH₂NHMe, -OCH₂CH₂NMe₂, -OCH₂CH₂NHEt, and -OCH₂CH₂NEt₂;
- a sulphonyl group (such as -SO₂Me, -SO₂Et, -SO₂Pr, -SO₂iPr, -SO₂Ph, -SO₂-(2,3 or 4)-F-Ph, -SO₂-cyclopropyl, -SO₂CH₂CH₂OCH₃;
- a sulphonylamino group (such as -SO₂NH₂, -SO₂NHMe, -SO₂NMe₂, -SO₂NHEt, -SO₂NEt₂, -SO₂-pyrrolidine-N-yl, -SO₂-morpholine-N-yl, -SO₂NHCH₂OMe, and -SO₂NHCH₂CH₂OMe);
- an aminosulphonyl group (such as -NHSO₂Me, -NHSO₂Et, -NHSO₂Pr, -NHSO₂iPr, -NHSO₂Ph, -NHSO₂-(2,3 or 4)-F-Ph, -NHSO₂-cyclopropyl, -NHSO₂CH₂CH₂OCH₃);
- a cyclic aminosulphonyl- group (such as -N(SO₂)(CH₂)₃ and -N(SO₂)(CH₂)₄);
- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and
- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl,

thiophen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

preferably wherein R^{75} is a substituted or unsubstituted group selected from a linear or branched alkyl group, a cycloalkyl group, a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group, and an aryl group; chosen from the following:

- a linear or branched C_1 - C_6 alkyl group (such as Me, Et, Pr, i-Pr, n-Bu, i-Bu, t-Bu, pentyl and hexyl);

- a linear or branched C_1 - C_6 alkyl-aryl group (such as $-\text{CH}_2\text{Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{F-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Cl-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Br-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{I-Ph}$, $-\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$);

- a linear or branched C_1 - C_6 halogenated alkyl group (such as $-\text{CH}_2\text{F}$, $-\text{CH}_2\text{Cl}$, $-\text{CH}_2\text{Br}$, $-\text{CH}_2\text{I}$, $-\text{CF}_3$, $-\text{CCl}_3$, $-\text{CBr}_3$, and $-\text{CI}_3$);

- a linear or branched primary secondary or tertiary C_1 - C_6 alkylamine group (such as $-\text{CH}_2\text{-NH}_2$, $-\text{CH}_2\text{-NMeH}$, $-\text{CH}_2\text{-NMe}_2$, $-\text{CH}_2\text{-NEtH}$, $-\text{CH}_2\text{-NEtMe}$, $-\text{CH}_2\text{-NEt}_2$, $-\text{CH}_2\text{-NPrH}$, $-\text{CH}_2\text{-NPrMe}$, and $-\text{CH}_2\text{-NPrEt}$);

- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);

- a cyclic C_3 - C_8 alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);

- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);

- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);

- a linear or branched C₁-C₆ carboxylic acid ester group (such as -COOMe, -COOEt, -COOPr, -COO-i-Pr, -COO-n-Bu, -COO-i-Bu, -COO-t-Bu, -CH₂COOMe, -CH₂CH₂COOMe, -CH₂CH₂CH₂COOMe, and -CH₂CH₂CH₂CH₂COOMe);

- a linear or branched C₁-C₆ amide group (such as -CO-NH₂, -CO-NMeH, -CO-NMe₂, -CO-NEtH, -CO-NEtMe, -CO-NEt₂, -CO-NPrH, -CO-NPrMe, and -CO-NPrEt);

- a linear or branched C₁-C₇ alkoxyalkyl or aryloxyalkyl group (such as -CH₂OMe, -CH₂OEt, -CH₂OPr, -CH₂OBu, -CH₂CH₂OMe, -CH₂CH₂CH₂OMe, -CH₂CH₂CH₂CH₂OMe, and -CH₂CH₂CH₂CH₂CH₂OMe);

- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and

- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

wherein two of R^{71} and/or two of R^{72} when attached to the same carbon atom may together form a ketone group.

11. A compound for use in medicine according to any preceding claim, wherein:

R^3 is selected from the following:

- an unsubstituted, 2-monosubstituted, or 2,6-disubstituted phenyl group, preferably where the substituent is selected from F, Cl and CN (such as Ph-, 2-F-Ph-, 2,6-F₂-Ph-, 2-Cl-Ph-, 2,6-Cl₂-Ph-, 2-CN-Ph-, 2,6-(CN)₂-Ph-, 2,6-F,CN-Ph-, 2,6-F,Cl-Ph-, and 2,6-Cl,CN-Ph-);

- an unsubstituted or 3-monosubstituted pyridine-2-yl, or a 2,6-disubstituted pyridine-4-yl group, preferably where the substituent is selected from F, Cl and CN (such as Pyr-2-yl, Pyr-3-yl, Pyr-4-yl, 3-F-Pyr-2-yl, 3-Cl-Pyr-2-yl, 3-CN-Pyr-2-yl, 2,6-F₂-Pyr-4-yl, 2,6-Cl₂-Pyr-4-yl and 2,6-(CN)₂-Pyr-4-yl. In this context Pyr means pyridine;

- an unsubstituted or 4-substituted pyrid-1,2-azine-3-yl group, preferably where the substituent is selected from F, Cl and CN (such as pyridazine-3-yl, 4-F-pyridazine-3-yl, 4-Cl-pyridazine-3-yl, and 4-CN-pyridazine-3-yl);

- a substituted or unsubstituted 1,2,4-oxadiazol-3-yl group;

- a cyclic aminosulphonyl- group (such as $-N(SO_2)(CH_2)_3$ and $-N(SO_2)(CH_2)_4$);

- a linear or branched aminosulphonyl group (such as $-\text{NH}-\text{SO}_2-\text{Me}$, $-\text{NH}-\text{SO}_2-\text{Et}$, $-\text{NH}-\text{SO}_2-\text{iPr}$, $-\text{NH}-\text{SO}_2-\text{cycloPr}$, $-\text{NH}-\text{SO}_2-\text{Pr}$, $-\text{NH}-\text{SO}_2-\text{EtOMe}$, $-\text{NMe}-\text{SO}_2-\text{Me}$, $-\text{NMe}-\text{SO}_2-\text{Et}$, $-\text{NMe}-\text{SO}_2-\text{iPr}$, $-\text{NMe}-\text{SO}_2-\text{cycloPr}$, $-\text{NMe}-\text{SO}_2-\text{Pr}$, $-\text{NMe}-\text{SO}_2-\text{EtOMe}$, $-\text{NEt}-\text{SO}_2-\text{Me}$, $-\text{NEt}-\text{SO}_2-\text{Et}$, $-\text{NEt}-\text{SO}_2-\text{iPr}$, $-\text{NEt}-\text{SO}_2-\text{cycloPr}$, $-\text{NEt}-\text{SO}_2-\text{Pr}$, $-\text{NEt}-\text{SO}_2-\text{EtOMe}$, $-\text{NiPr}-\text{SO}_2-\text{Me}$, $-\text{NiPr}-\text{SO}_2-\text{Et}$, $-\text{NiPr}-\text{SO}_2-\text{iPr}$, $-\text{NiPr}-\text{SO}_2-\text{cycloPr}$, $-\text{NiPr}-\text{SO}_2-\text{Pr}$, $-\text{NiPr}-\text{SO}_2-\text{EtOMe}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{Me}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{Et}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{iPr}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{cycloPr}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{Pr}$, and $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{EtOMe}$;

- a linear or branched sulphonylamino group (such as $-\text{SO}_2-\text{NH}_2$, $-\text{SO}_2-\text{NHMe}$, $-\text{SO}_2-\text{NHET}$, $-\text{SO}_2-\text{NMe}_2$, $-\text{SO}_2-\text{NMeEt}$, $-\text{SO}_2-\text{NHET}_2$, and $-\text{SO}_2-\text{pyrrolidin-N-yl}$);

- a linear or branched sulphonyl group (such as $-\text{SO}_2\text{Me}$, $-\text{SO}_2\text{Et}$, $-\text{SO}_2\text{Pr}$, $-\text{SO}_2\text{iPr}$);

- a thioether group (such as $-\text{SMe}$, $-\text{SEt}$, $-\text{SPr}$, and SiPr);

- a branched or cyclic alkyl or alkenyl group having 3 carbon atoms or more, preferably having from 3 to 6 carbon atoms, and preferably selected from an isopropyl, a cyclopropyl and a propen-2-yl group;

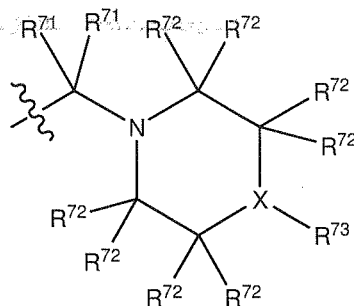
R^6 is selected from the following:

- an unsubstituted, 2-,3- or 4-monosubstituted, and a 2,4 or 3,4-disubstituted phenyl group, preferably wherein the substituent is F, Cl or $-\text{OMe}$ (such as 2-F-Ph, 2-Cl-Ph, 2-OMe-Ph, 3-F-Ph, 3-Cl-Ph, 3-OMe-Ph, 4-F-Ph, 4-Cl-Ph, 4-OMe-Ph, 2,4-F₂-Ph, 2,4-Cl₂-Ph, 2,4-(OMe)₂-Ph, 3,4-F₂-Ph, 3,4-Cl₂-Ph, and 3,4-(OMe)₂-Ph);

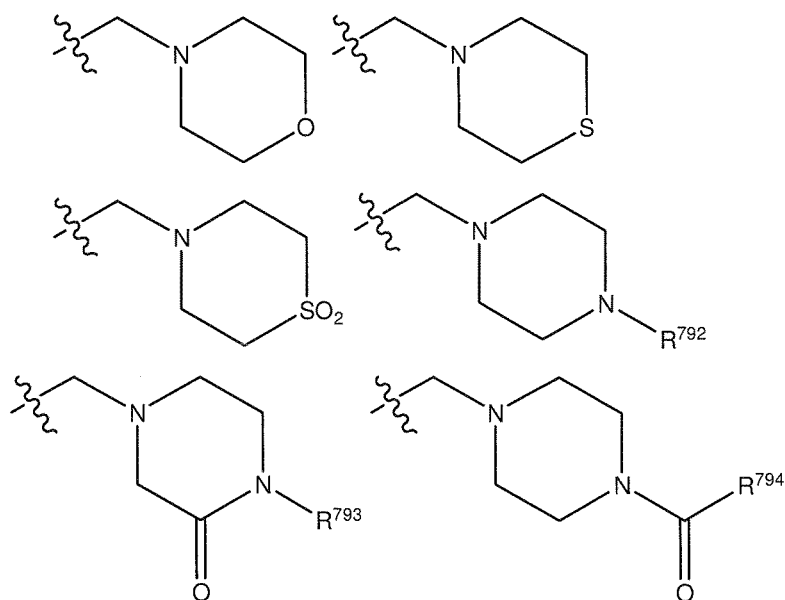
- a substituted or unsubstituted pyridine-2-yl, pyridine-3-yl or pyridine-4-yl group preferably wherein the substituent is F or Cl (such as pyridine-2-yl, pyridine-3-yl, pyridine-4-yl, 3-F-pyridine-2-yl, 3-Cl-pyridine-2-yl, 4-F-pyridine-2-yl, 4-Cl-pyridine-2-yl, 5-F-pyridine-2-yl, 5-Cl-pyridine-2-yl);

- a cyclic ether group (such as tetrahydrofuran-2-yl, tetrahydrofuran-3-yl, tetrahydropyran-2-yl, tetrahydropyran-3-yl and tetrahydropyran-4-yl); and

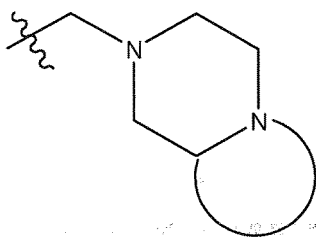
the group:



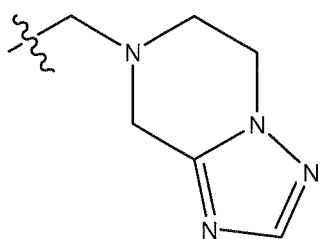
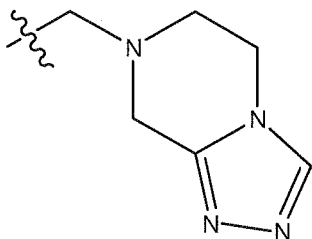
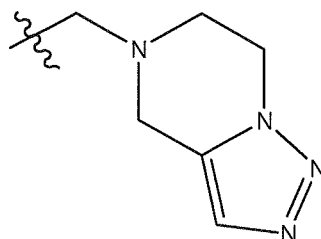
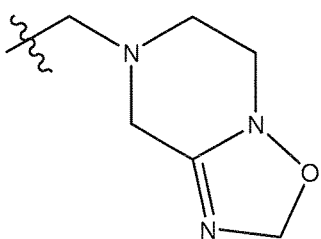
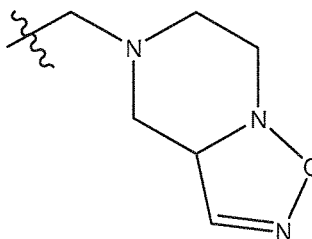
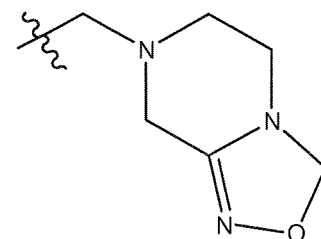
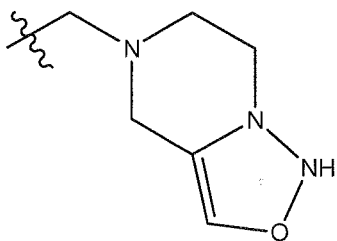
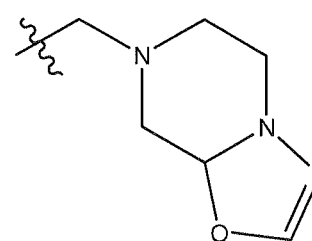
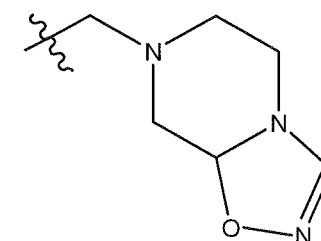
is selected from the following groups:

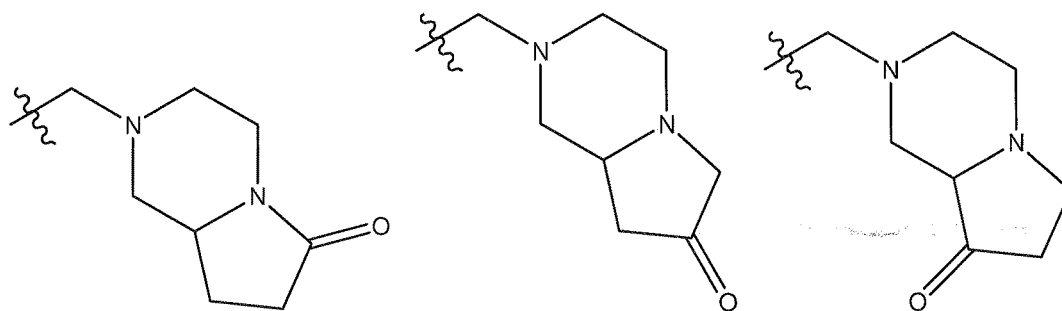


and also from a group having the following structure:



where the ring fused to the piperazine ring is a 5- or 6-membered ring optionally having 1 or more further heteroatoms in the ring selected from N and O and optionally having one or more substituents, preferably wherein this group is selected from the following:



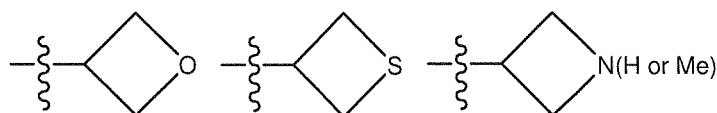


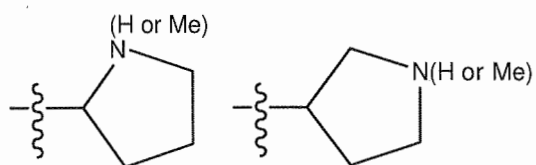
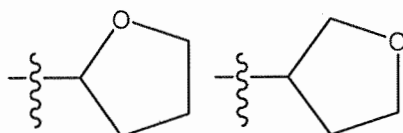
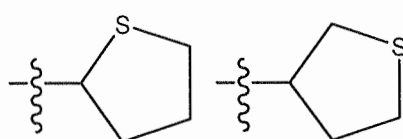
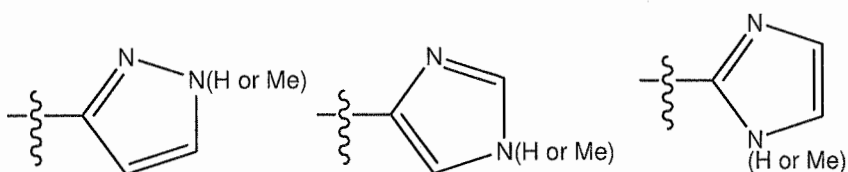
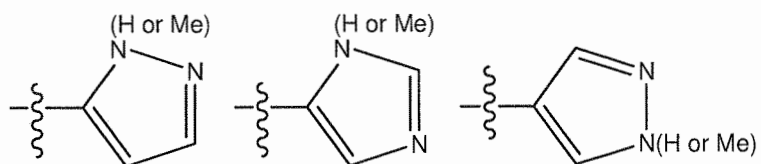
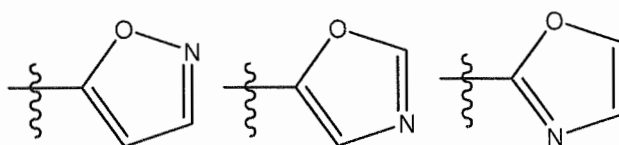
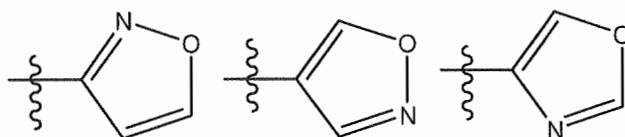
wherein R^{792} , R^{793} and R^{794} are as defined below:

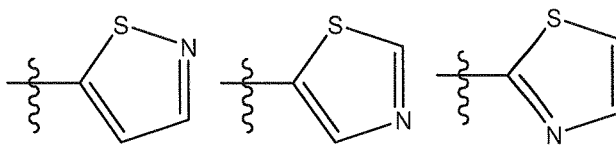
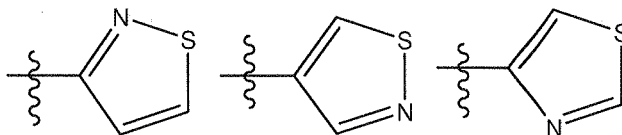
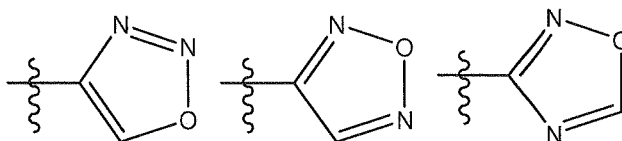
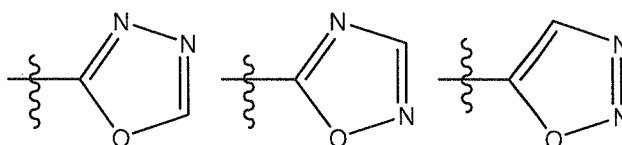
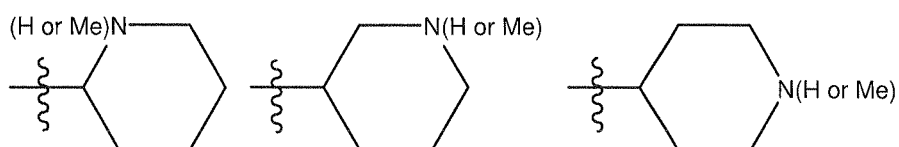
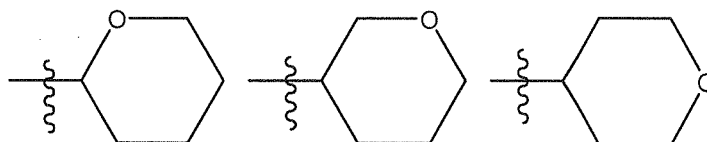
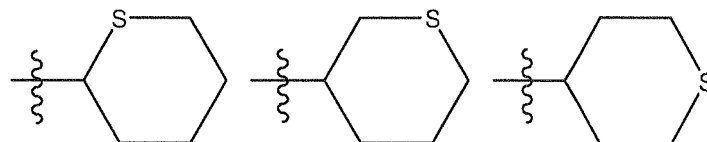
- R^{792} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)-Et$, $-(CO)-Pr$, $-(CO)iPr$, $-SO_2Me$, and SO_2Et , preferably H, Me, $-SO_2Me$ and $-(CO)-Me$;

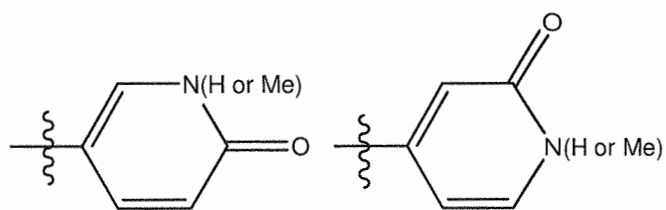
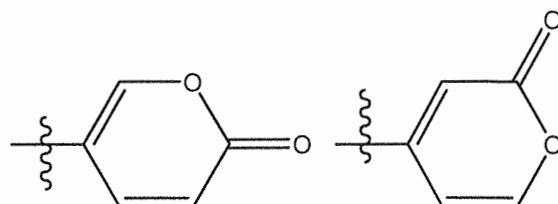
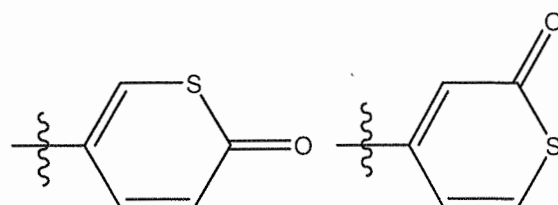
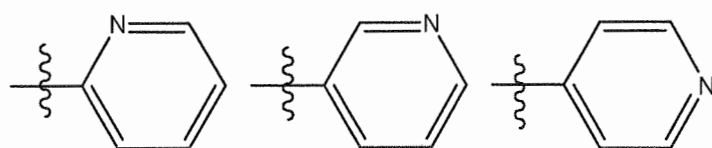
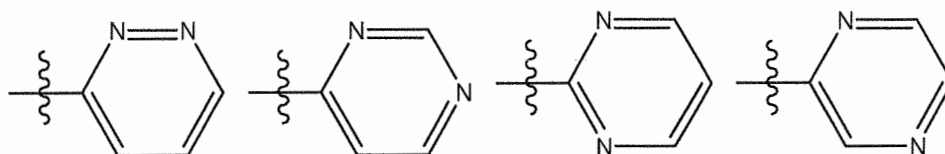
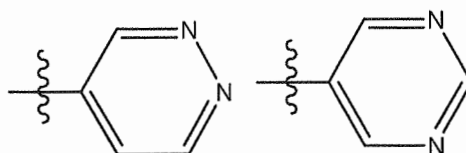
- R^{793} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)Et$, $-(CO)Pr$, and $-(CO)iPr$, preferably H, Me and $-(CO)-Me$;

- R^{794} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu; an unsubstituted, 2-,3- or 4-monosubstituted, and a 2,4 or 3,4-disubstituted phenyl group, preferably wherein the substituent is F, Cl CN, or $-OMe$ (such as 2-F-Ph, 2-Cl-Ph, 2-CN-Ph, 2-OMe-Ph, 3-F-Ph, 3-Cl-Ph, 3-CN-Ph, 3-OMe-Ph, 4-F-Ph, 4-Cl-Ph, 4-CN-Ph, 4-OMe-Ph, 2,4-F₂-Ph, 2,4-Cl₂-Ph, 2,4-(CN)₂-Ph, 2,4-(OMe)₂-Ph, 3,4-F₂-Ph, 3,4-Cl₂-Ph, 3,4-(CN)₂-Ph, and 3,4-(OMe)₂-Ph); $-NH_2$, $-NHMe$, and $-NMe_2$; $-OH$, $-OMe$, $-OEt$, $-OPr$, $-OiPr$, $-O^iBu$, and $-O^tBu$; $-CH_2OH$, $-CHMeOH$, $-C(Me)_2OH$, $-CH_2OMe$, $-CHMeOMe$, $-C(Me)_2OMe$, $-CH_2OEt$, $-CHMeOEt$, and $-C(Me)_2OEt$; and a heterocyclic ring group having from 4-7 ring atoms with at least one heteroatom selected from N, O, and S, which ring group may be saturated or unsaturated and may be substituted or unsubstituted, preferably wherein the heterocyclic ring group is selected from the following groups:

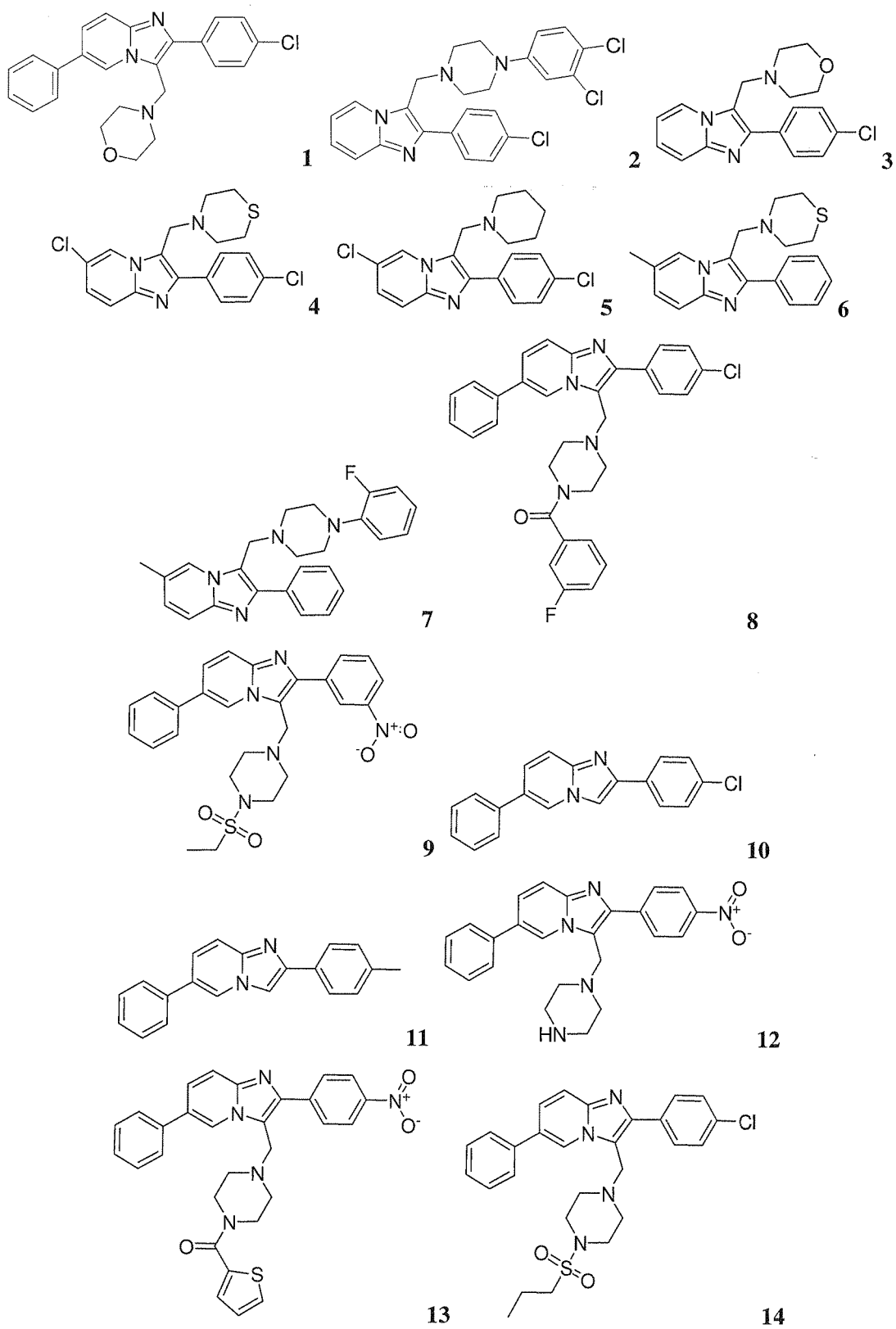


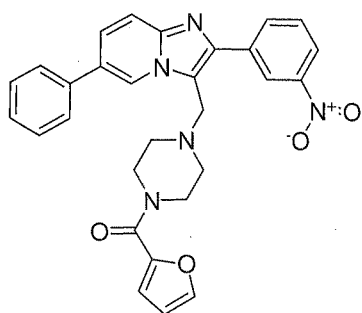




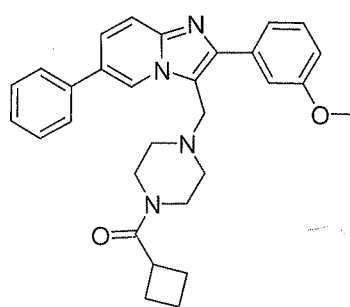


12. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:

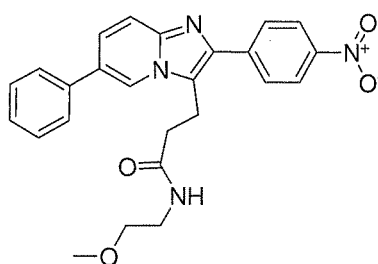




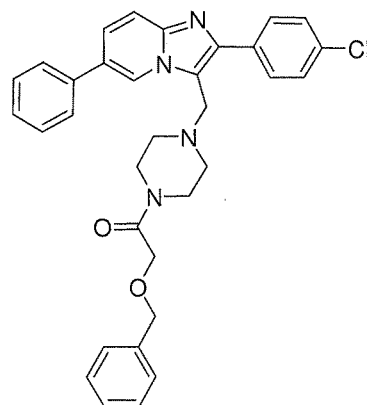
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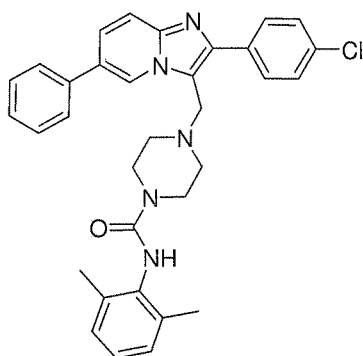
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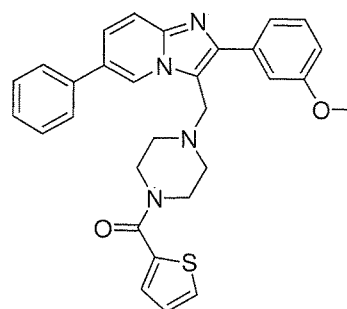
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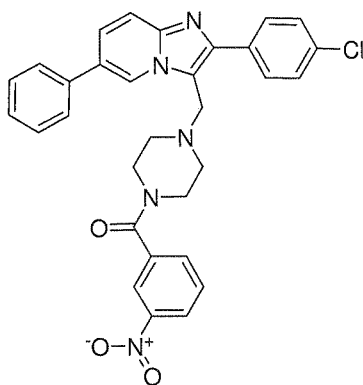
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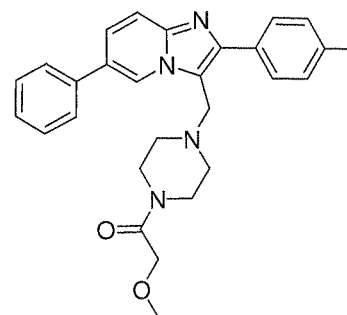
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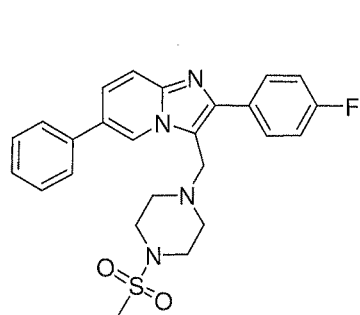
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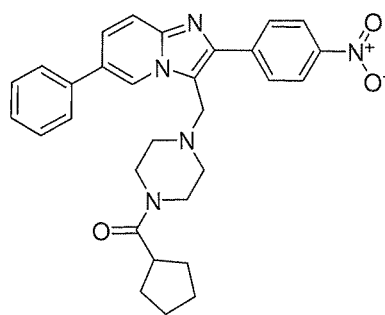
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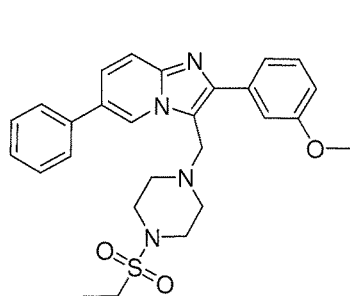
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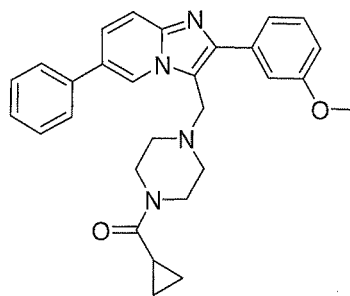
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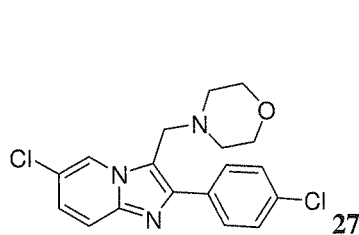
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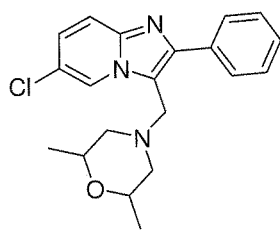
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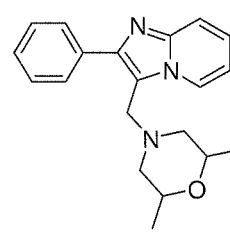
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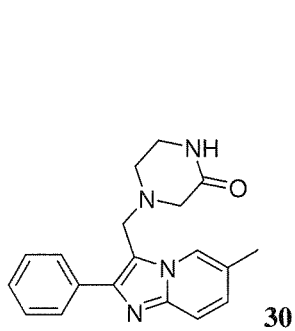
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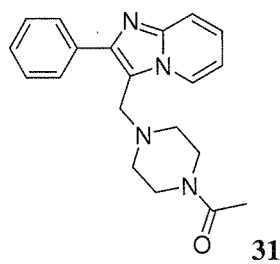
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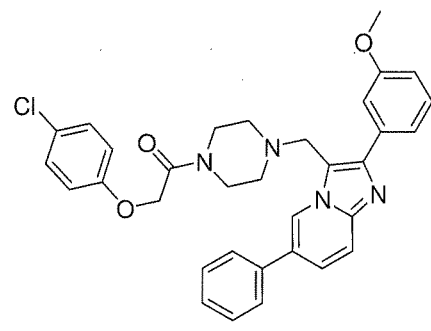
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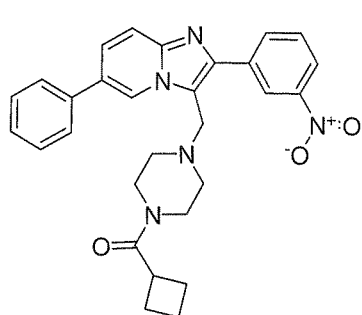
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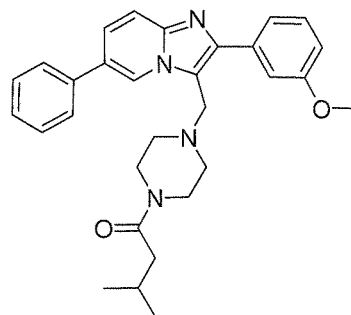
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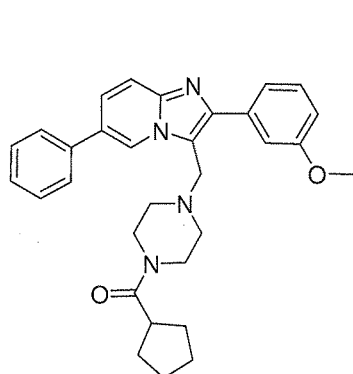
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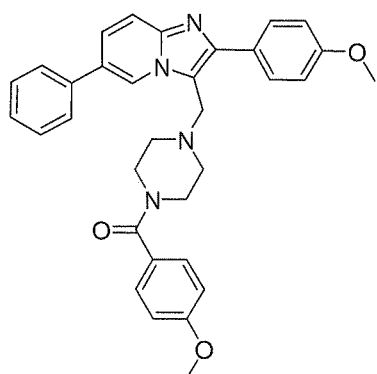
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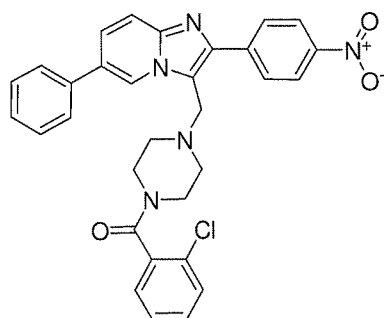
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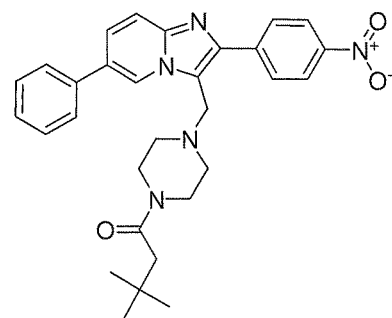
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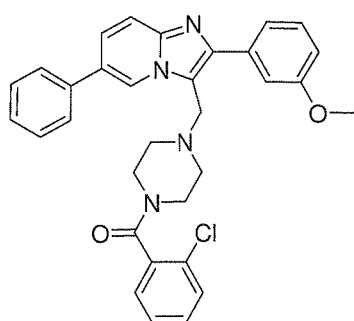
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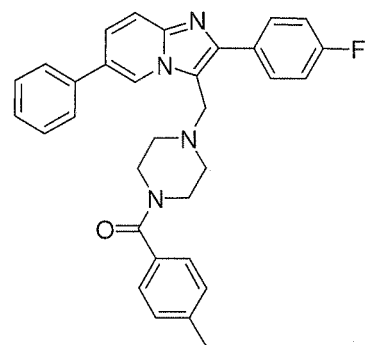
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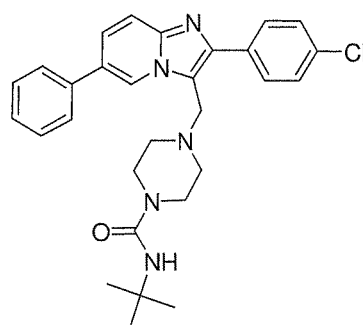
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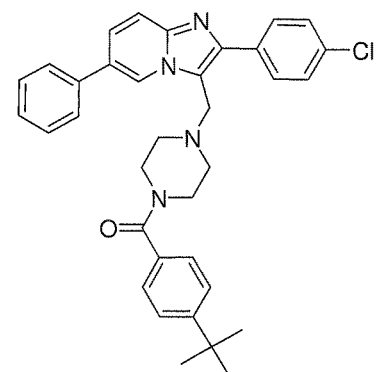
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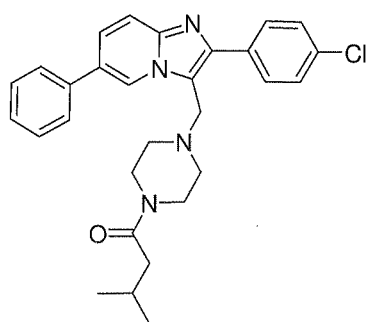
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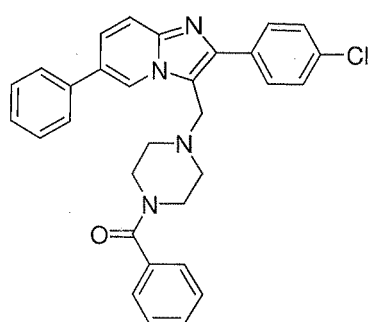
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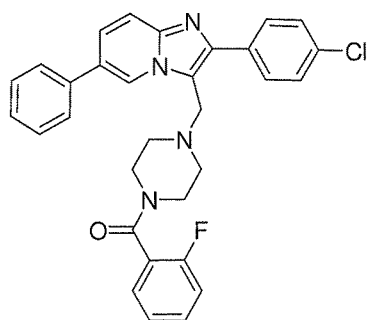
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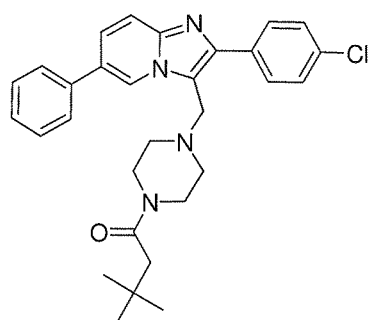
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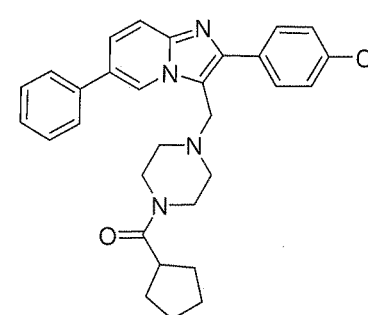
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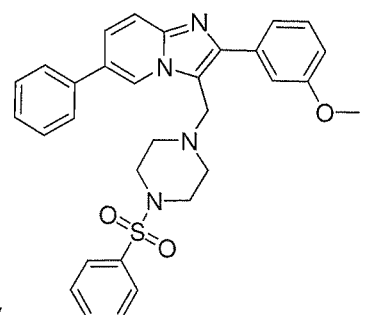
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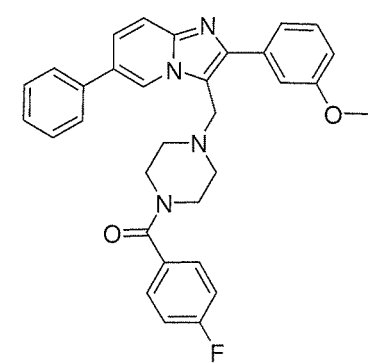
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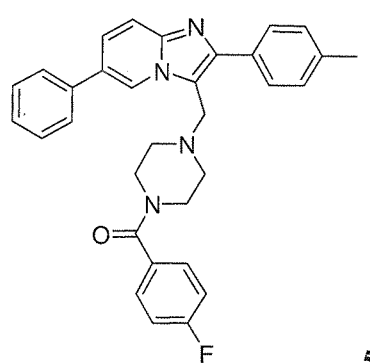
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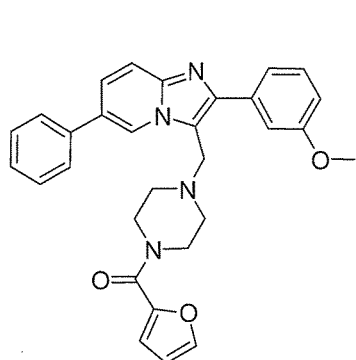
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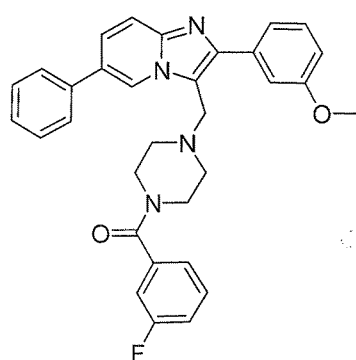
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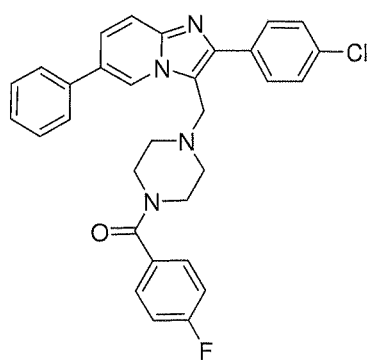
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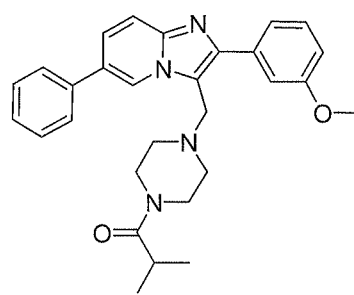
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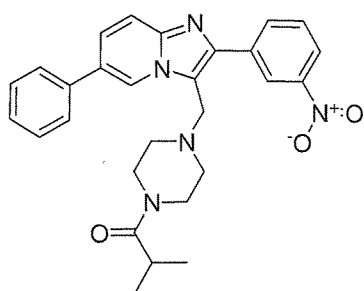
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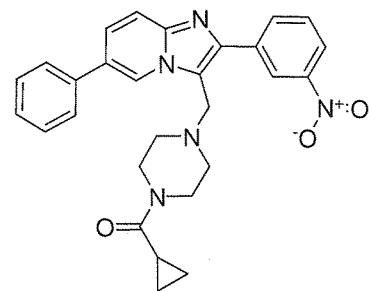
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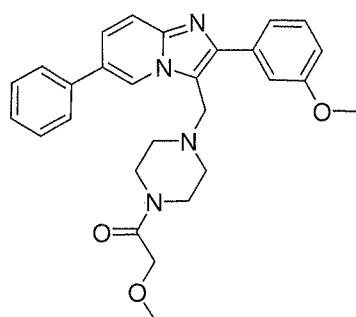
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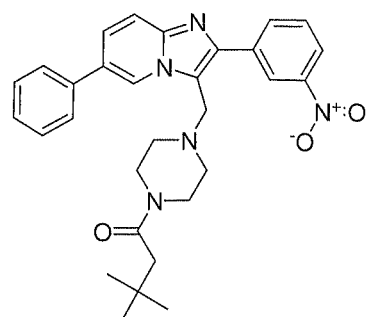
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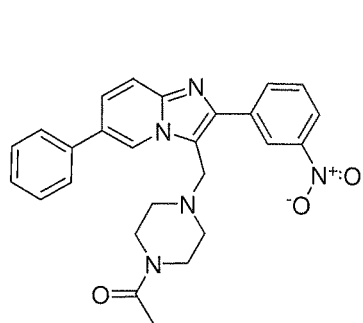
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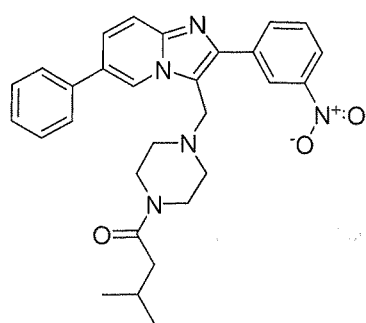
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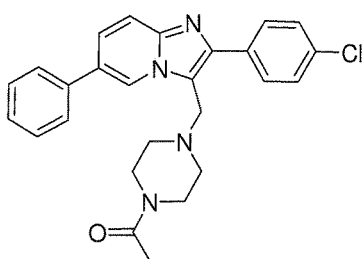
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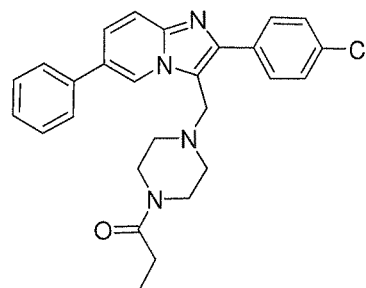
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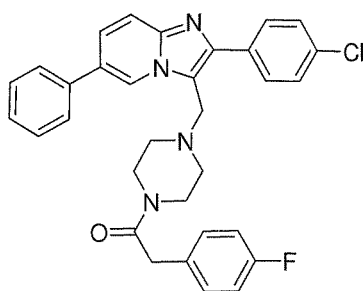
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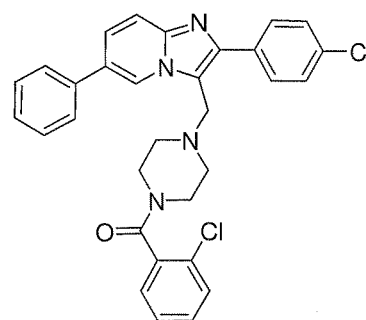
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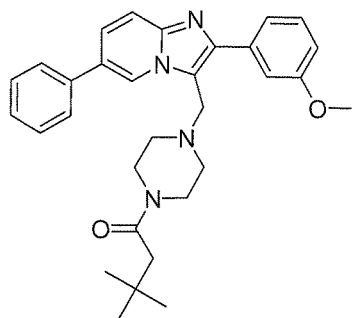
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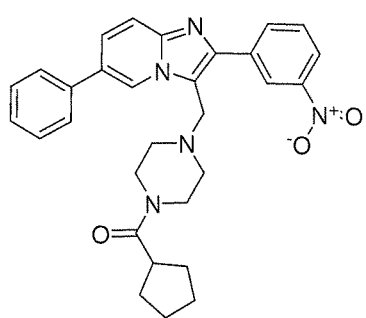
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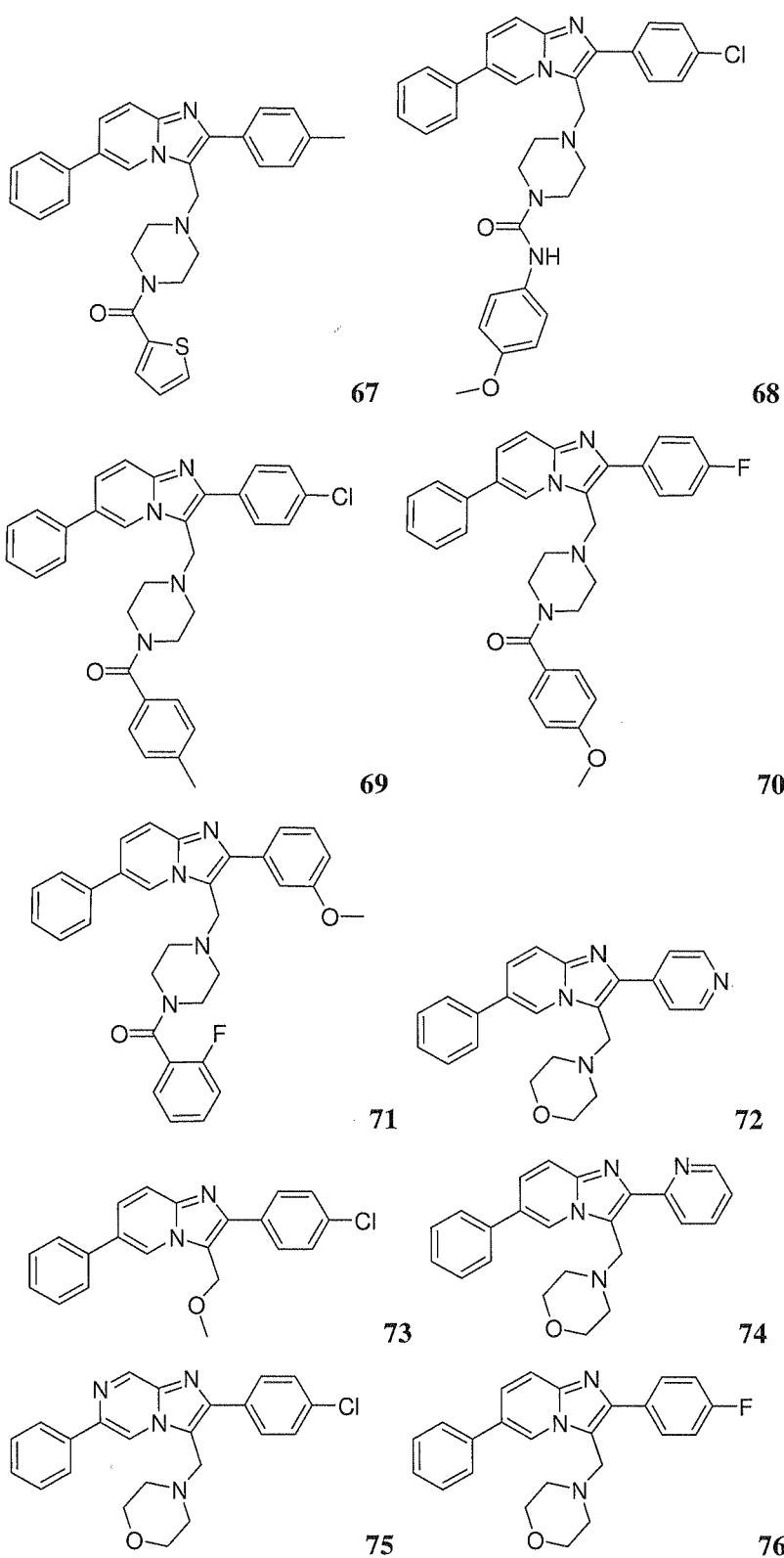
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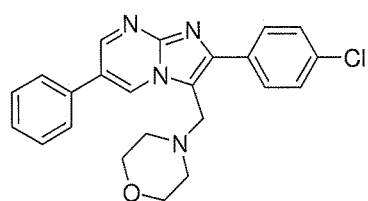


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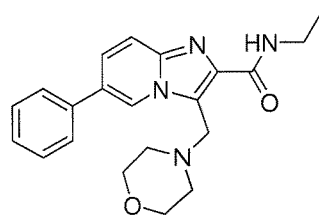


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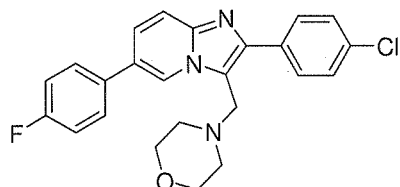




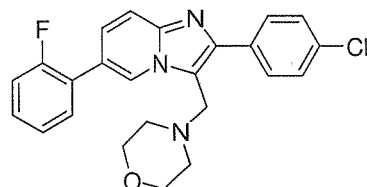
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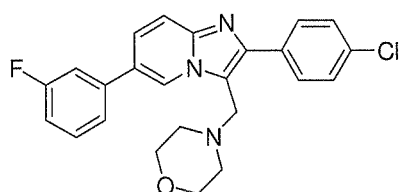
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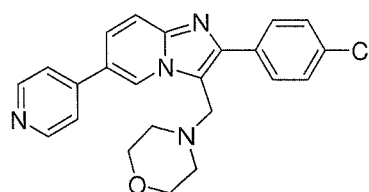
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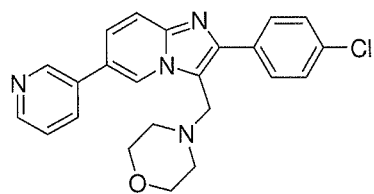
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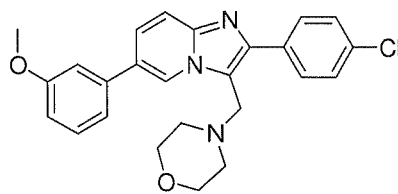
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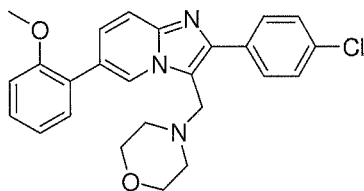
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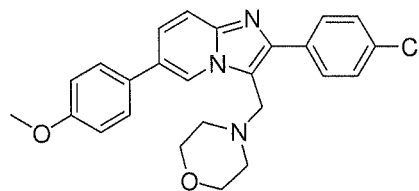
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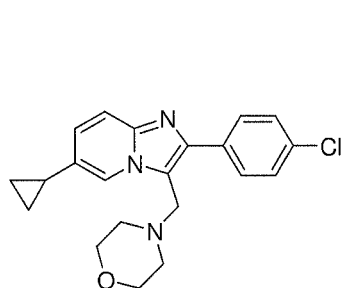
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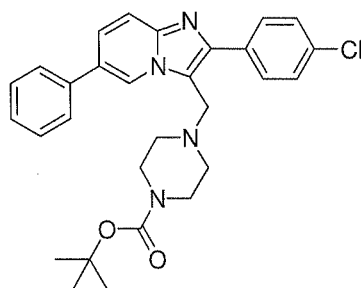
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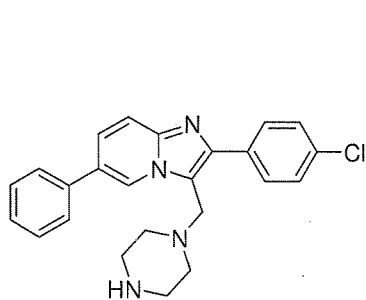
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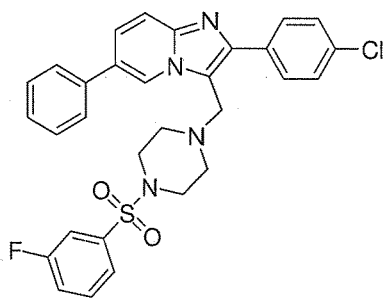
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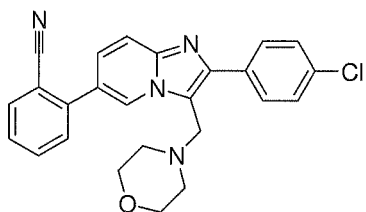
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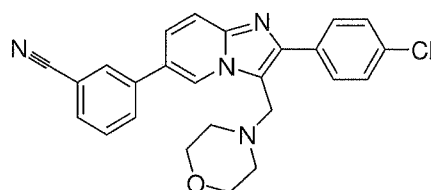
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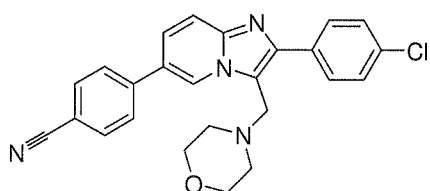
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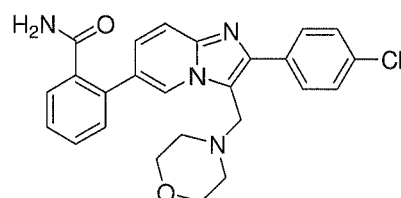
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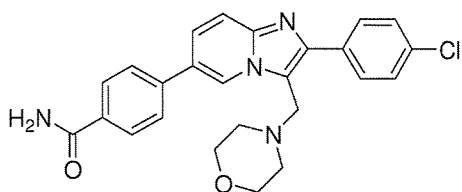
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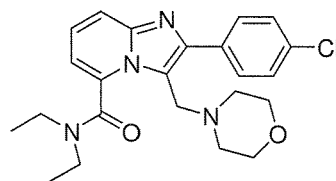
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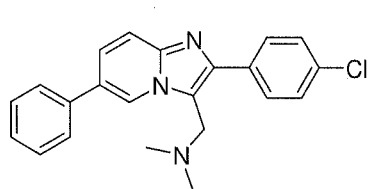
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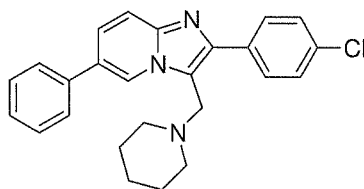
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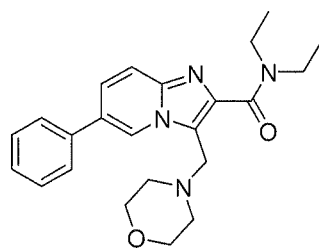
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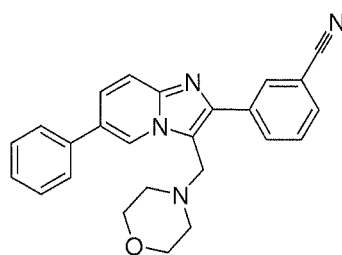
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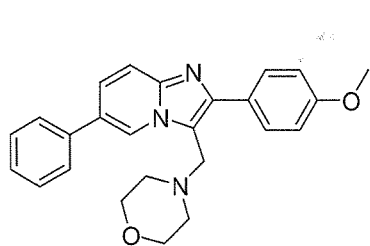
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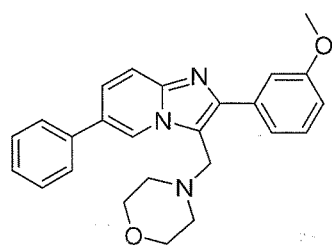
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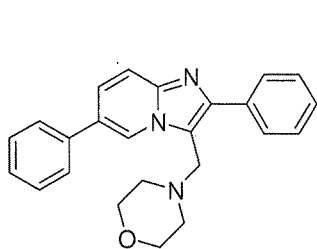
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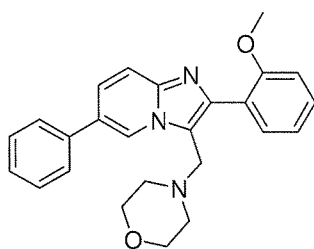
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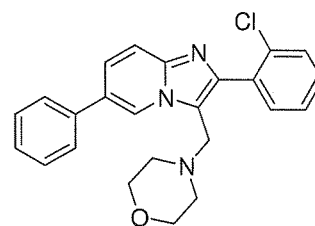
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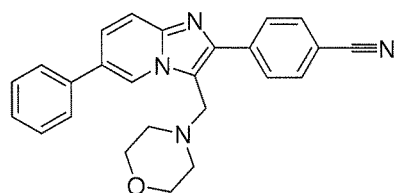
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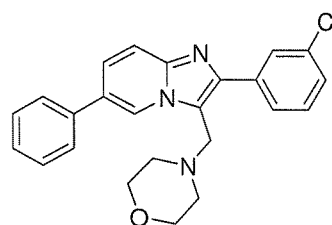
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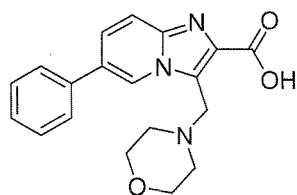
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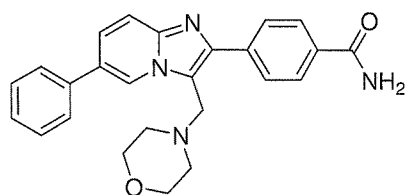
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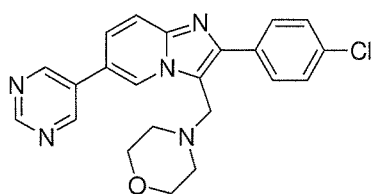
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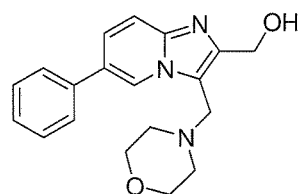
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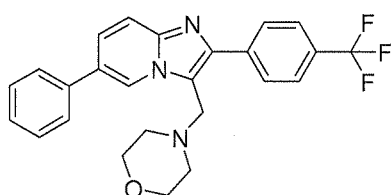
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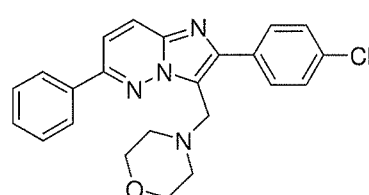
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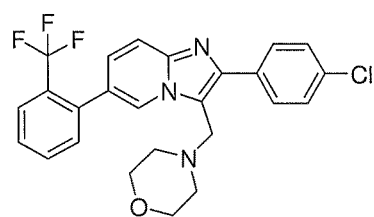
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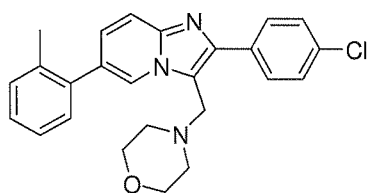
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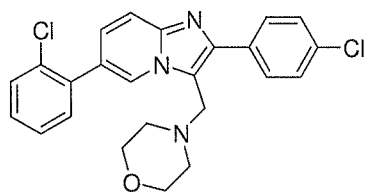
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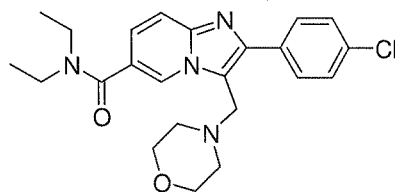
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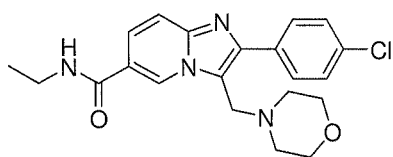
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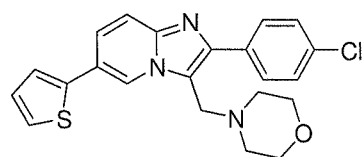
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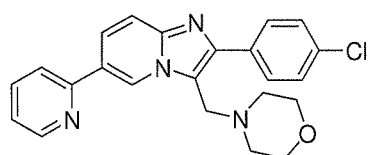
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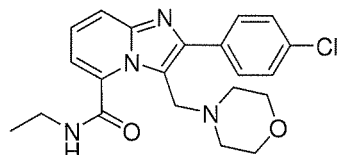
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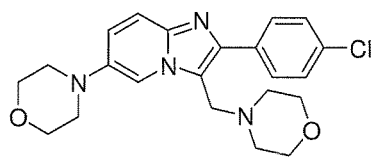
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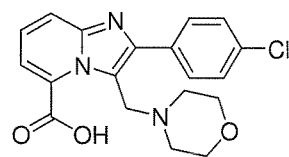
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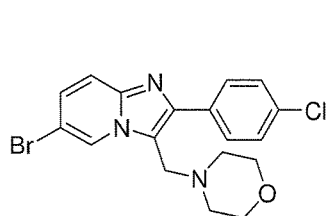
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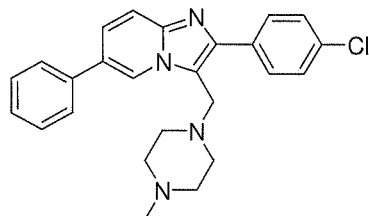
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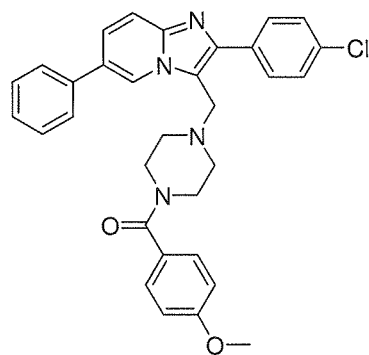
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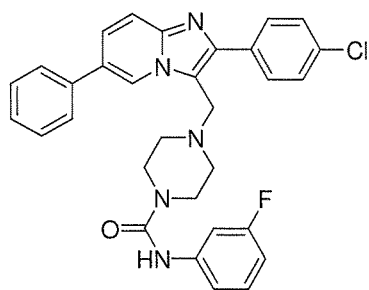
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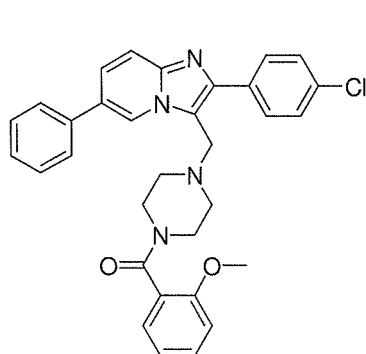
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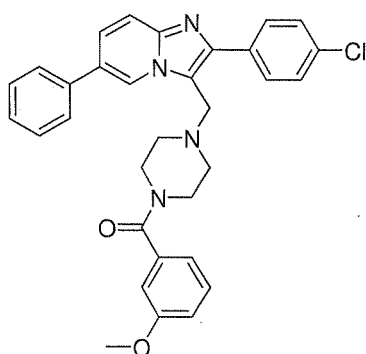
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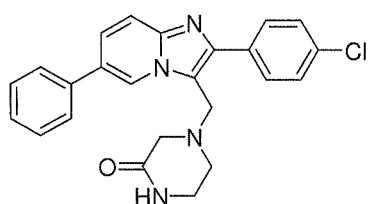
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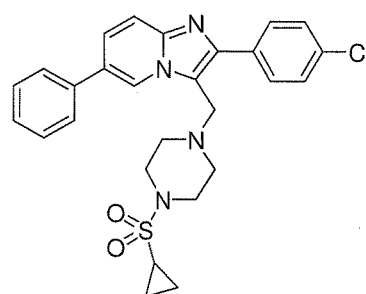
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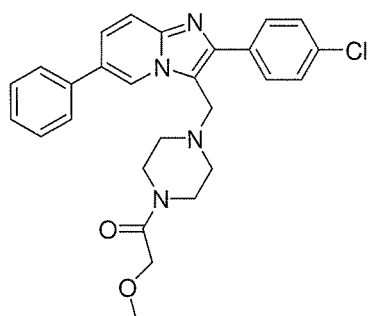
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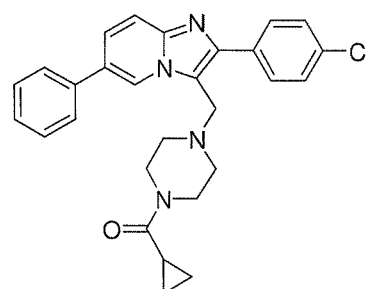
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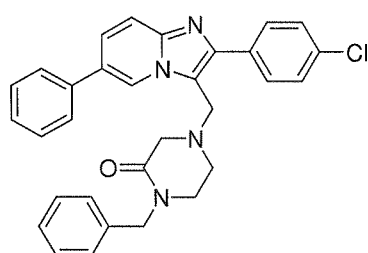
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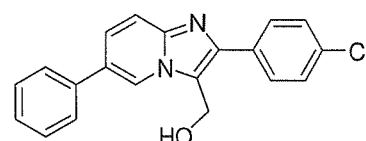
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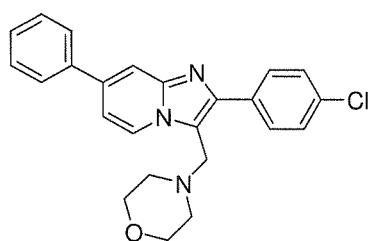
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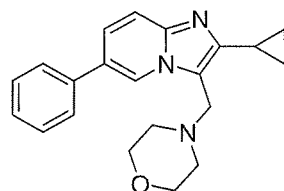
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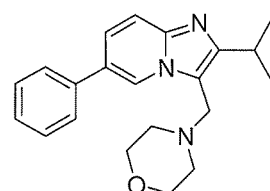
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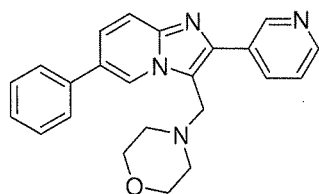
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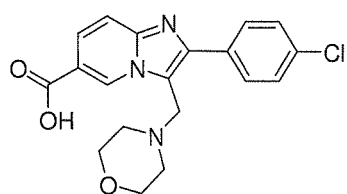
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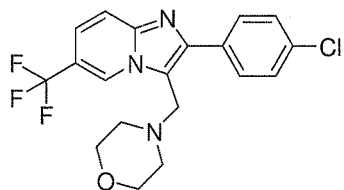
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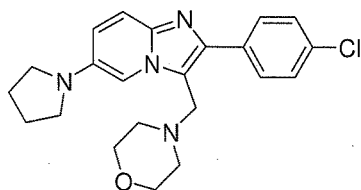
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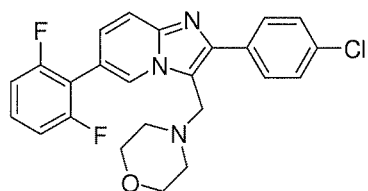
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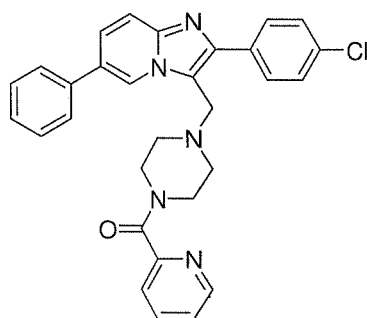
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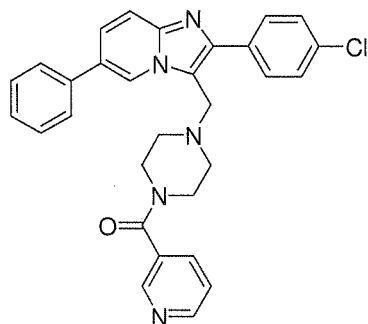
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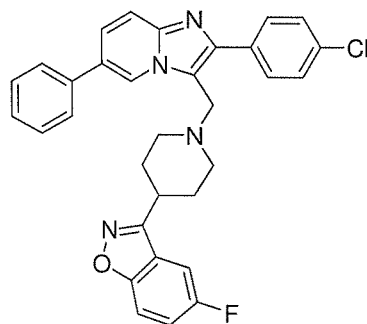
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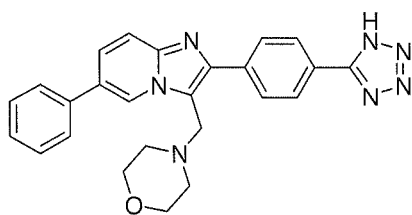
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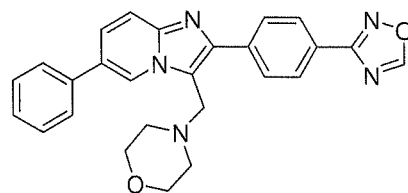
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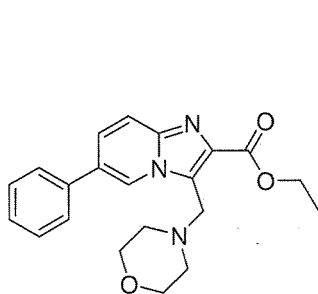
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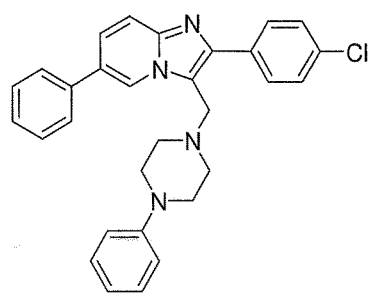
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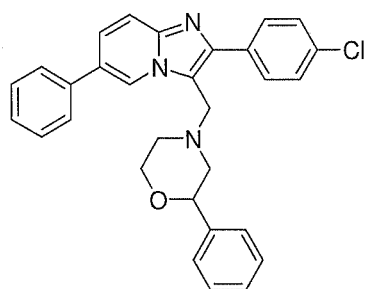
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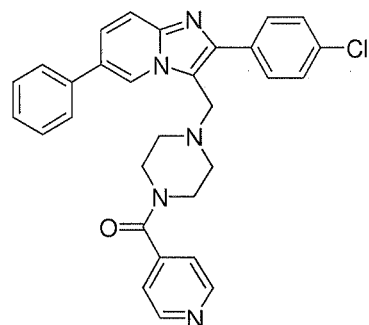
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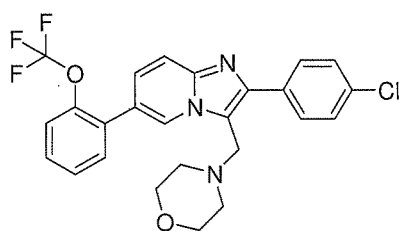
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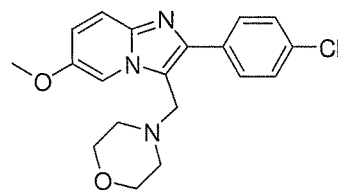
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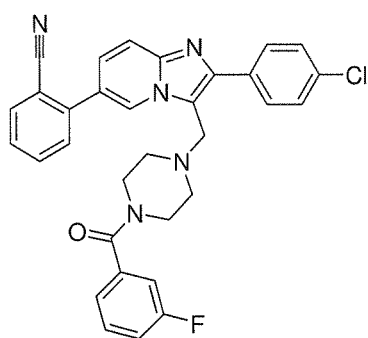
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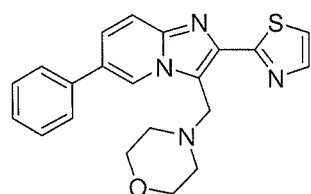
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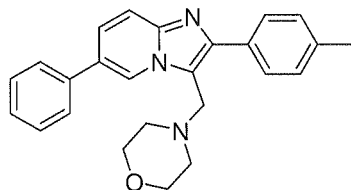
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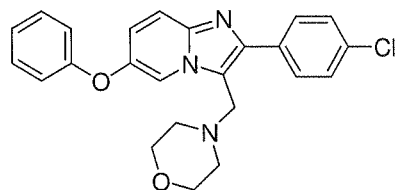
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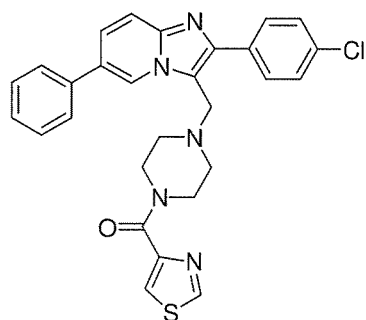
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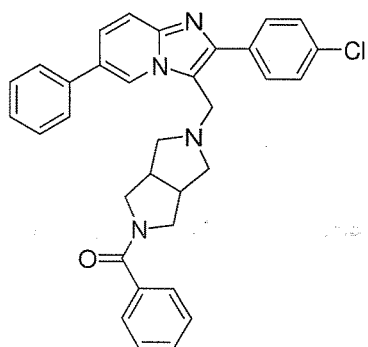
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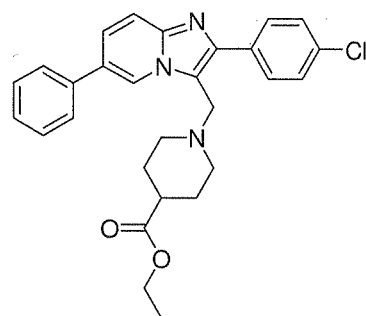
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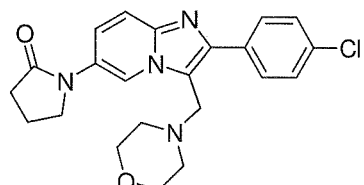
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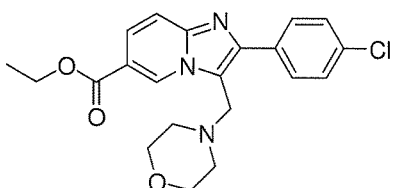
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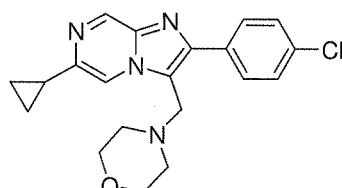
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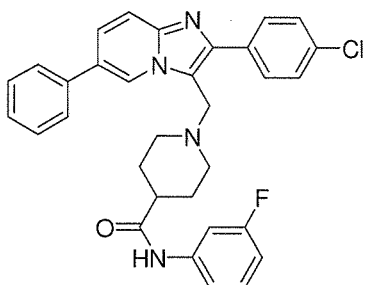
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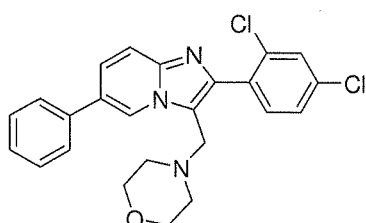
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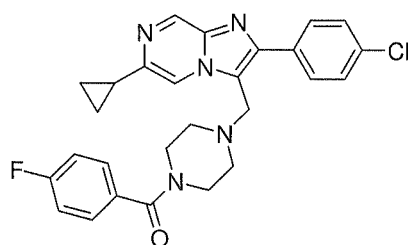
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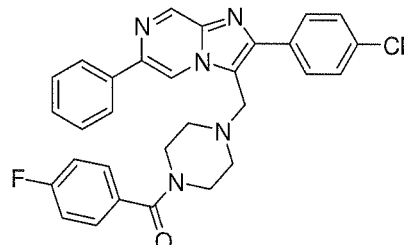
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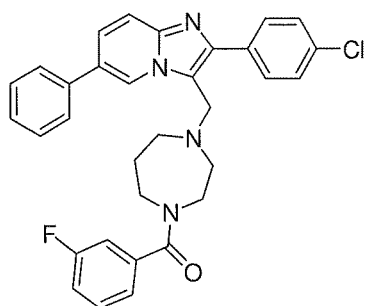
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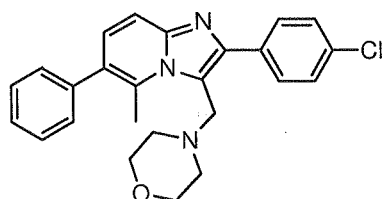
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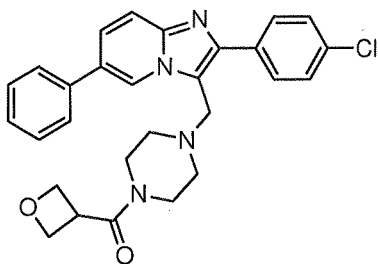
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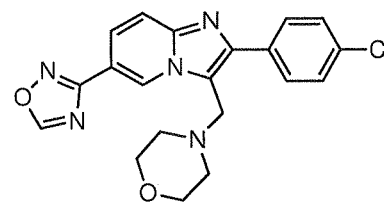
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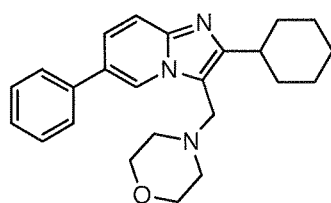
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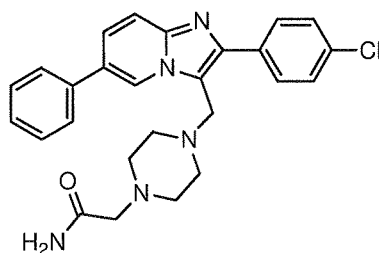
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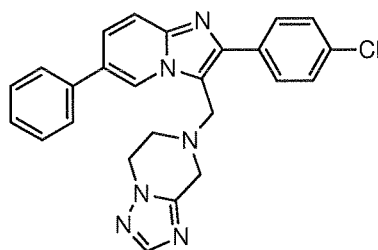
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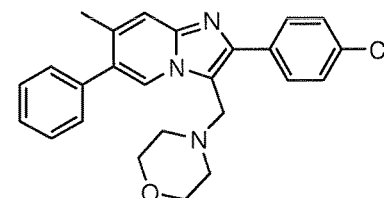
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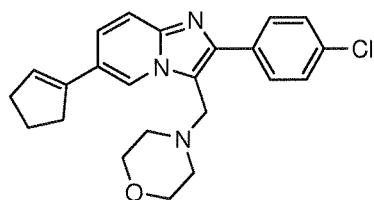
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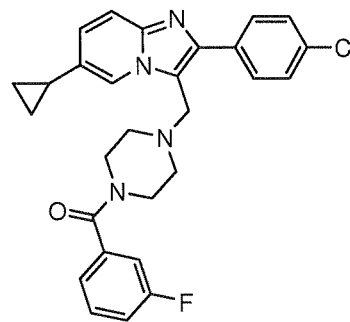
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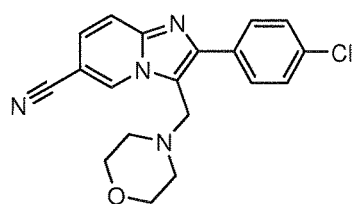
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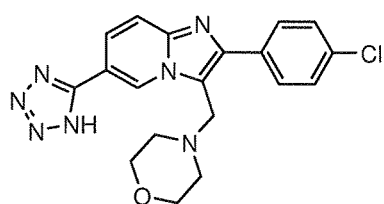
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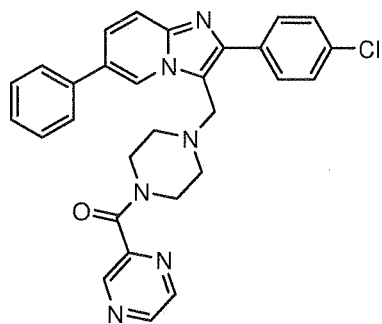
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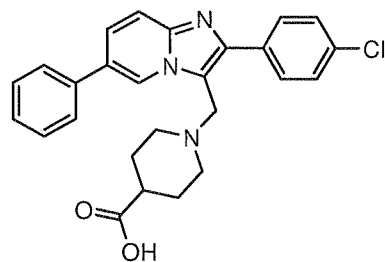
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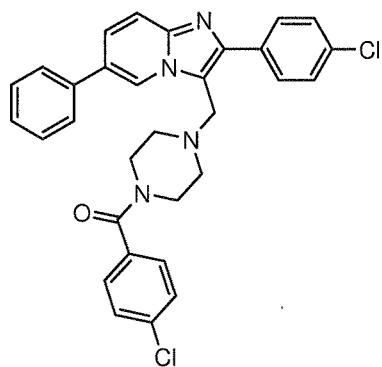
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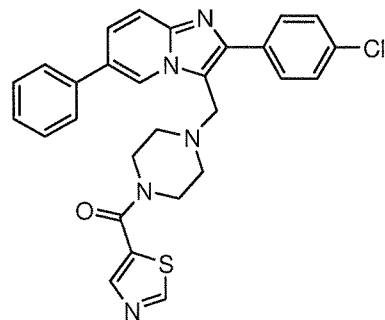
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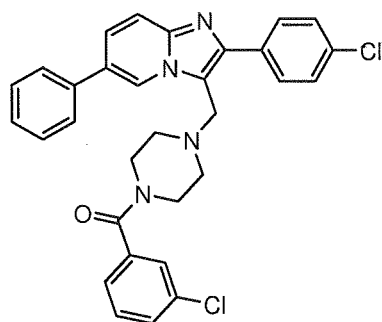
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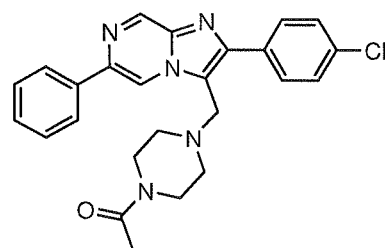
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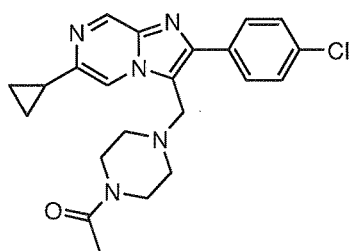
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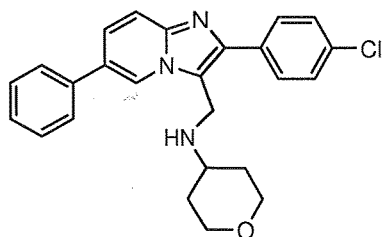
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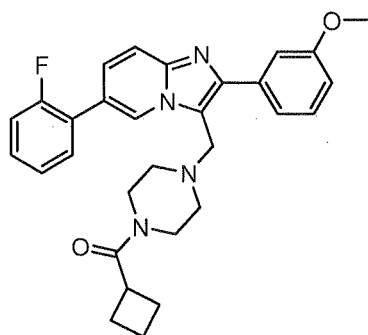
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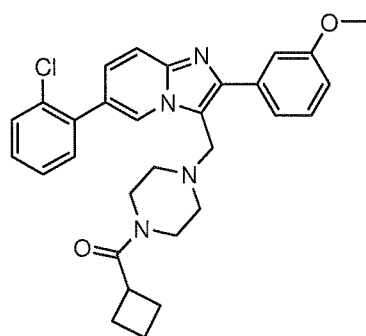
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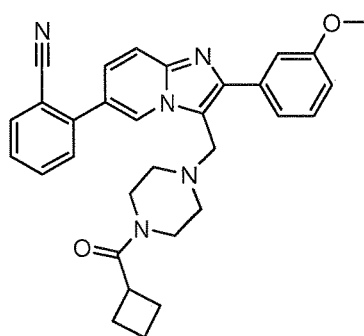
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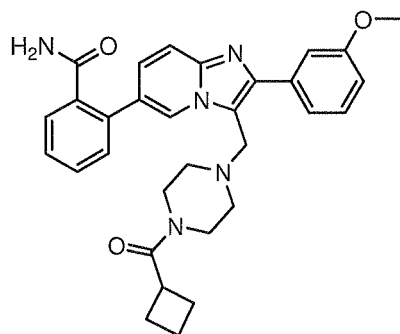
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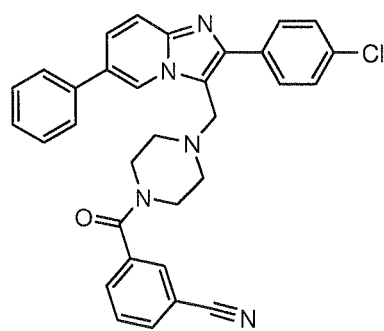
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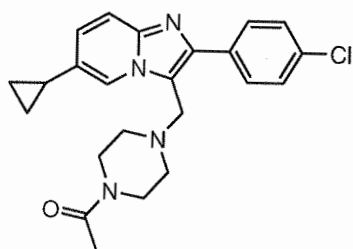
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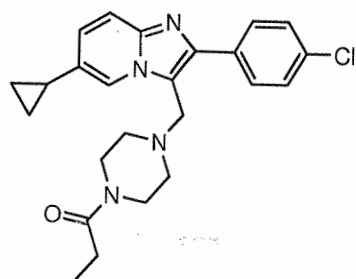
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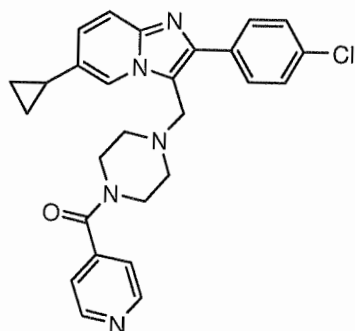
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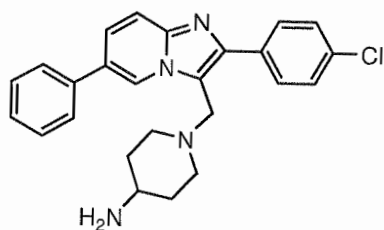
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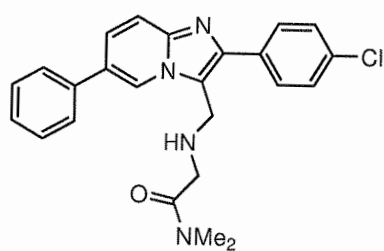
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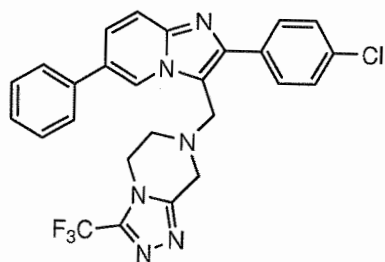
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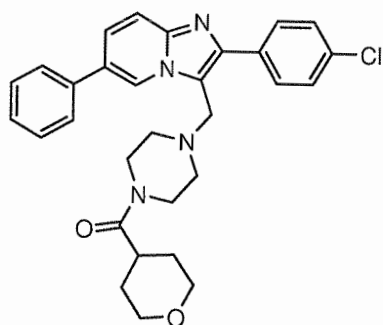
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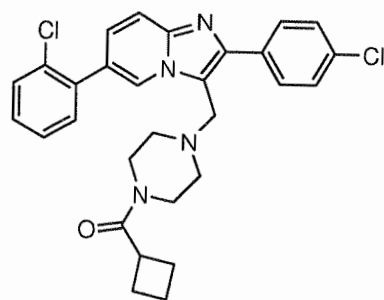
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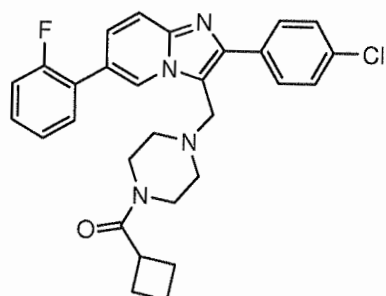
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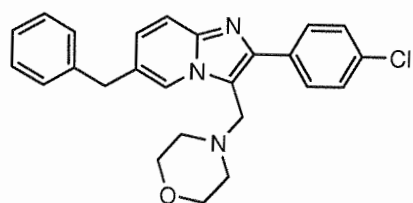
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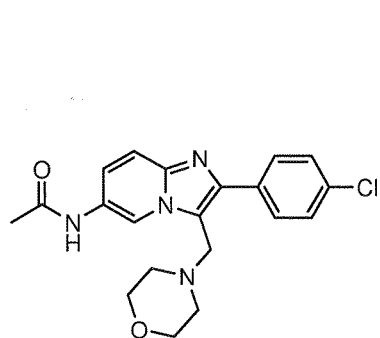
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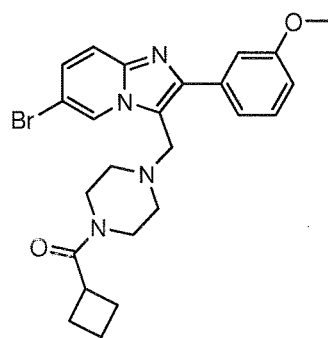
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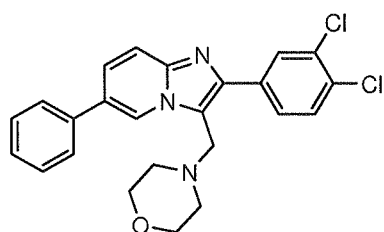
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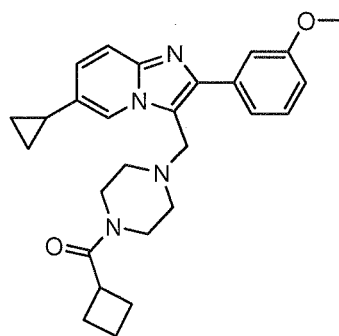
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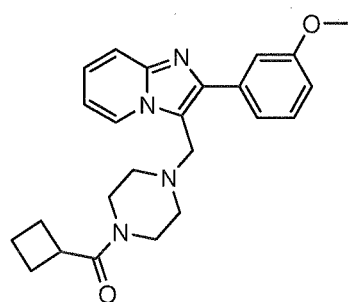
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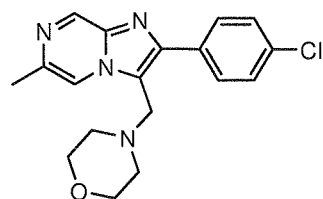
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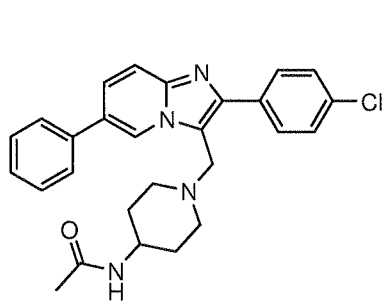
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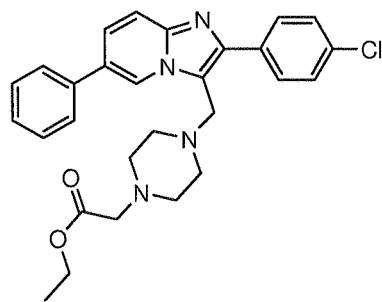
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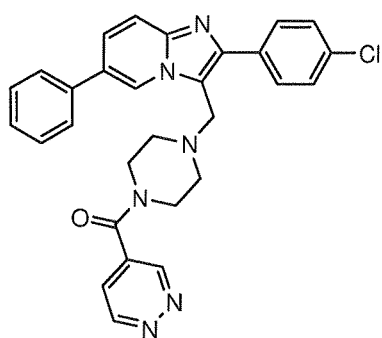
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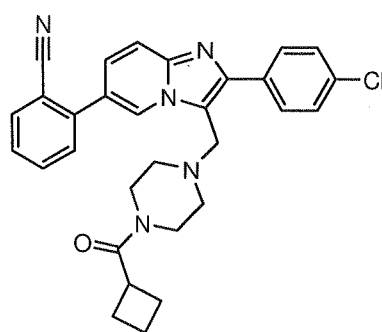
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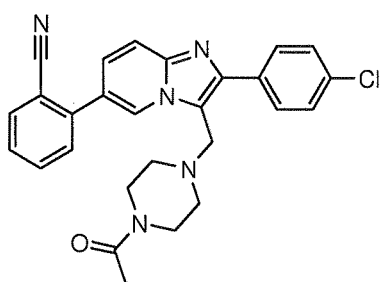
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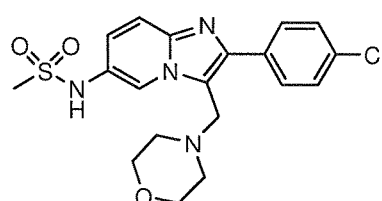
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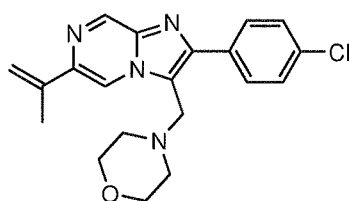
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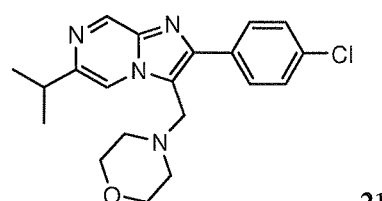
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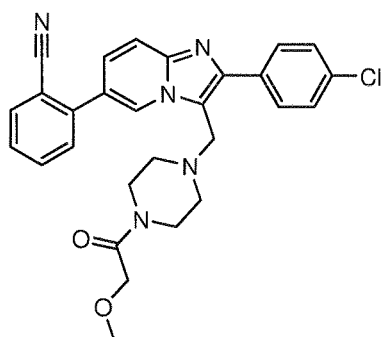
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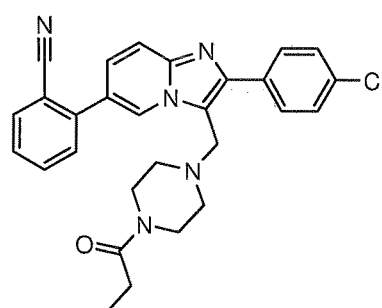
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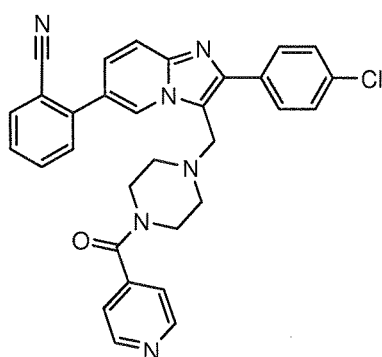
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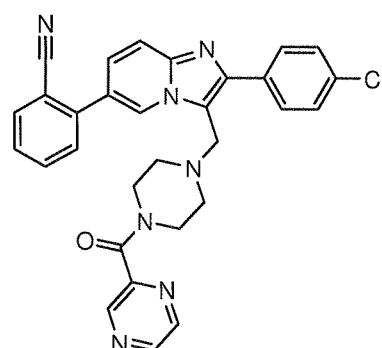
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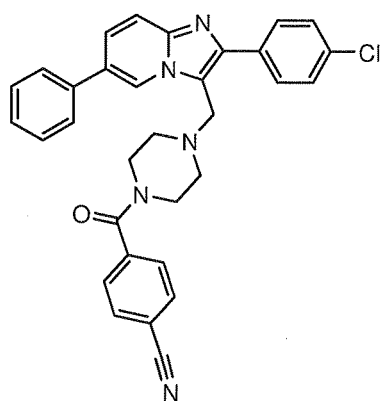
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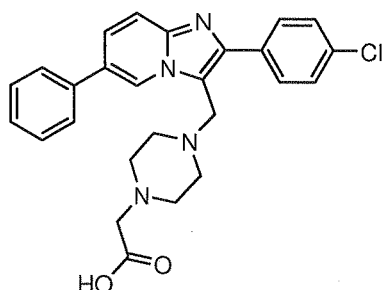
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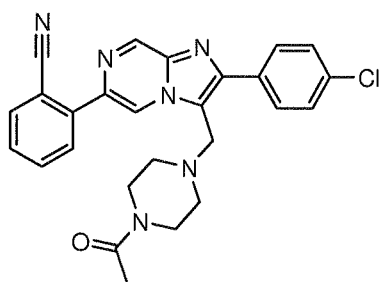
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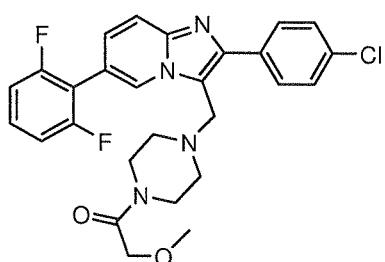
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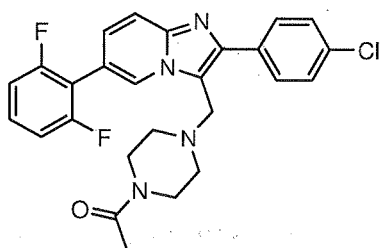
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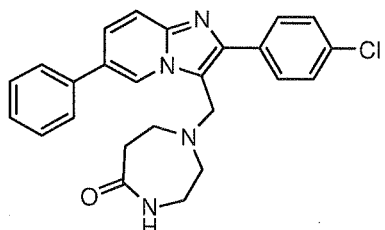
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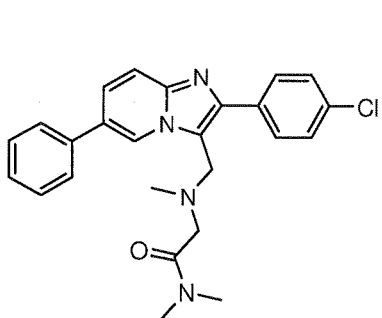
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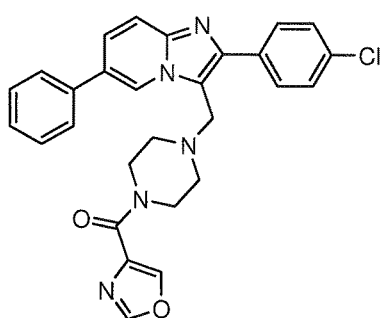
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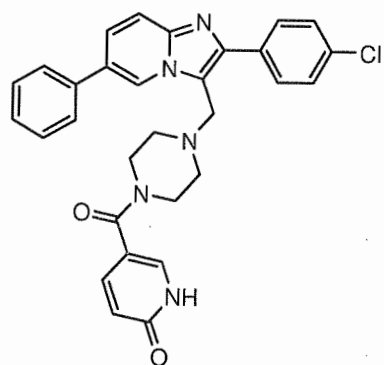
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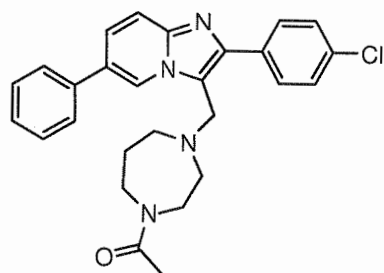
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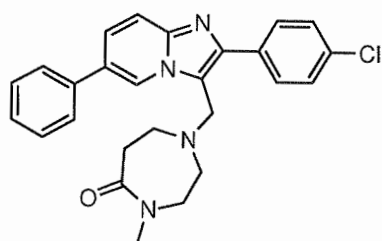
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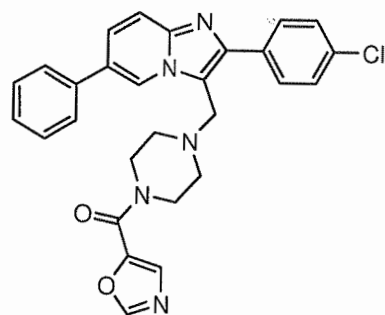
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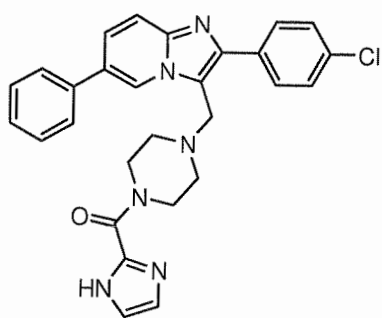
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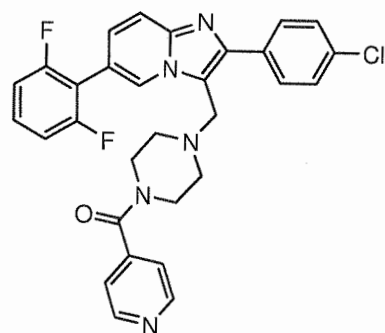
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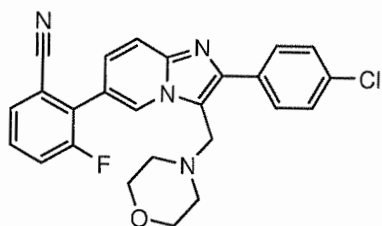
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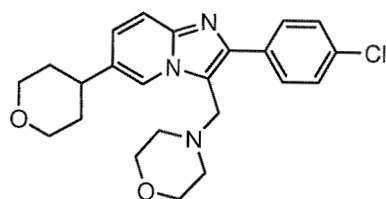
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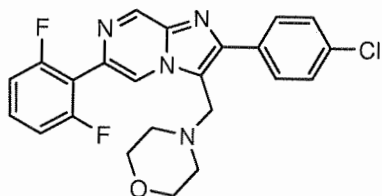
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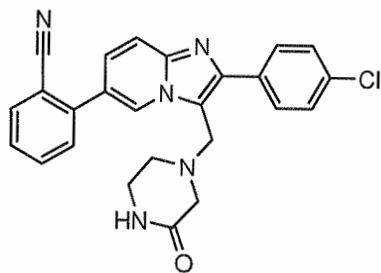
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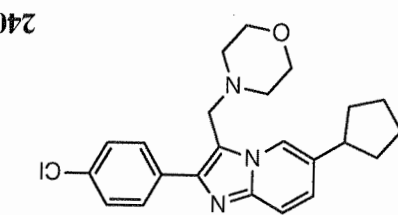
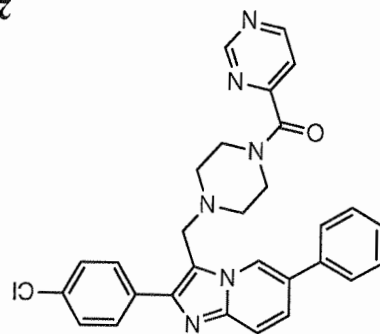
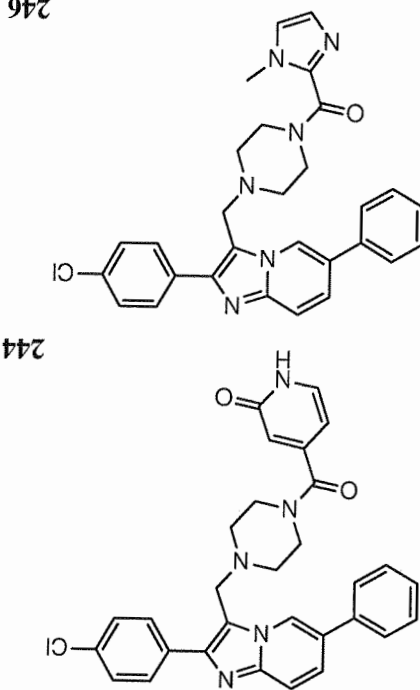
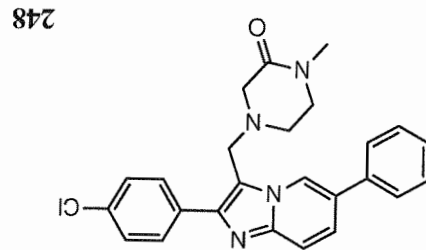
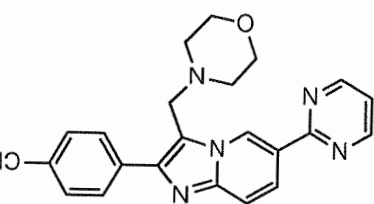
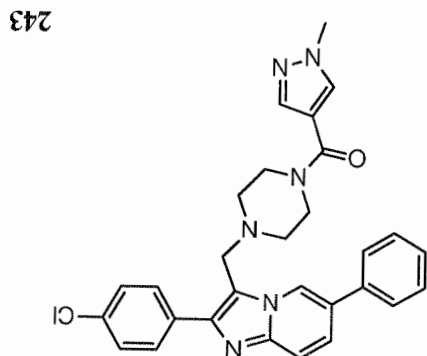
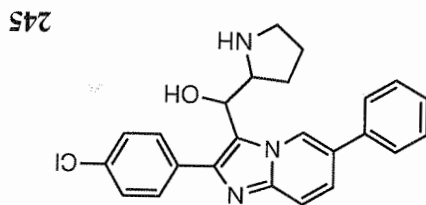
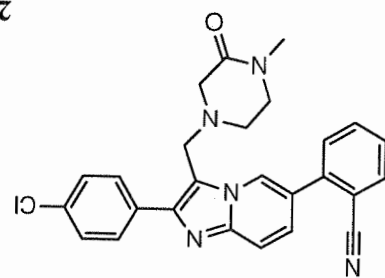
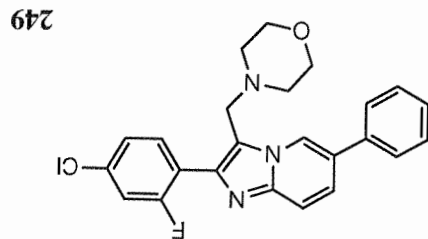
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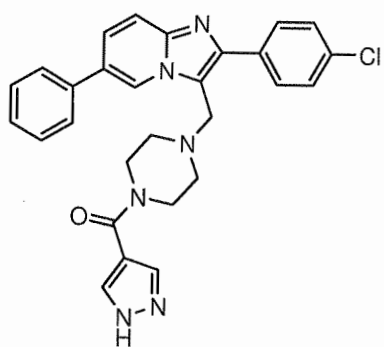


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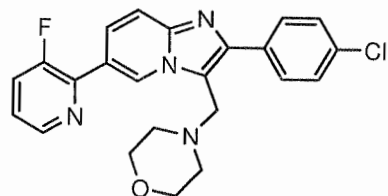


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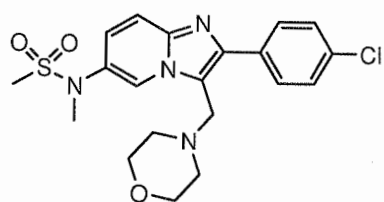




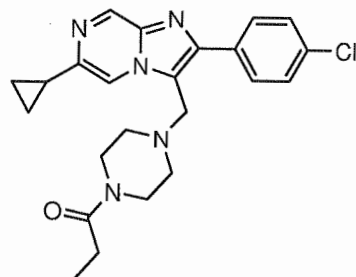
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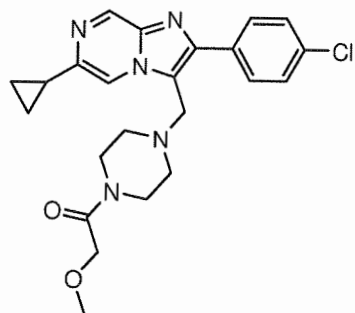
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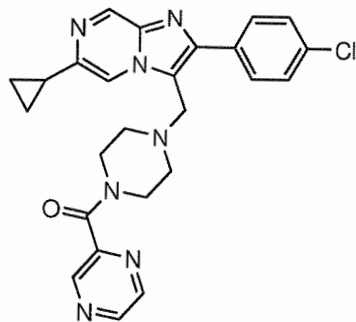
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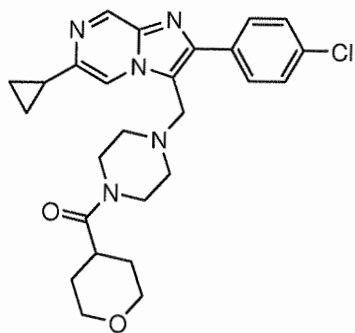
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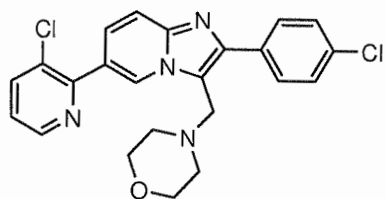
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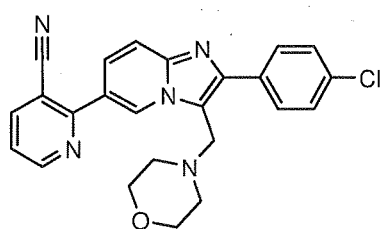
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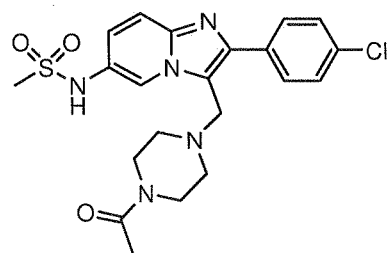
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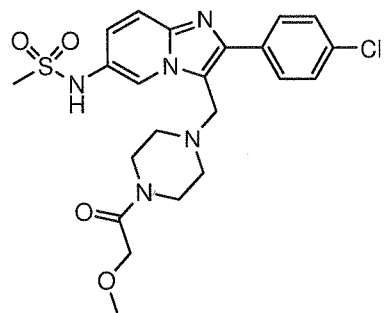
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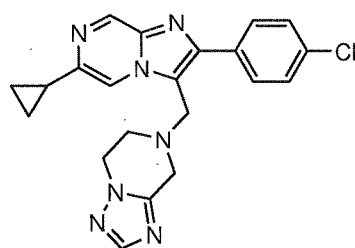
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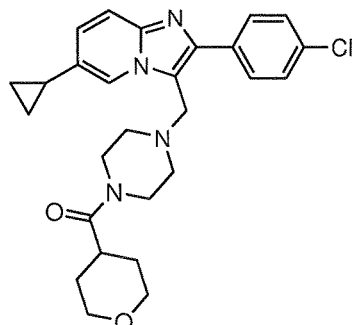
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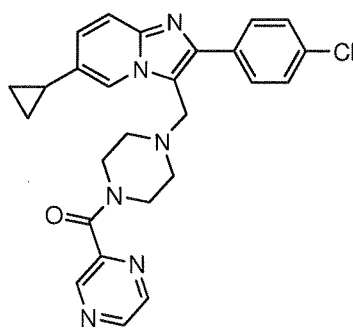
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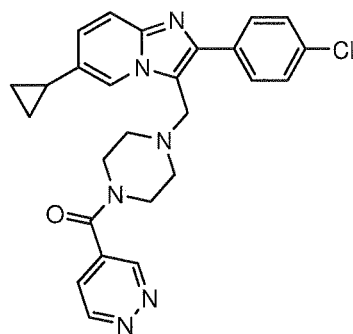
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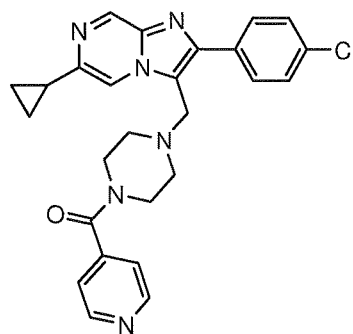
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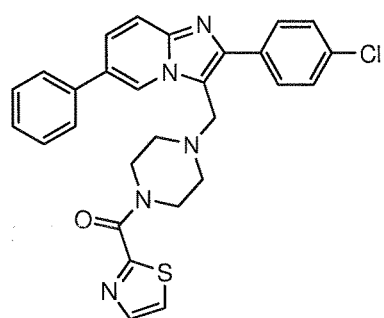
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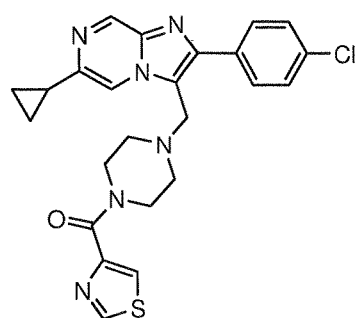
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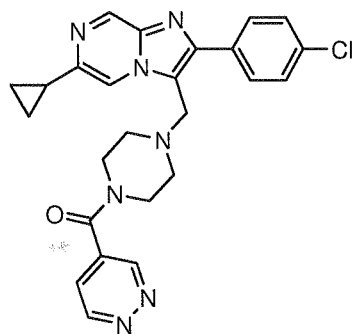
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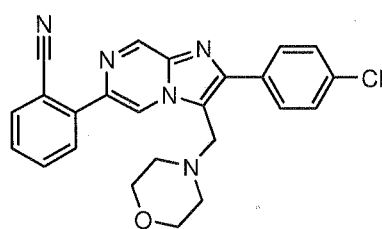
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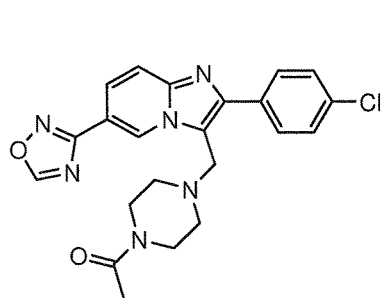
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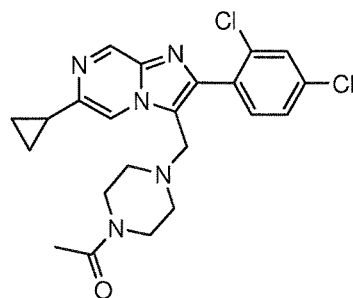
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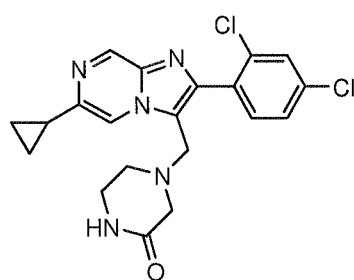
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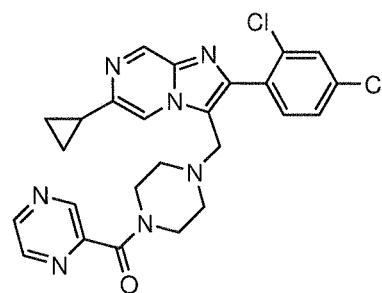
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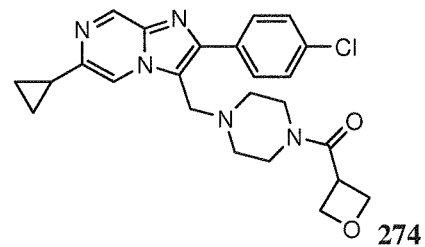
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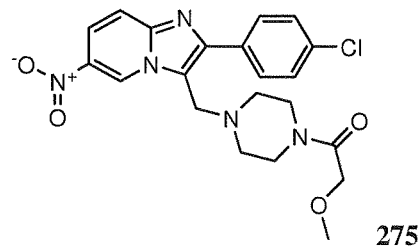
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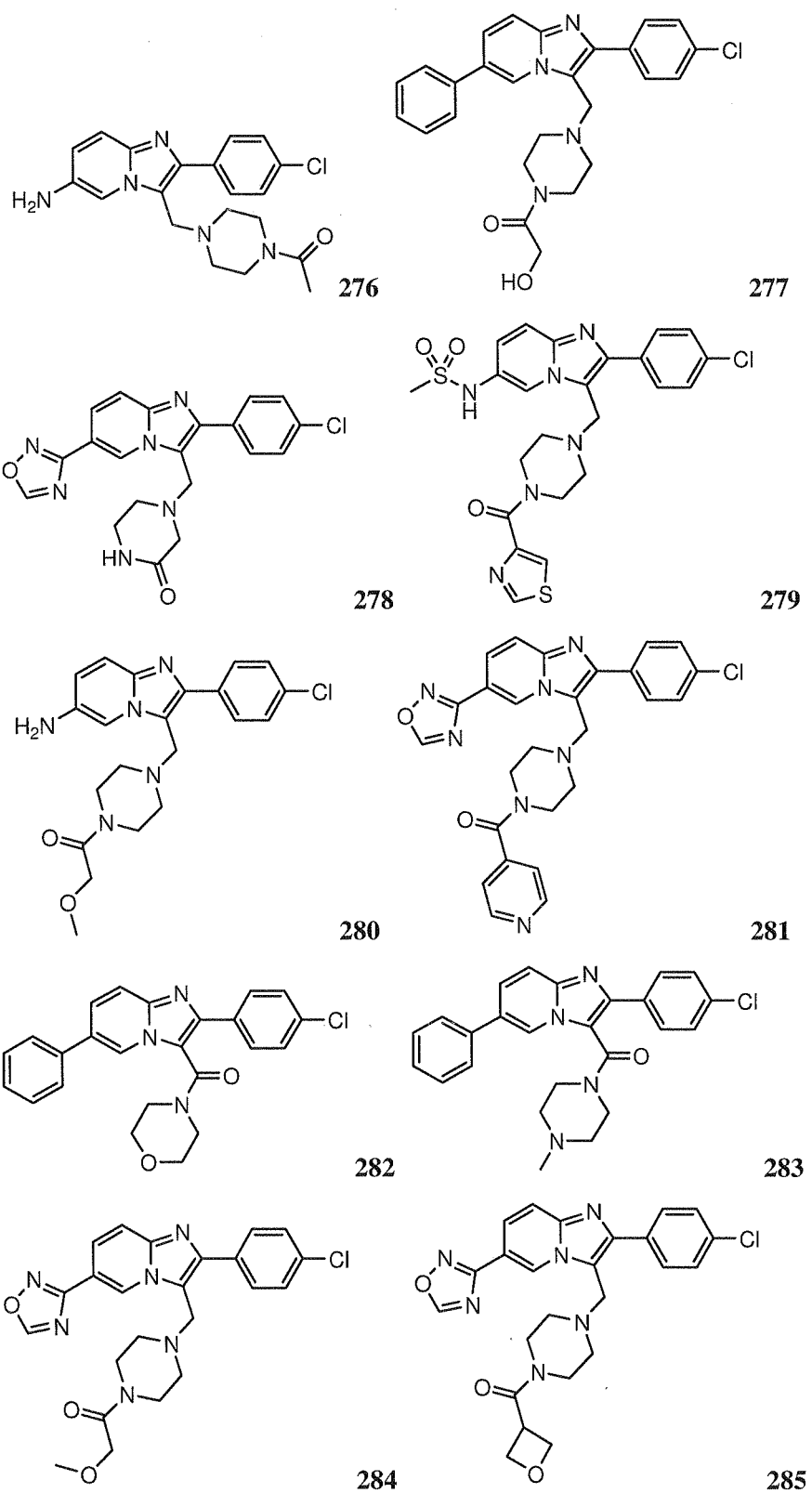
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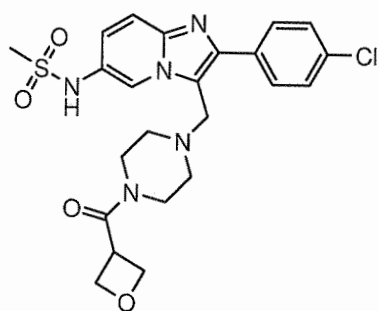


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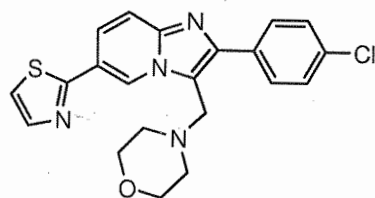


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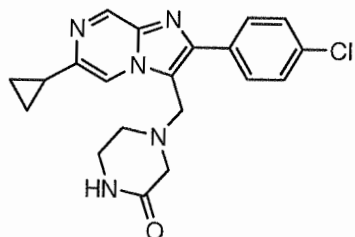




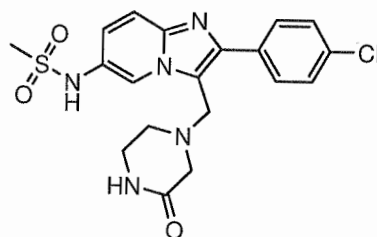
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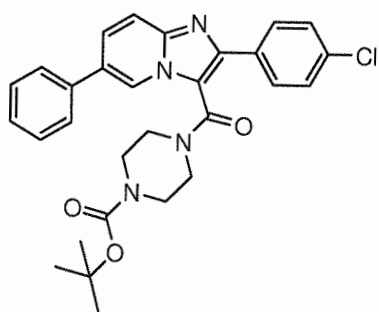
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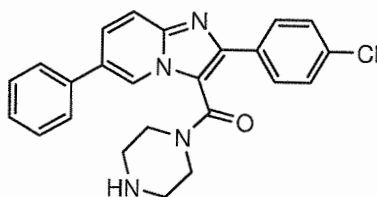
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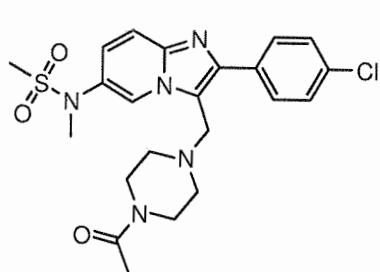
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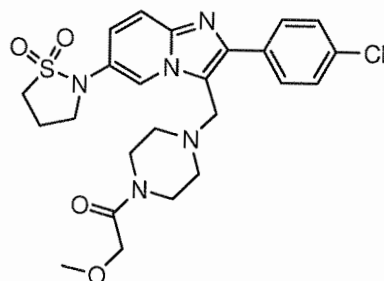
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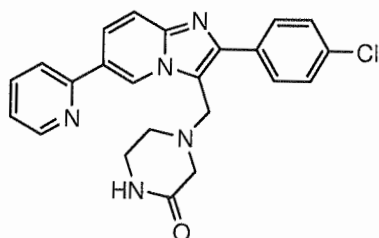
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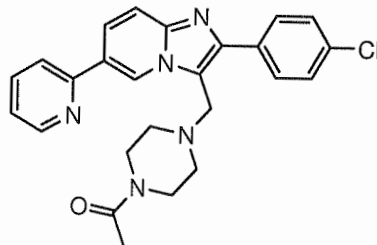
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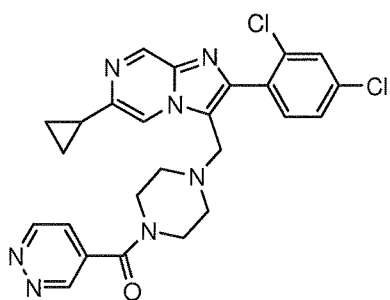
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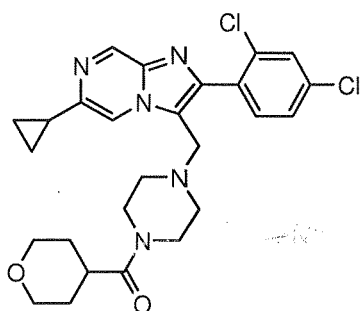
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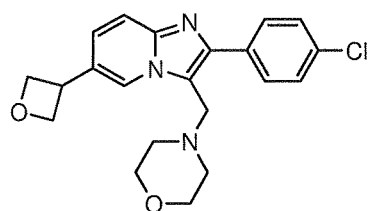
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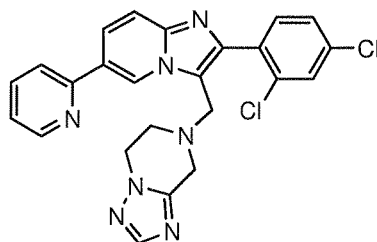
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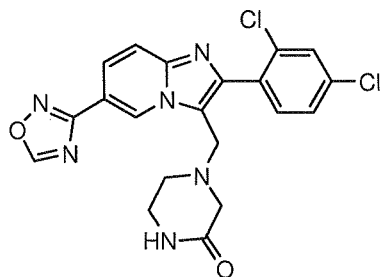
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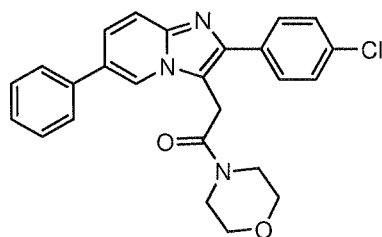
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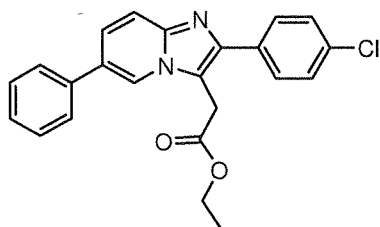
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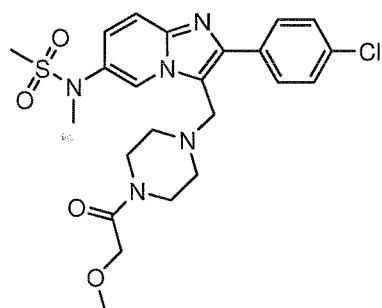
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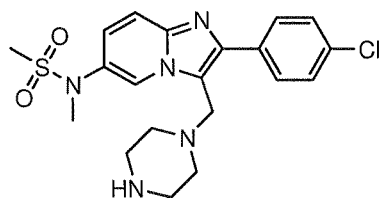
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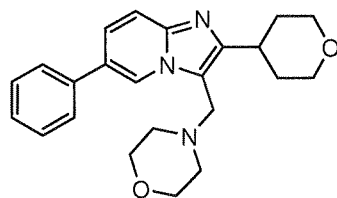
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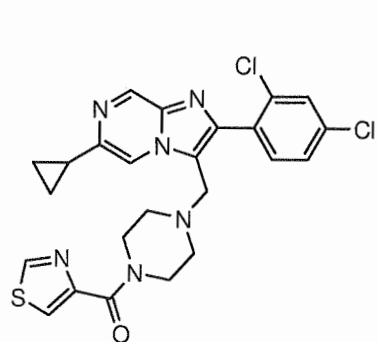
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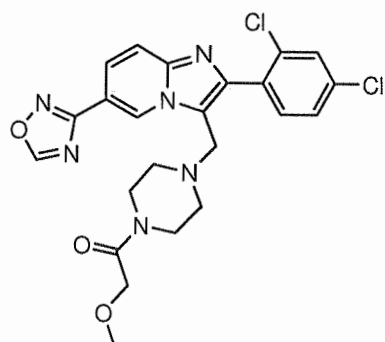
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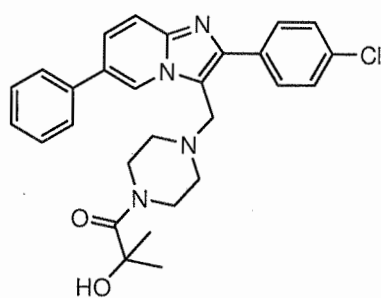
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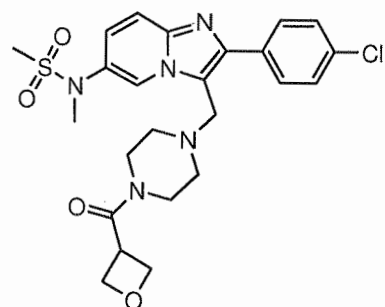
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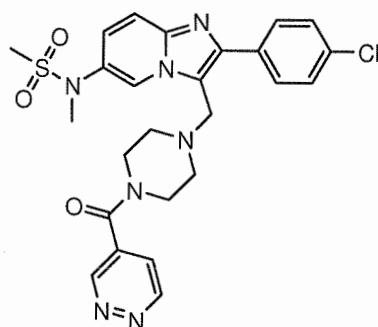
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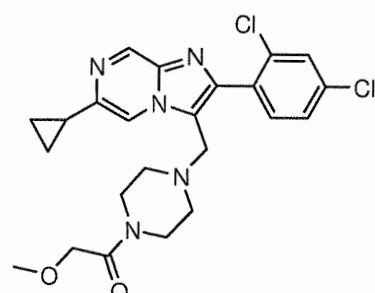
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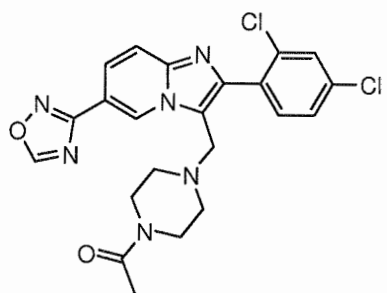
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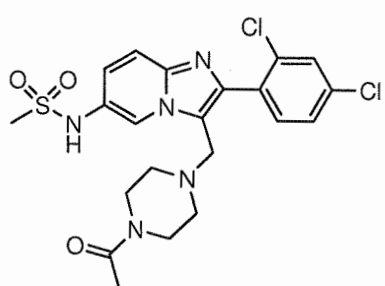
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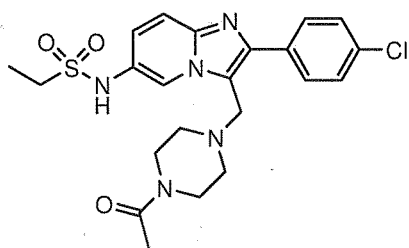
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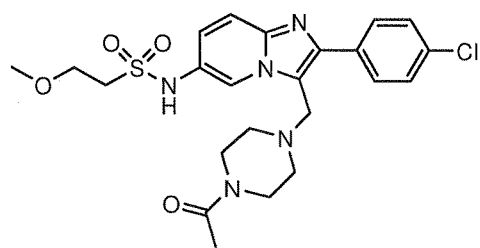
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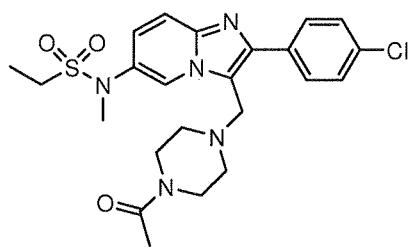
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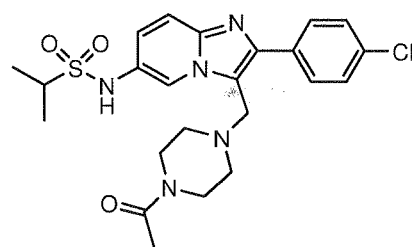
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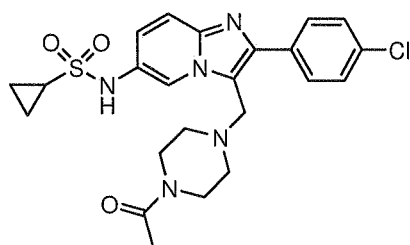
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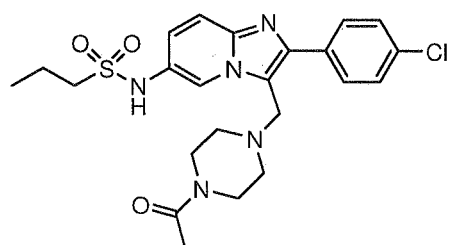
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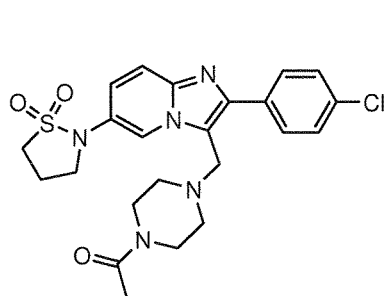
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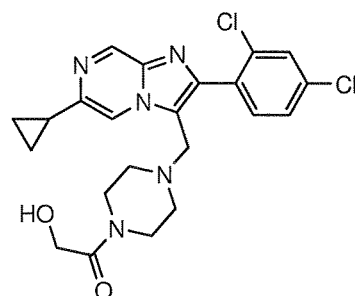
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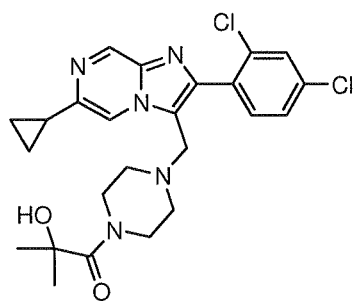
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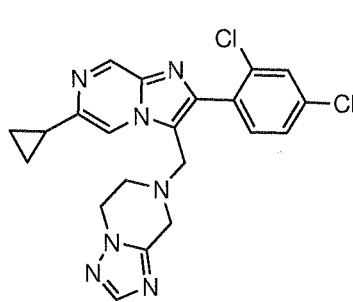
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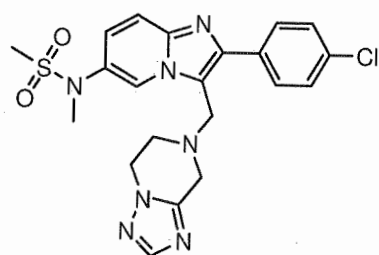
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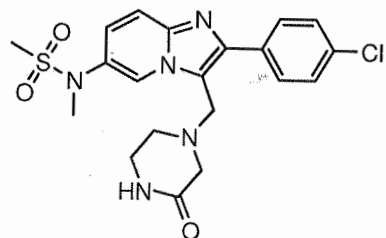
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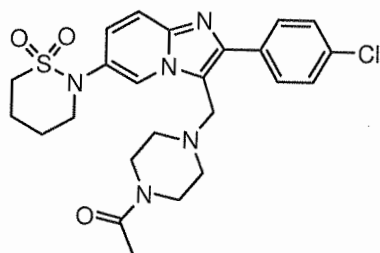
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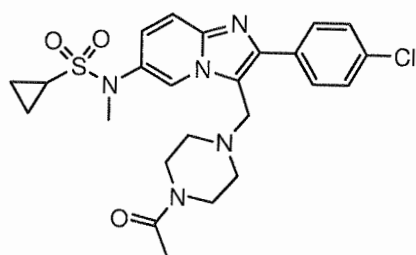
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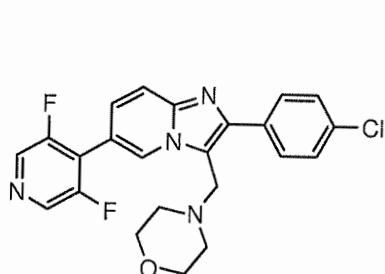
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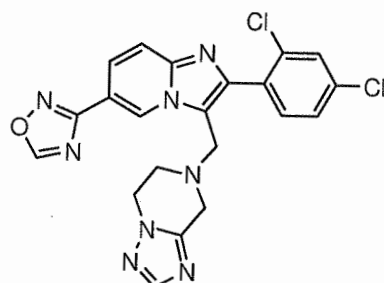
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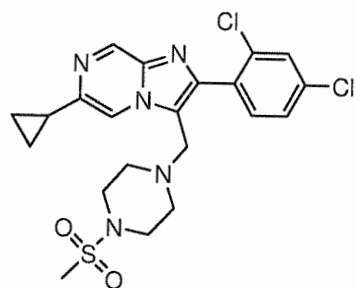
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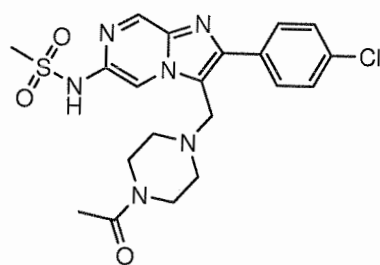
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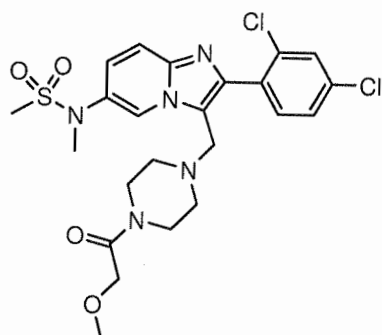
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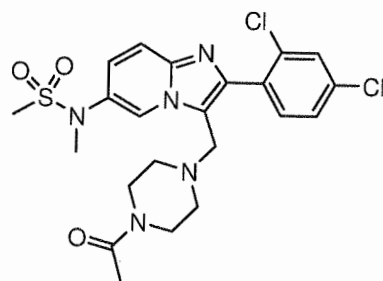
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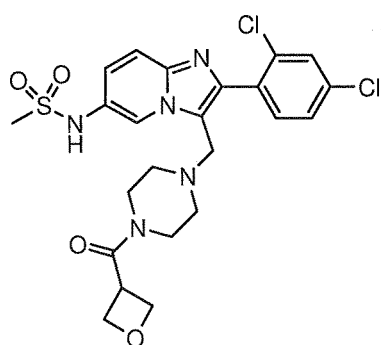
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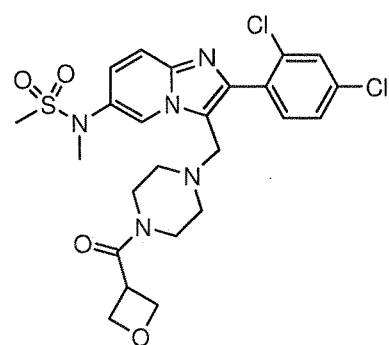
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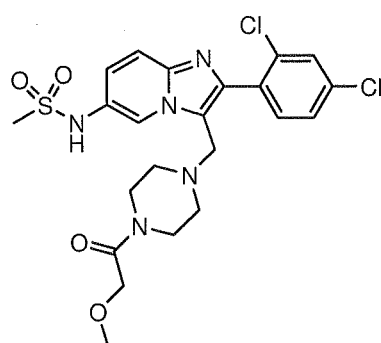
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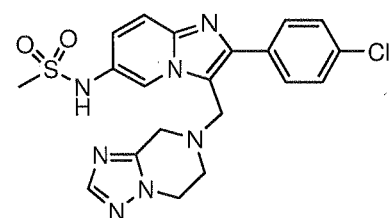
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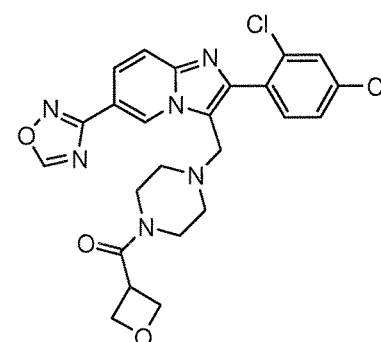
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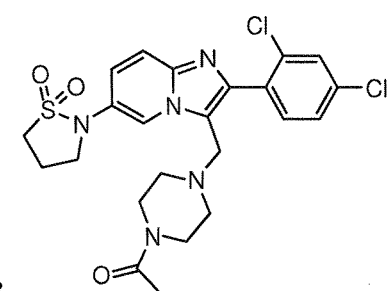
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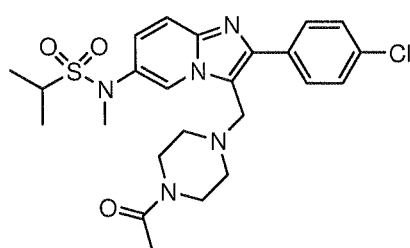
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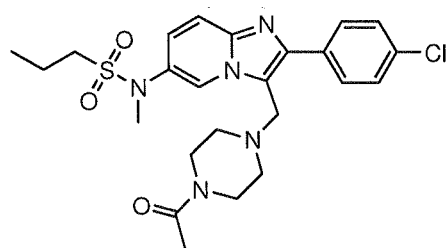
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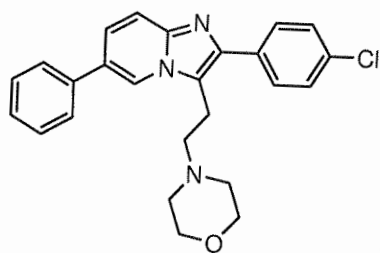
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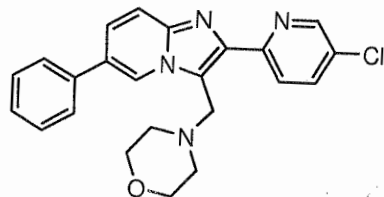
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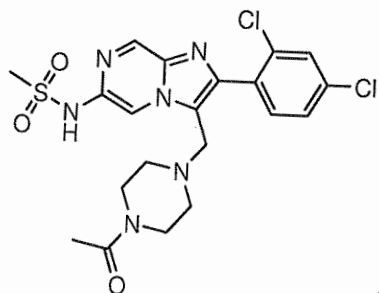
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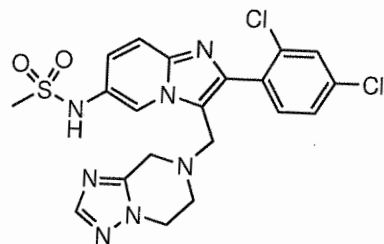
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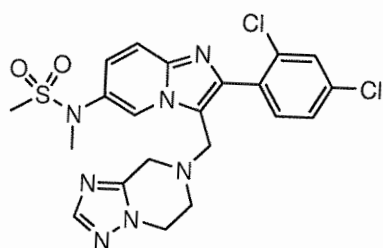
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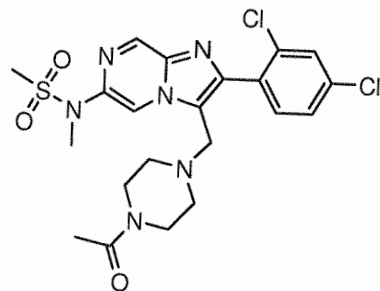
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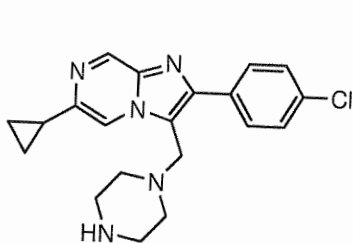
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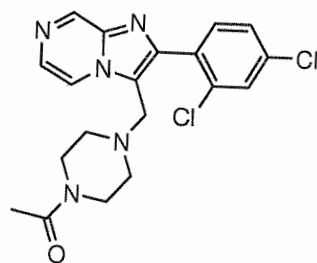
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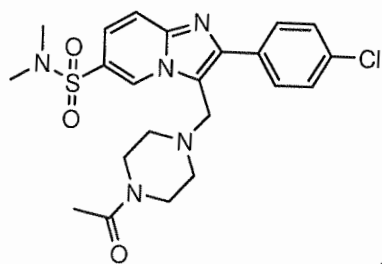
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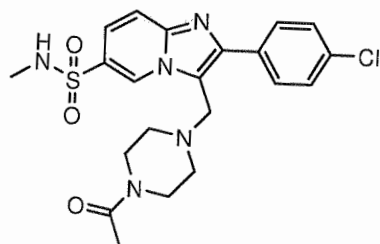
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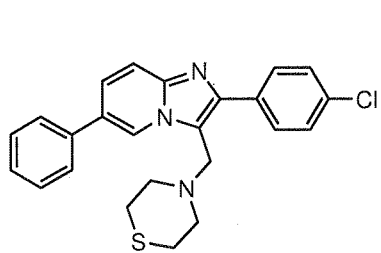
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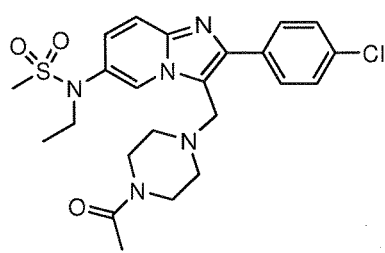
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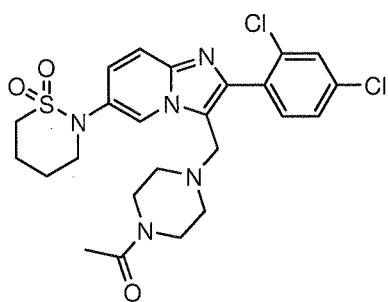
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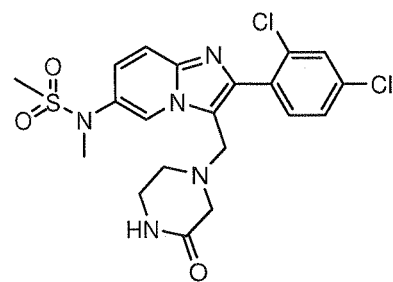
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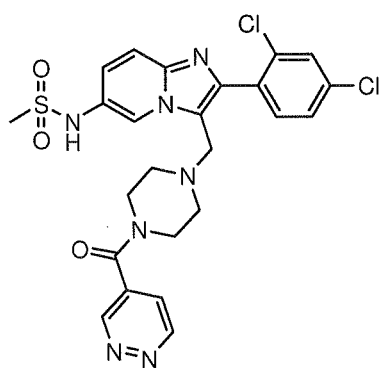
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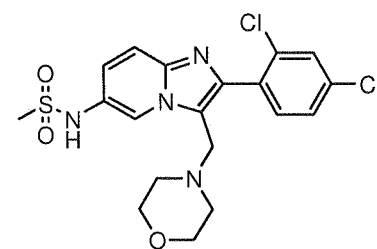
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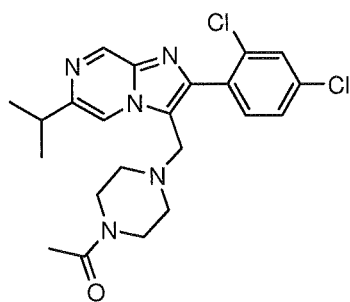
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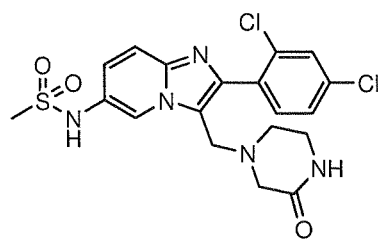
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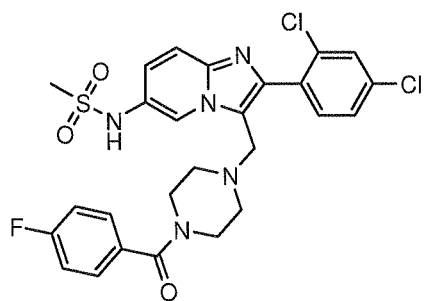
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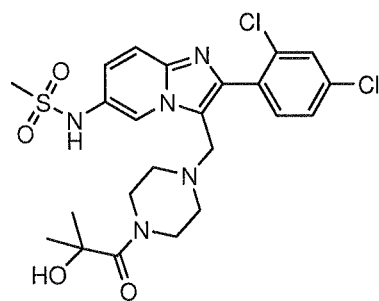
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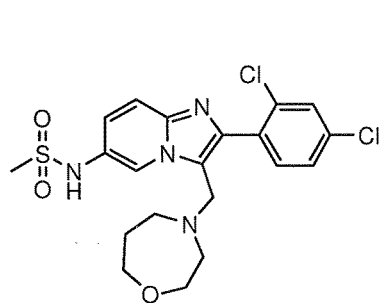
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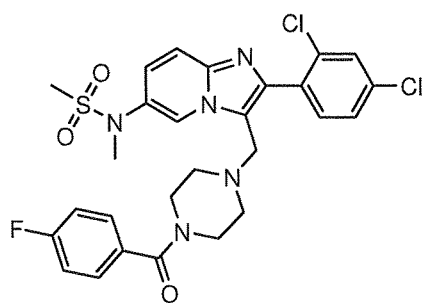
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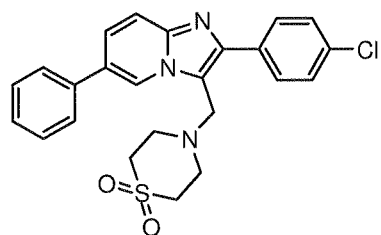
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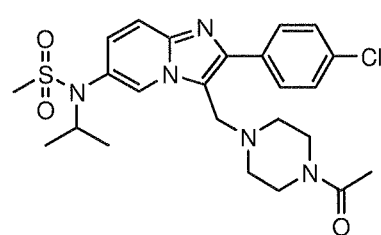
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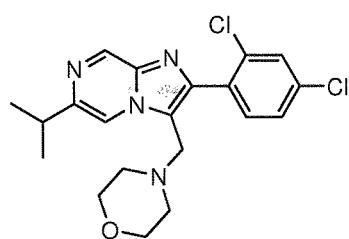
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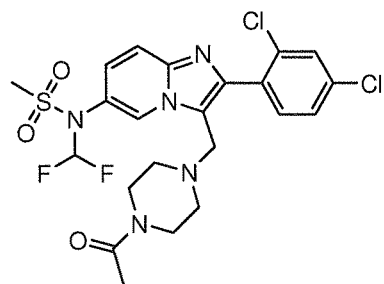
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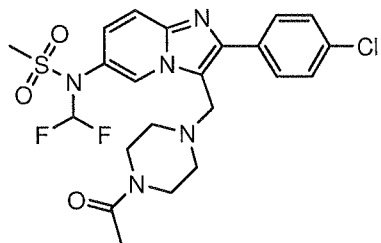
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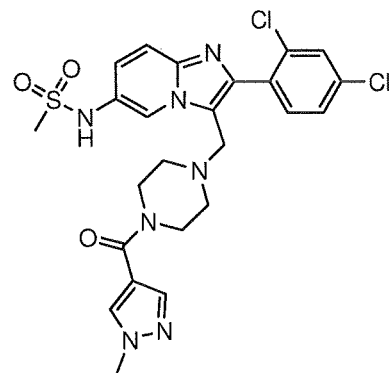
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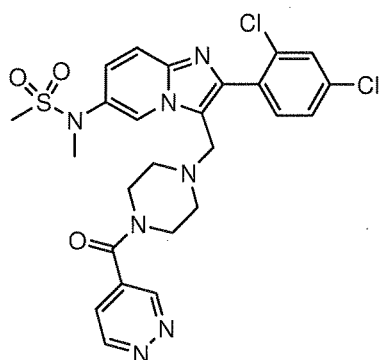
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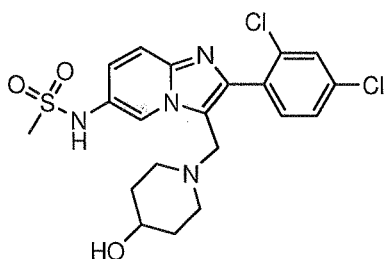
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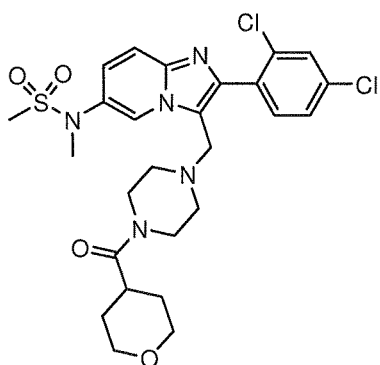
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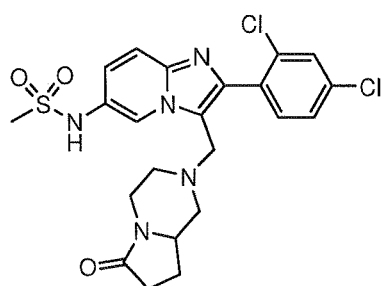
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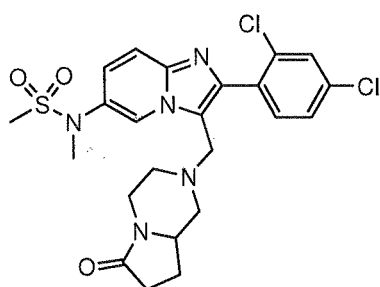
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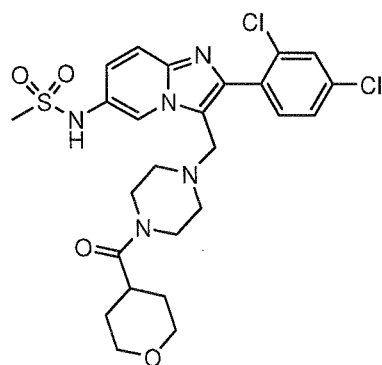
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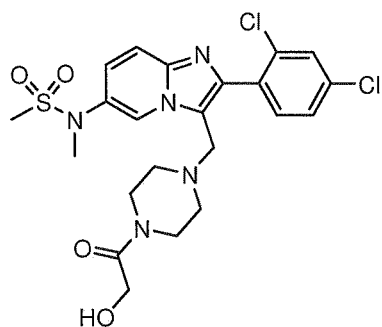
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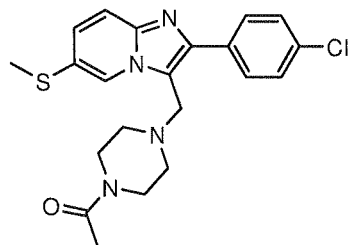
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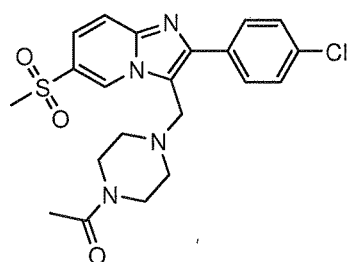
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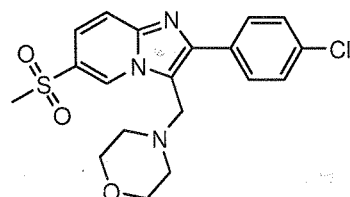
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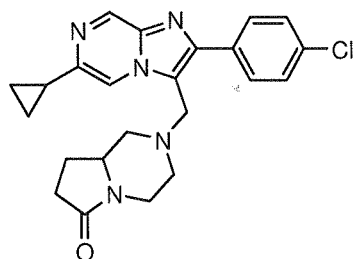
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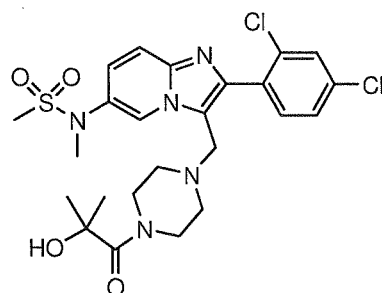
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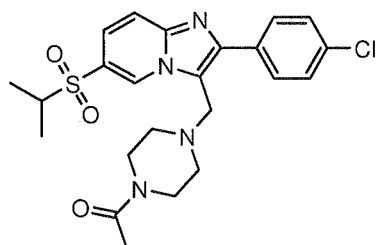
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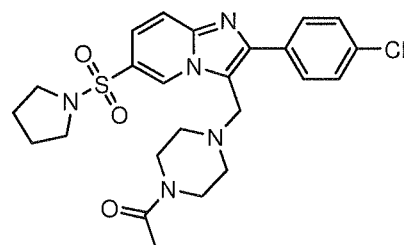
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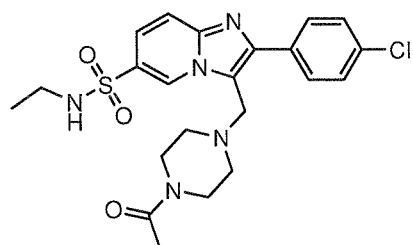
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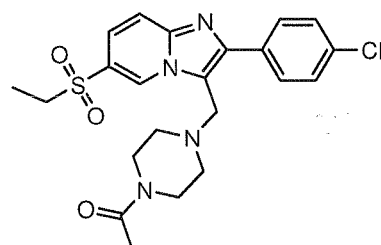
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13. A compound for use according to any preceding claim, which compound comprises:

- an isolated enantiomer, or
- a mixture of two or more enantiomers, or
- a mixture of two or more diastereomers, and/or epimers, or
- a racemic mixture.

14. A compound for use in treating a cancer, an inflammatory condition, an autoimmune condition, a neurological condition, a proliferative disorder, and/or a metabolic condition, which compound is a compound as defined in any preceding claim.

15. A compound for use according to claim 14, wherein the cancer is a cancer selected from a solid or liquid tumour and a cancer wherein basal glucose transport is up-regulated, including cancer of the eye, brain (such as gliomas, glioblastomas, medullablastomas, craniopharyngioma, ependymoma, and astrocytoma), spinal cord, kidney, mouth, lip, throat, oral cavity, nasal cavity, small intestine, colon, parathyroid gland, gall bladder, head and neck, breast, bone, bile duct, cervix, heart, hypopharyngeal gland, lung, bronchus, liver, skin, ureter, urethra, testicles, vagina, anus, laryngeal gland, ovary, thyroid, oesophagus, nasopharyngeal gland, pituitary gland, salivary gland, prostate, pancreas, adrenal glands; an endometrial cancer, oral cancer, melanoma, neuroblastoma, gastric cancer, an angiomas, a hemangioblastoma, a pheochromocytoma, a pancreatic cyst, a renal cell carcinoma, Wilms' tumour, squamous cell carcinoma, sarcoma, osteosarcoma, Kaposi sarcoma, rhabdomyosarcoma, hepatocellular carcinoma, PTEN Hamartoma-Tumor Syndromes (PHTS) (such as Lhermitte-Duclos disease, Cowden syndrome, Proteus syndrome, and Proteus-like syndrome), leukaemias and lymphomas (such as acute lymphoblastic leukaemia, chronic lymphocytic leukaemia, acute myelogenous leukaemia, chronic myelogenous leukaemia, hairy cell leukaemia, T-cell prolymphocytic leukemia (T-PLL), large granular lymphocytic leukemia, adult T-cell leukemia, juvenile myelomonocytic leukaemia, Hodgkin lymphoma, non-Hodgkin lymphoma, mantle lymphoma, follicular lymphoma, primary effusion lymphoma, AIDS-related lymphoma, Hodgkin lymphoma, diffuse B cell lymphoma, Burkitt lymphoma, and cutaneous T-cell lymphoma).

16. A compound for use according to claim 14, wherein the inflammatory condition and/or the autoimmune condition are conditions relating to immune B cell and/or T cell dysregulation including aberrant activation.

17. A compound for use according to claim 16, wherein the condition relating to immune B cell and/or T cell dysregulation is selected from an inflammatory or autoimmune condition selected from gout, idiopathic pulmonary fibrosis, liver fibrosis, liver cirrhosis, polycystic

kidney disease, allergic asthma, acute or chronic idiopathic inflammatory arthritis, osteoarthritis, rheumatoid arthritis, psoriasis, chronic dermatosis, myositis, a demyelinating disease, chronic obstructive pulmonary disease, interstitial lung disease, glomerulonephritis, interstitial nephritis, chronic infectious disease (such as chronic active hepatitis), Crohn's disease, ulcerative colitis, plaque formation in atherosclerosis, a degenerative disease of the joints or nervous system, multiple sclerosis, type I and type II diabetes, celiac disease, acute kidney injury, sepsis, acute liver failure, chronic liver failure, chronic kidney failure, pancreatitis, Grave's disease, psoriasis, septicemia, cystic fibrosis, meningitis and acute respiratory distress syndrome, ankylosing spondylitis, Chagas disease, dermatomyositis, endometriosis, Goodpasture's syndrome, Guillain-Barré syndrome, Hashimoto's disease, hidradenitis suppurativa, Kawasaki disease, idiopathic thrombocytopenic purpura, lupus (such as systemic lupus erythematosus, discoid lupus, drug-induced lupus, neonatal lupus, and subacute cutaneous lupus), neuromyotonia, pemphigus vulgaris, pernicious anemia, psoriasis, polymyositis, relapsing polychondritis, scleroderma, Sjögren's syndrome, stiff person syndrome, temporal arteritis (also known as giant cell arteritis), vasculitis, vitiligo, Wegener's granulomatosis, organ transplant rejection, uveoretinitis, glomerulonephritis, allergic reaction, fibromyalgia, multiple endocrine failure, Schmidt's syndrome, autoimmune uveitis, Addison's disease, adrenalitis, thyroiditis, autoimmune thyroid disease, gastric atrophy, chronic hepatitis, lupoid hepatitis, atherosclerosis, hypoparathyroidism, Dressler's syndrome, autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura, hemolytic anemia, atopic dermatitis, dermatitis herpetiformis, alopecia areata, pemphigoid, progressive systemic sclerosis, CREST syndrome (calcinosis, Raynaud's phenomenon, esophageal dysmotility, and sclerodactyl), polyarteritis nodosa, atopic rhinitis, sarcoidosis, rheumatic fever, erythema multiforme, Cushing's syndrome, toxic epidermal necrolysis, alveolitis, allergic alveolitis, fibrosing alveolitis, interstitial lung disease, Takayasu's arteritis, polymyalgia rheumatica, schistosomiasis, ascariasis, aspergillosis, Sampter's syndrome, lymphomatoid granulomatosis, Caplan's syndrome, dengue, encephalomyelitis, endocarditis, endomyocardial fibrosis, endophthalmitis, erythema elevatum et diutinum, erythroblastosis fetalis, eosinophilic fasciitis, Shulman's syndrome, Felty's syndrome, filariasis, cyclitis, chronic cyclitis, heterochronic cyclitis, Fuch's cyclitis, Henoch-Schönlein purpura, Eaton-Lambert syndrome, cryoglobulinemia, Waldenström's macroglobulemia, and Evan's syndrome.

18. A compound for use according to claim 14, wherein the proliferative disorder is a proliferative disorder selected from diseases of benign, pre-malignant, and malignant cellular proliferation, including neoplasms and tumours (such as histocytoma, glioma, astrocyoma, and osteoma), cancers, leukemias, psoriasis, bone diseases, fibroproliferative disorders (such as those of connective tissues), idiopathic pulmonary fibrosis, polycystic kidney disease, renal cyst formation, intimal hyperplasia, chronic liver disease, liver fibrosis, liver cirrhosis, scleroderma, restenosis and atherosclerosis.

19. A compound for use according to claim 14, wherein the neurological condition is a neurological condition selected from epilepsy, schizophrenia, Alzheimer's disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis (Lou Gehrig's Disease), frontotemporal dementia, Lewy body dementia, vascular dementia, progressive supranuclear palsy, corticobasal degeneration and multiple system atrophy.

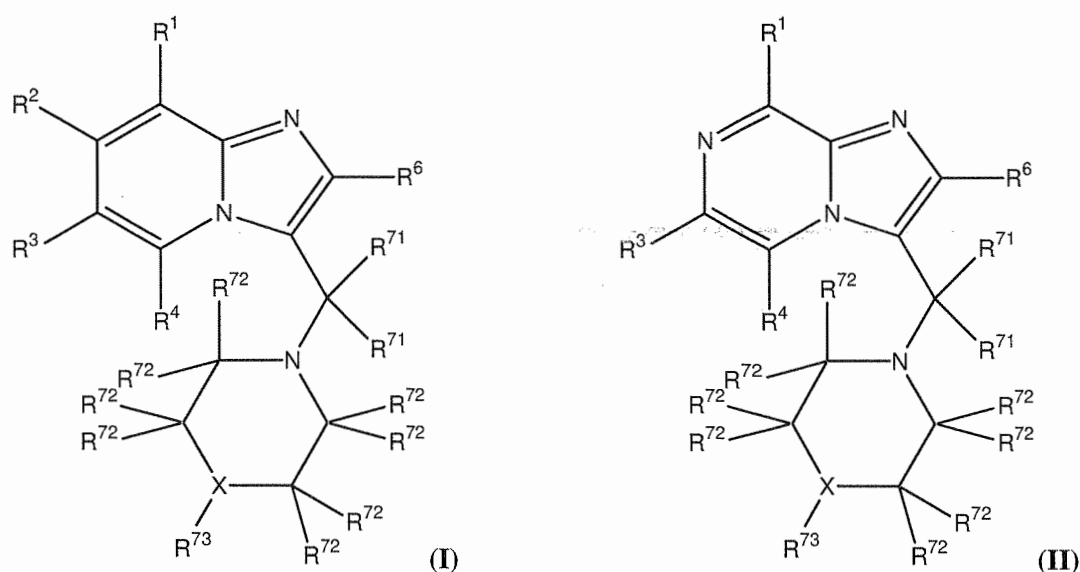
20. A compound for use according to claim 14, wherein the metabolic condition is a metabolic condition selected from metabolic syndrome, obesity, diabetes (such as diabetes type I, diabetes type II, MODY, and gestational diabetes), pre-diabetes, lipodystrophy, impaired glucose tolerance, elevated plasma insulin concentrations, insulin resistance, dyslipidemia, hyperglycemia, hyperlipidemia, hypertriglyceridemia, hypertension, cardiovascular disease or respiratory conditions. hyperphagia, hypophagia, triglyceride storage disease, Bardet-Biedl syndrome, Lawrence-Moon syndrome, Prader-Labhart- Willi syndrome, Kearns-Sayre syndrome, medium chain acyl-CoA dehydrogenase deficiency and cachexia.

21. A pharmaceutical composition comprising a compound as defined in any of claims 1-13.

22. A pharmaceutical composition according to claim 21, further comprising a pharmaceutically acceptable additive and/or excipient.

23. A pharmaceutical composition according to claim 21 or claim 22, which composition is for treating a cancer, a condition or a disorder as defined in any of claims 14-19.

24. A pharmaceutical composition according to claim 23 for treating a cancer, further comprising a further agent for treating cancer; preferably wherein the further agent for treating cancer is selected from anti-microtubule agents, platinum coordination complexes, alkylating agents, antibiotic agents, topoisomerase II inhibitors, antimetabolites, topoisomerase I inhibitors, hormones and hormone analogues, signal transduction pathway inhibitors, non-receptor tyrosine kinase angiogenesis inhibitors, immunotherapeutic agents, proapoptotic agents, respiratory chain un-couplers such as metformin, and cell cycle signalling inhibitors.
25. Use of a compound or a composition as defined in any preceding claim in the manufacture of a medicament for treating a cancer and/or a condition and/or a disorder in a patient.
26. The use of claim 25, wherein the cancer or condition or disorder is a cancer or condition or disorder as defined in any of claims 14-20.
27. The use of claim 26 further comprising a further agent as defined in claim 24 for treating the cancer, wherein the compound or composition and the further agent are to be administered simultaneously, sequentially or separately.
28. The use of any of claims 25-27, wherein the patient is human.
29. A compound, which compound comprises a formula selected from one of the following:



wherein in (I) the substituents may be selected from one of the following groups (i)-(vi):

(i) R³ is selected from a substituted or unsubstituted saturated carbocyclic ring having from 3 to 7 ring carbons; and a substituted or unsubstituted aromatic ring having from 3 to 7 ring carbons provided that it is not a 4-methylphenyl group; R⁶ is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; X is N; R⁷³ is a $-(CO)-R^{75}$ group; and wherein R¹, R², R⁴, R⁷¹, R⁷² and R⁷⁵ are independently selected from H and a substituted or unsubstituted organic group; preferably wherein R¹, R², R⁴, R⁷¹, R⁷² and R⁷⁵ are as defined in any preceding claim;

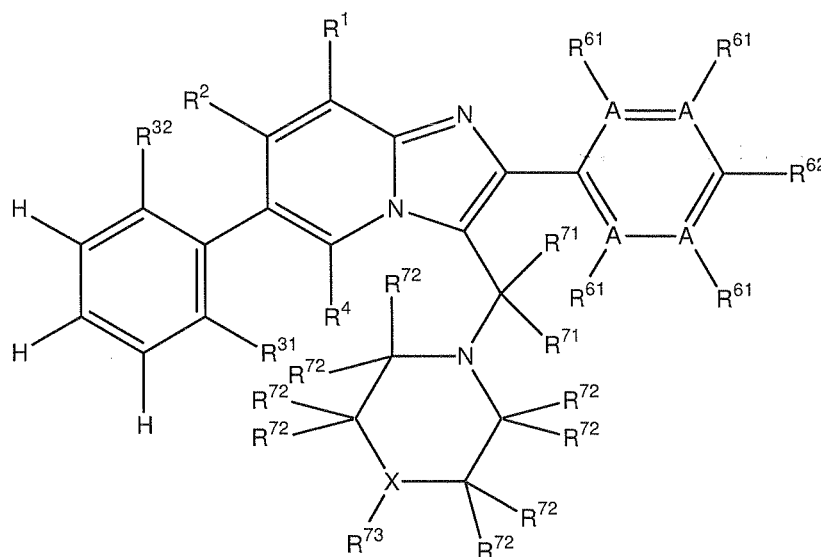
(ii) R³ is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; R⁶ is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; X is independently selected from N, O and S wherein R⁷³ is absent when its X is O or S; and wherein R¹, R², R⁴, R⁷¹, R⁷² and R⁷³ are independently selected from H and a substituted or unsubstituted organic group; preferably wherein R¹, R², R⁴, R⁷¹, R⁷² and R⁷³ are as defined in any preceding claim;

(iii) R³ is a $-Z(R^{33})_2$ group in which Z can be C or N wherein a further H or substituted or unsubstituted organic group or R³³ group may be present when Z is C; R³³ is selected from a substituted or unsubstituted linear or branched alkyl group optionally forming

a non-aromatic carbocyclic or heterocyclic ring with another R^{33} , a substituted sulphonyl group, and a substituted carbonyl group; provided that the $-Z(R^{33})_2$ group is not $-NH_2$ or an amide bonded to the ring via a C atom; R^6 is a substituted or unsubstituted saturated or unsaturated heterocyclic group preferably having from 4 to 7 ring atoms; X is N; and wherein R^{73} is a $-(CO)-R^{75}$ group; and wherein $R^1, R^2, R^4, R^{71}, R^{72}$ and R^{75} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein $R^1, R^2, R^4, R^{71}, R^{72}$ and R^{75} are as defined in any preceding claim;

(iv) R^6 is a substituted or unsubstituted saturated homocyclic or heterocyclic group having from 3-7 ring atoms in which each ring atom is selected from C, N, O or S, provided that R^6 is not adamantyl; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; and wherein $R^1, R^2, R^3, R^4, R^{71}, R^{72}$ and R^{73} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein $R^1, R^2, R^3, R^4, R^{71}, R^{72}$ and R^{73} are as defined in any preceding claim;

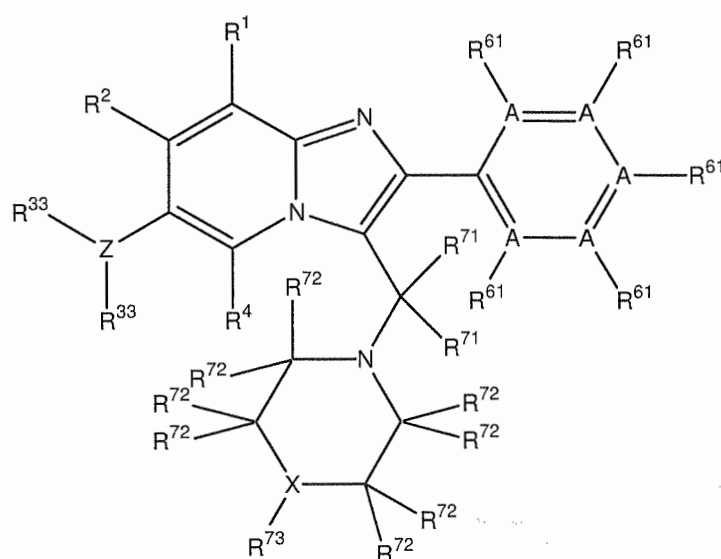
(v) groups such that the compound has a structure as follows:



wherein $R^1, R^2, R^4, R^{71}, R^{72}$ and R^{73} are independently selected from H and a substituted or unsubstituted organic group; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring;

A may independently be C or N wherein R^{61} is absent when A is N; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; R^{31} is selected from H and a substituted or unsubstituted organic group; R^{32} is selected from a substituted or unsubstituted organic group excluding H; R^{61} is selected from H and a substituted or unsubstituted organic group; and R^{62} is selected from a substituted or unsubstituted organic group excluding H and Me; and

(vi) groups such that the compound has a structure as follows:



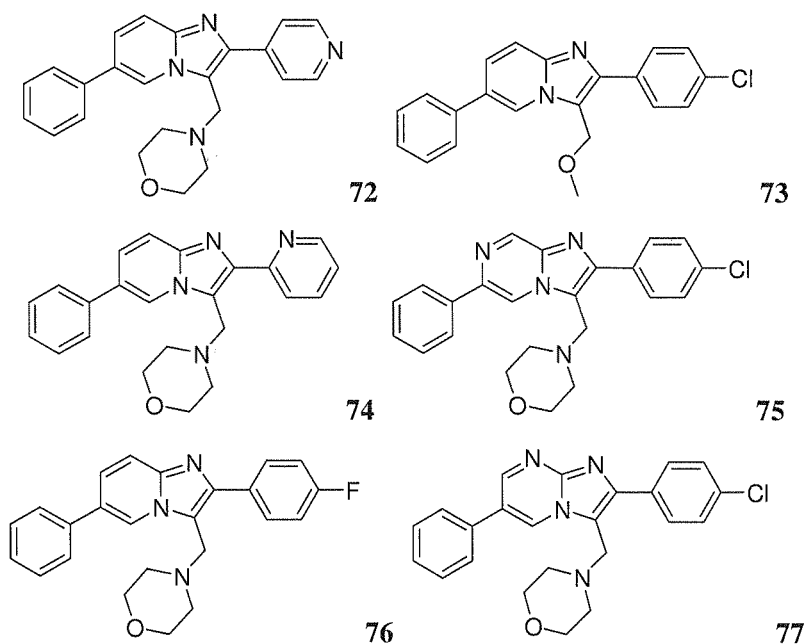
wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; each A may independently be C or N wherein R^{61} is absent when A is N; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; Z can be C or N wherein a further H or substituted or unsubstituted organic group or R^{33} group may be present when Z is C; R^{33} is selected from a substituted or unsubstituted linear or branched alkyl group optionally forming a non-aromatic carbocyclic or heterocyclic ring with another R^{33} , a substituted sulphonyl group, and a substituted carbonyl group; and R^{61} is selected from H and a substituted or unsubstituted organic group;

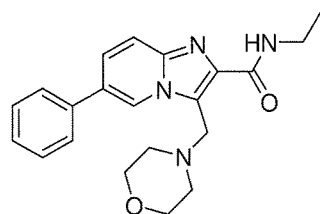
and wherein in (II) the substituents are as follows:

R^1 , R^3 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group, provided that R^3 is not Me; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; and R^6 is selected from H and a substituted or unsubstituted organic group except CO_2H and CO_2Et ; preferably wherein R^1 , R^3 , R^4 , R^{71} , R^{72} and R^{73} are as defined in any preceding claim.

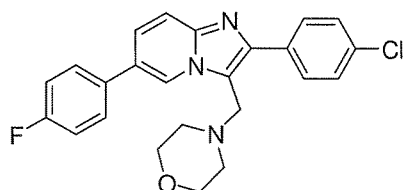
30. A compound according to claim 29, which compound is a compound wherein R^1 , R^2 , R^3 , R^4 , R^6 , R^{71} , R^{72} , R^{73} and R^{75} are as defined in any of claims 6-11.

31. A compound, which is a compound of any of the following formulae:

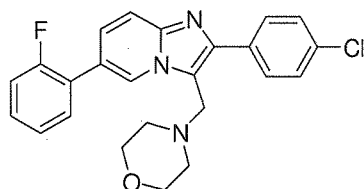




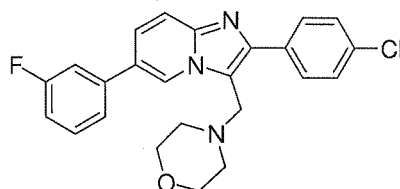
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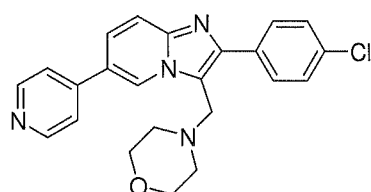
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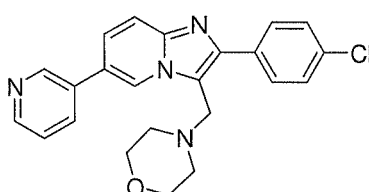
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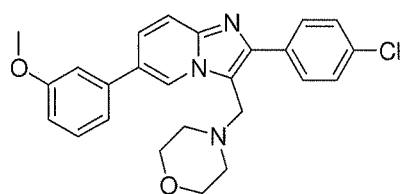
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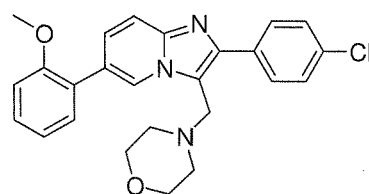
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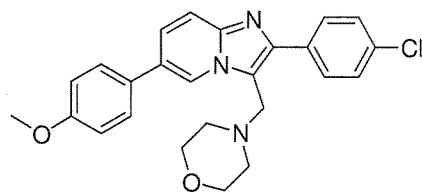
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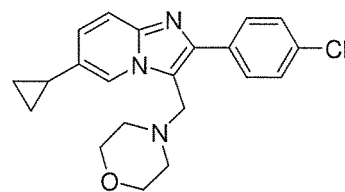
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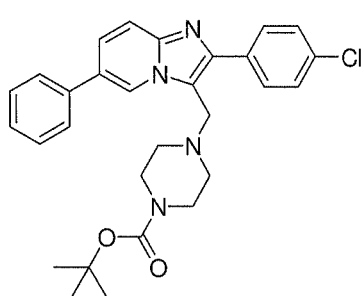
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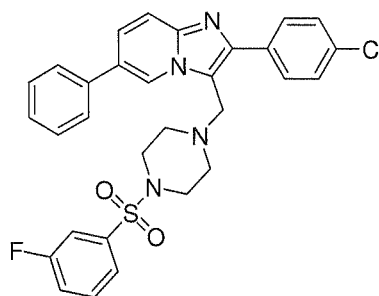
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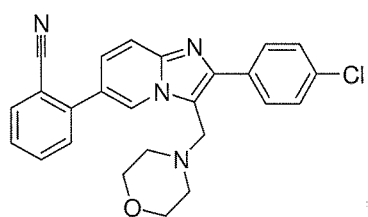
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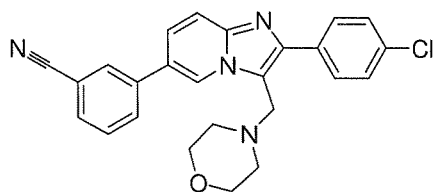
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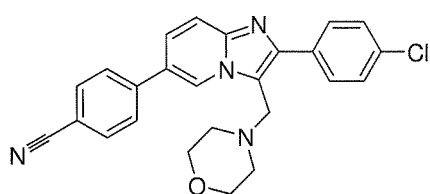
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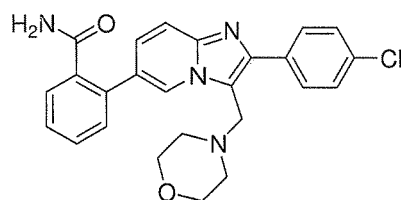
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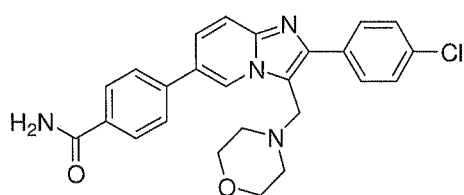
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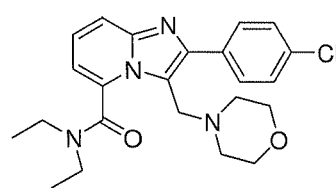
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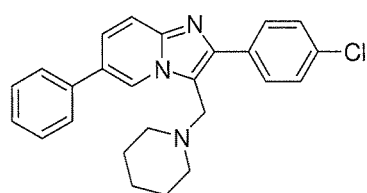
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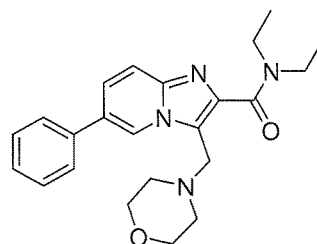
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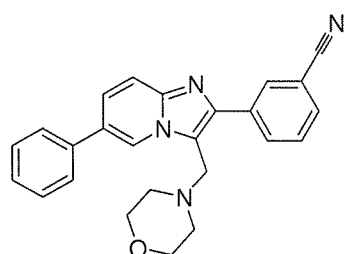
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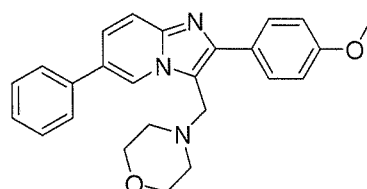
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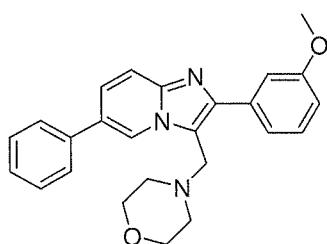
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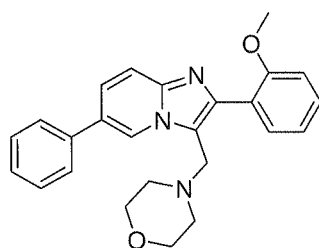
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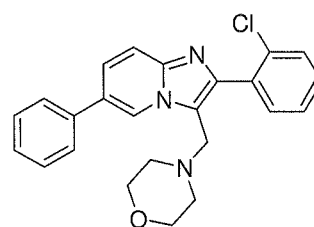
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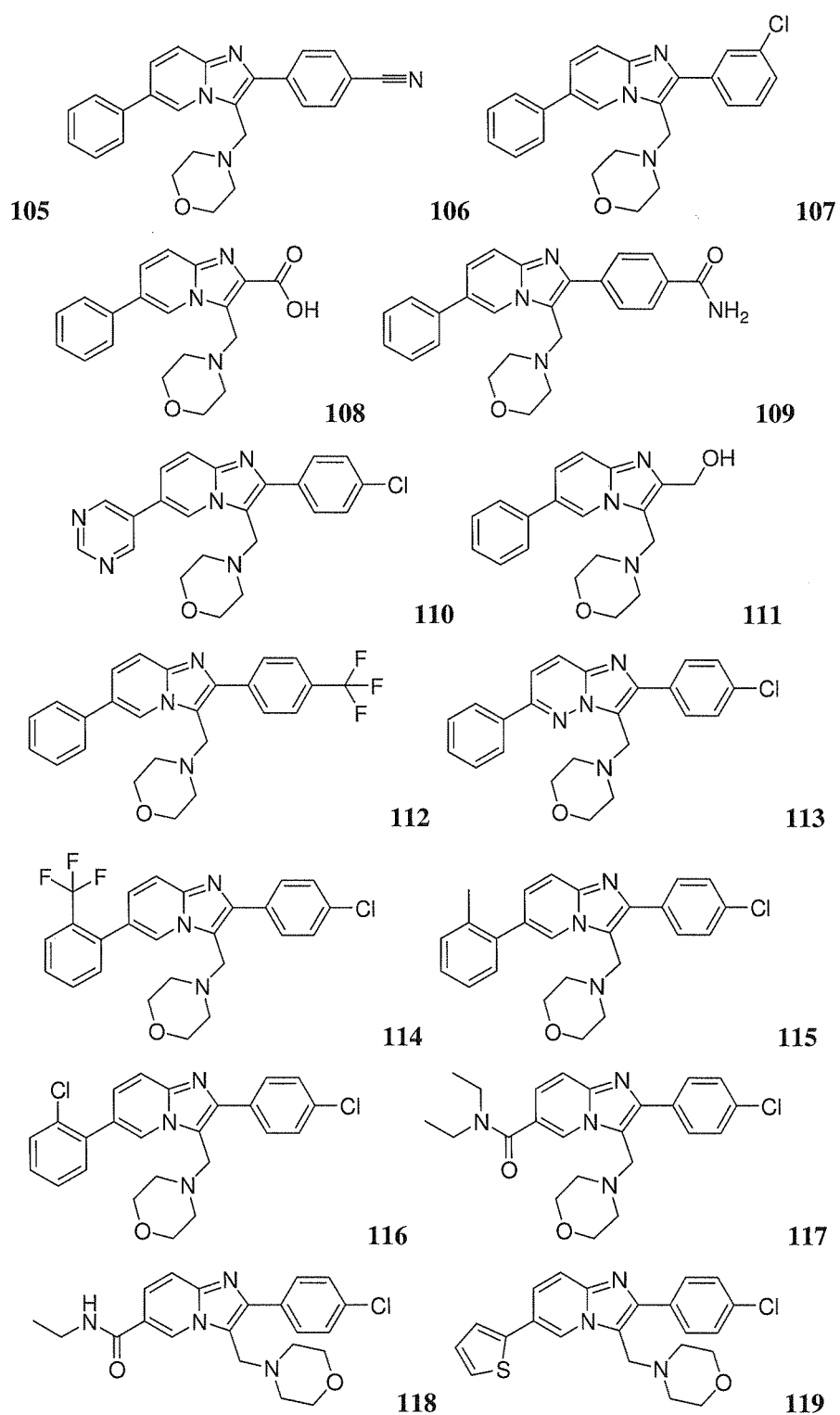


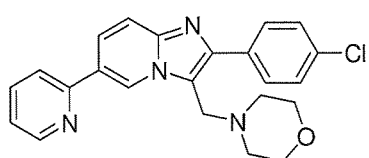
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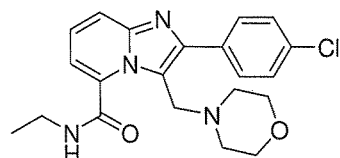
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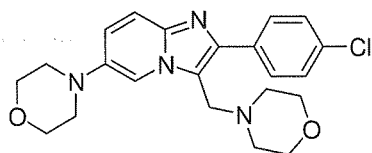




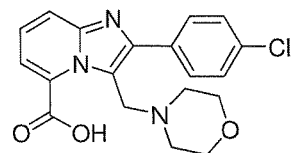
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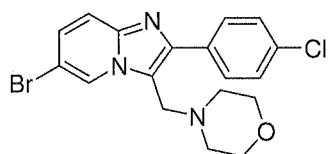
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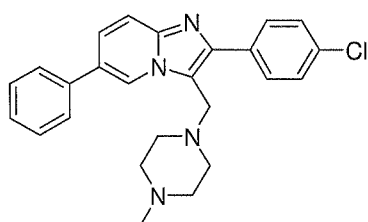
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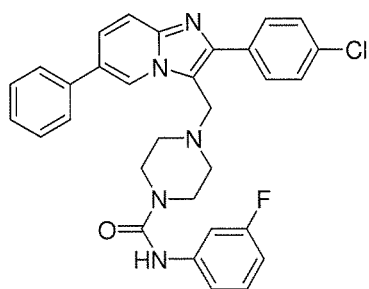
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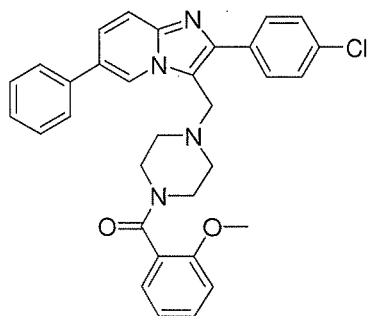
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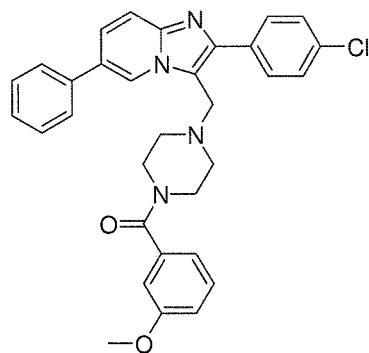
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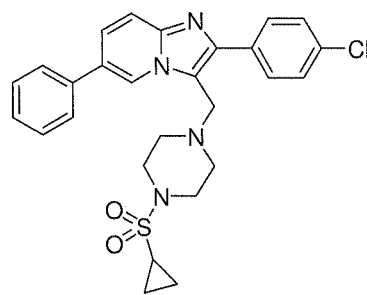
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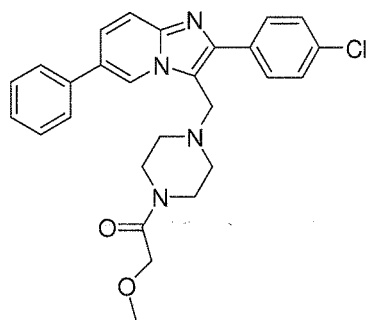
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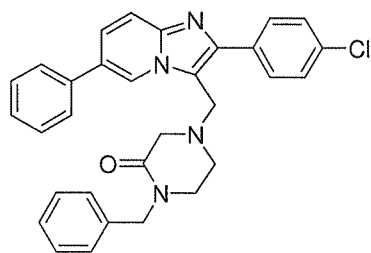
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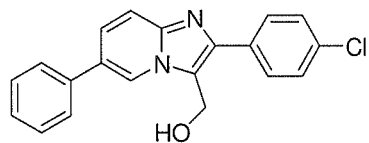
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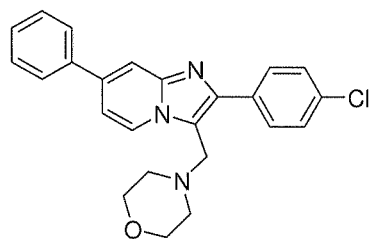
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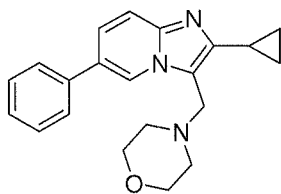
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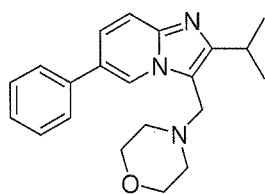
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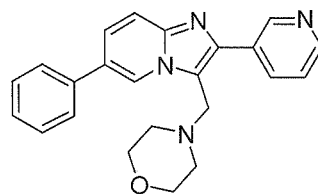
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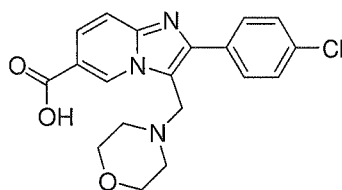
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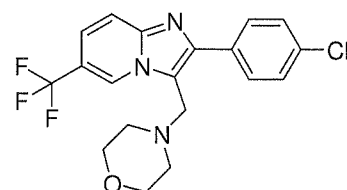
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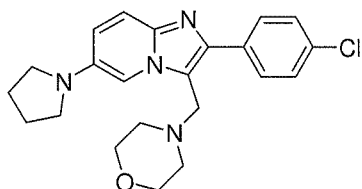
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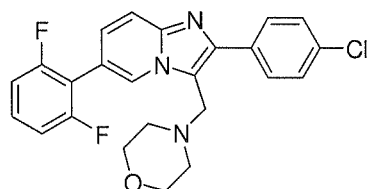
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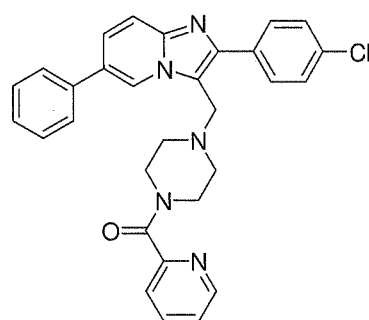
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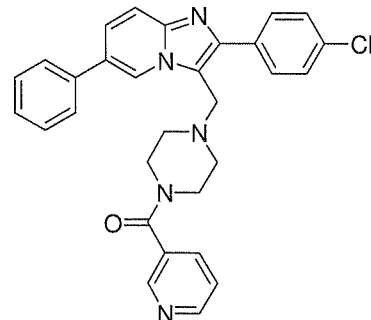
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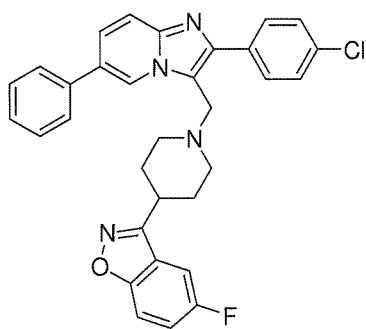
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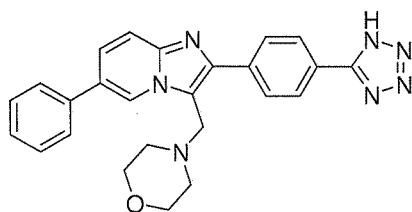
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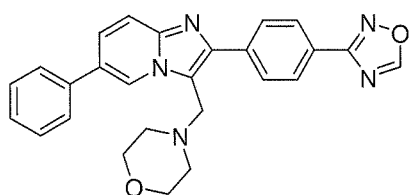
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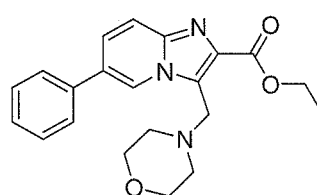
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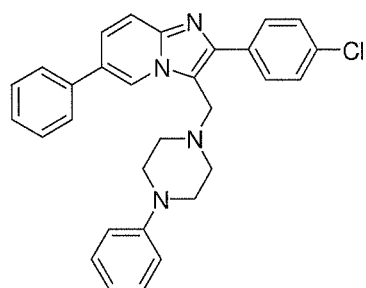
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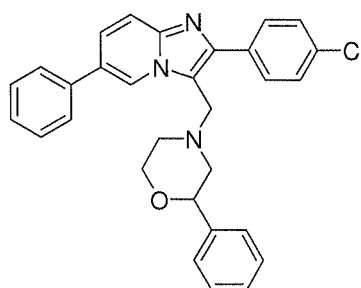
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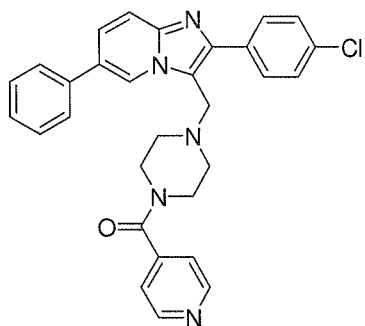
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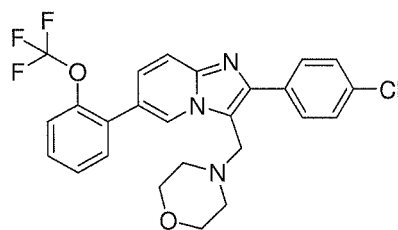
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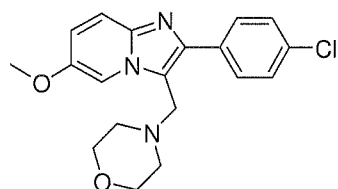
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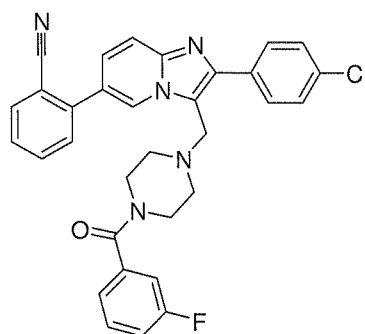
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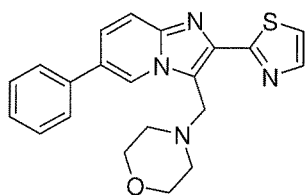
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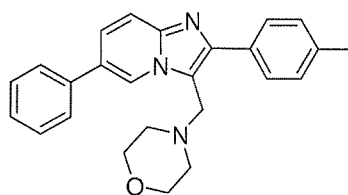
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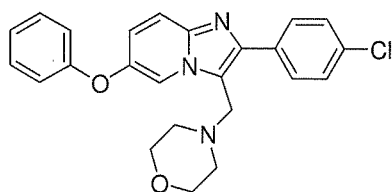
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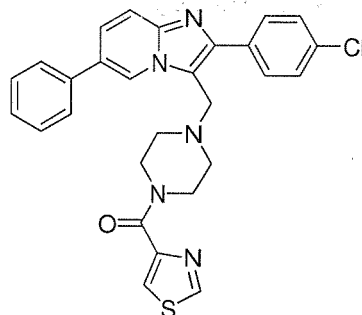
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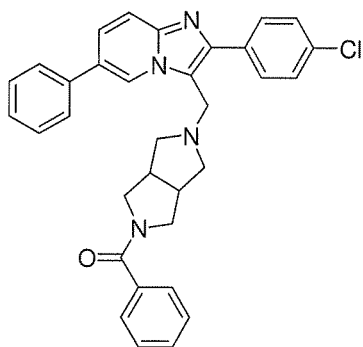
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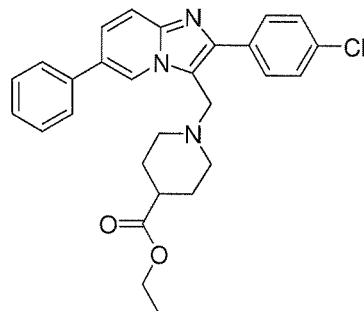
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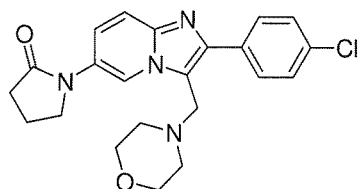
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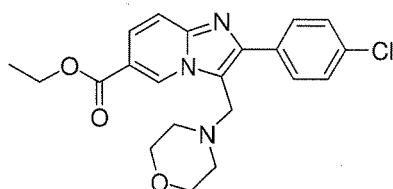
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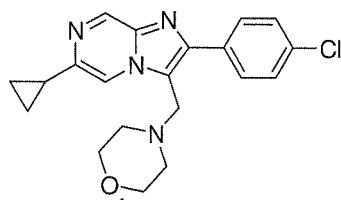
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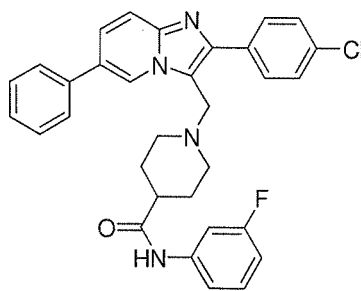
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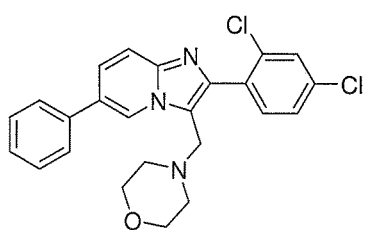
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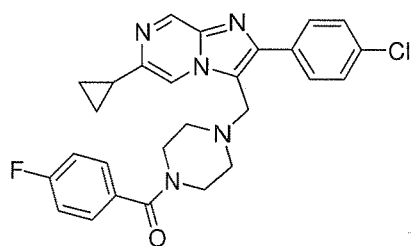
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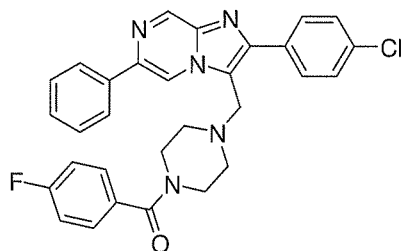
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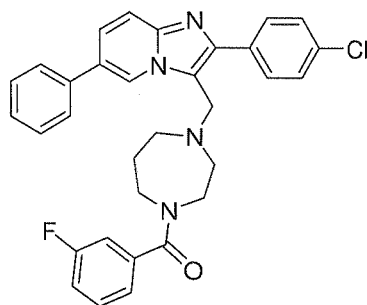
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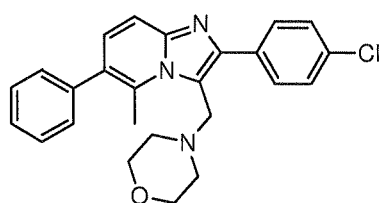
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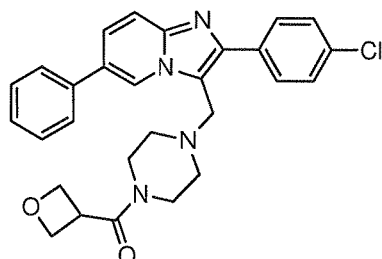
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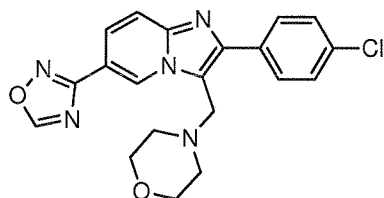
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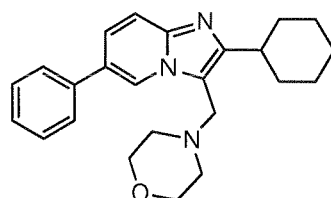
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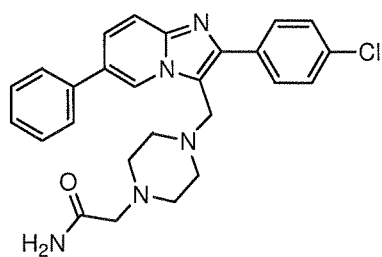
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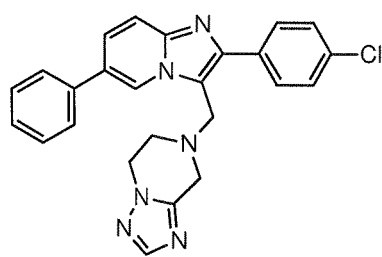
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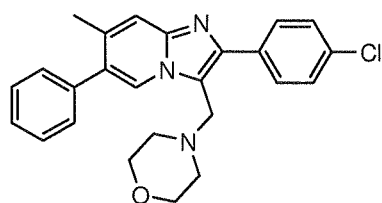
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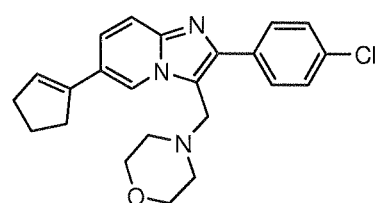
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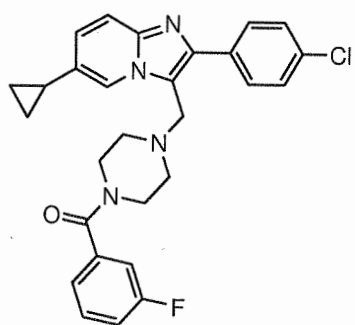
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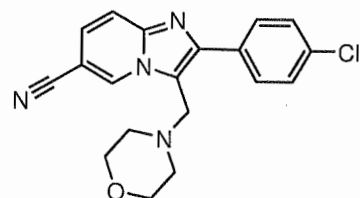
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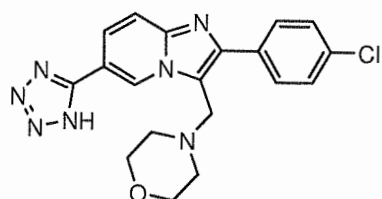
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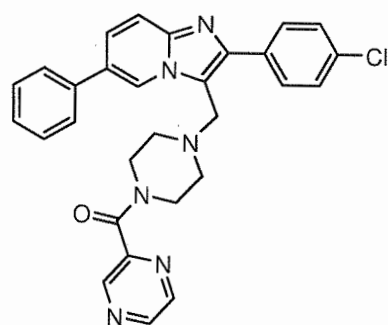
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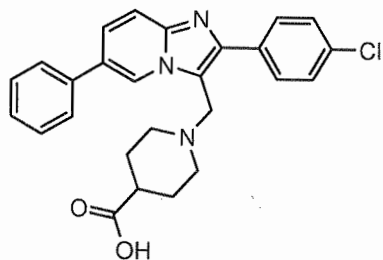
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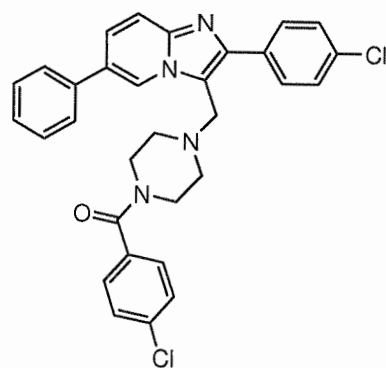
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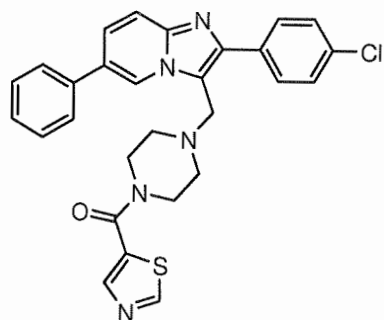
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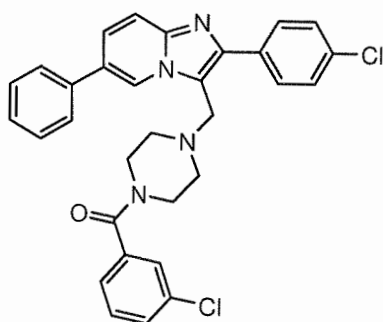
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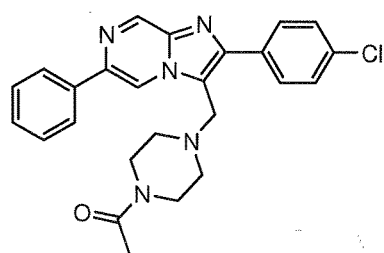
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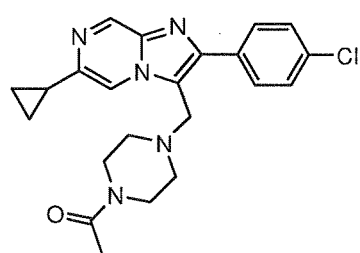
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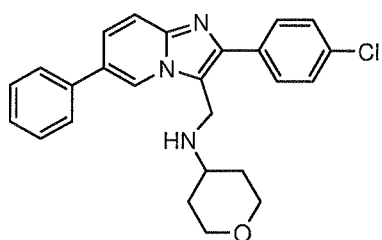
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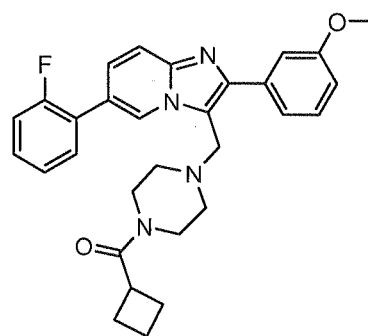
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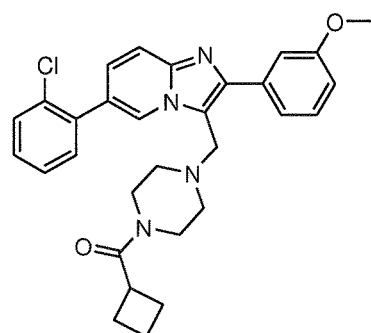
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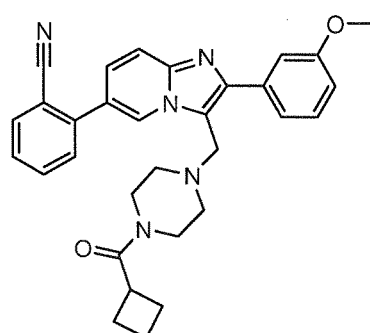
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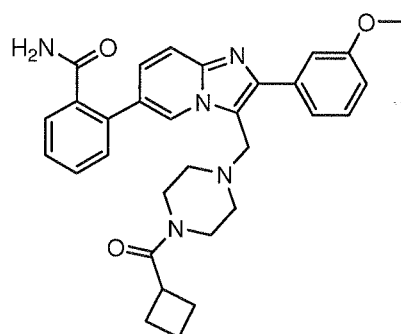
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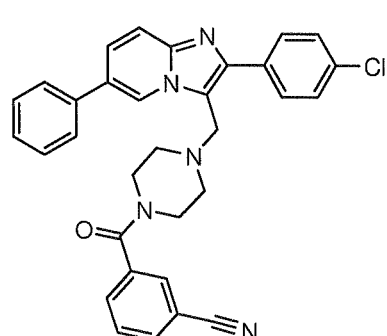
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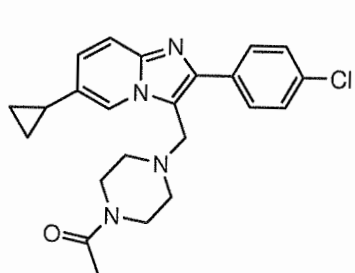
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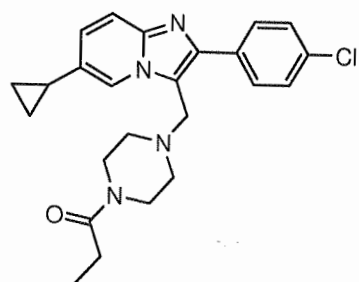
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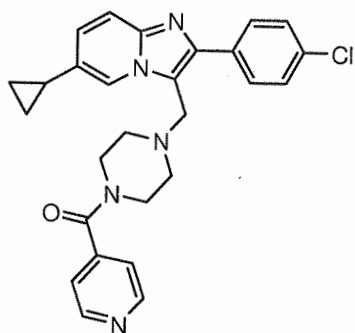
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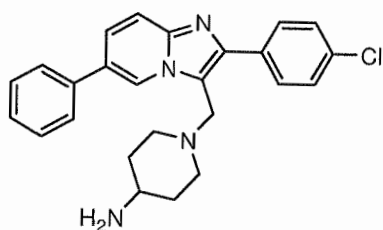
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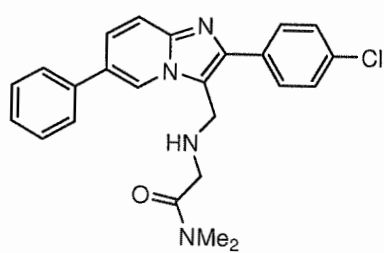
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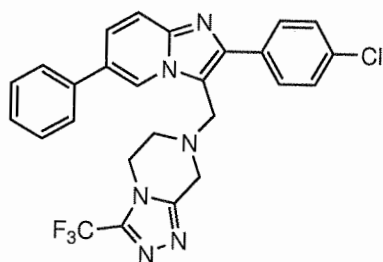
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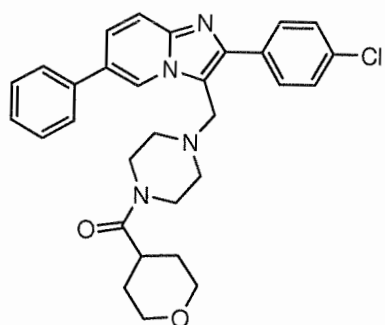
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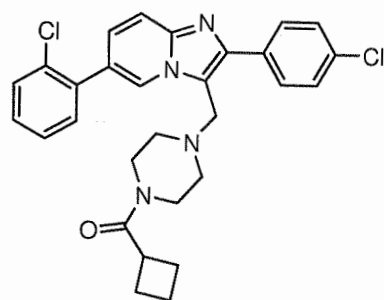
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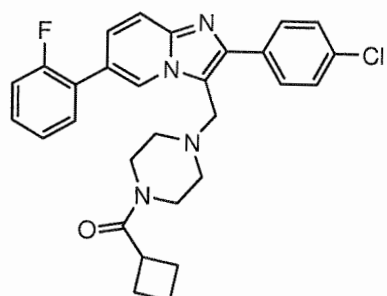
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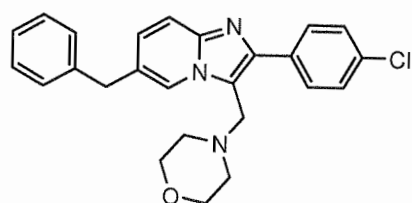
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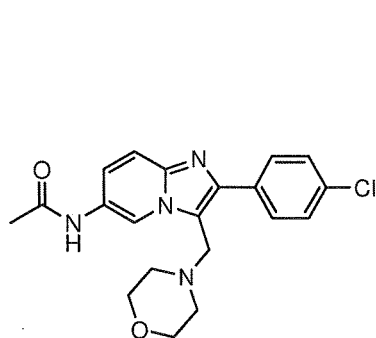
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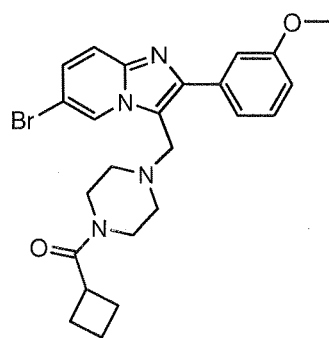
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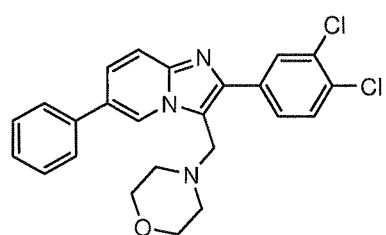
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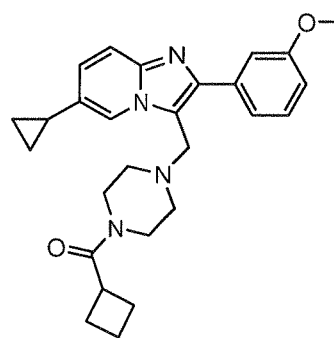
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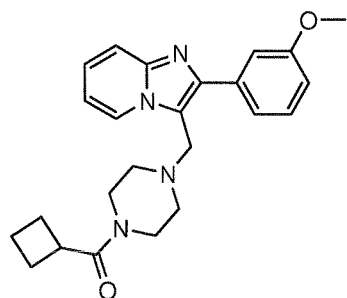
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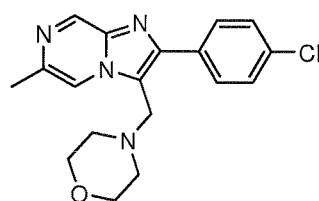
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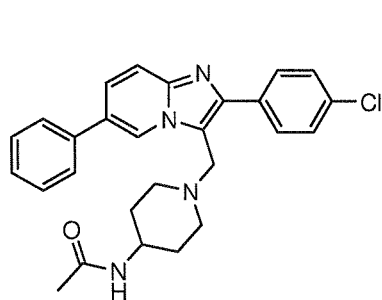
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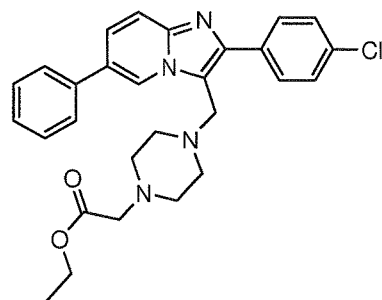
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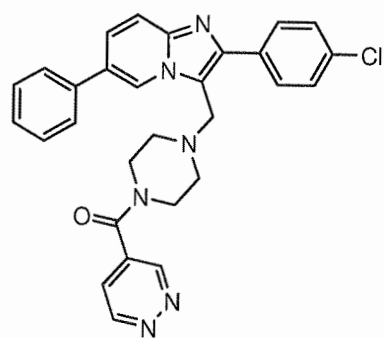
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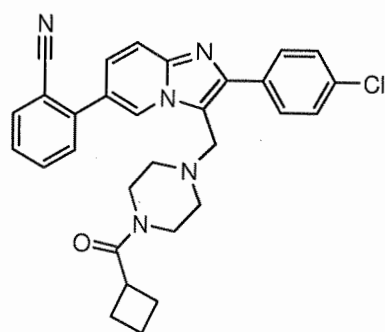
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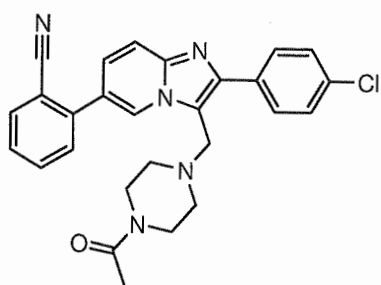
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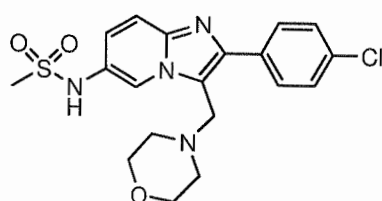
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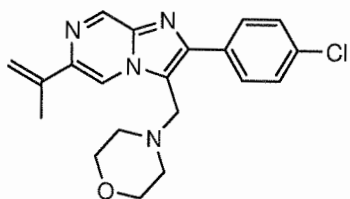
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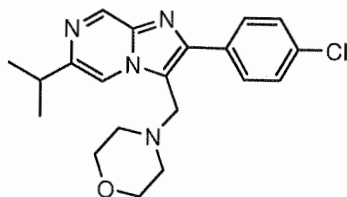
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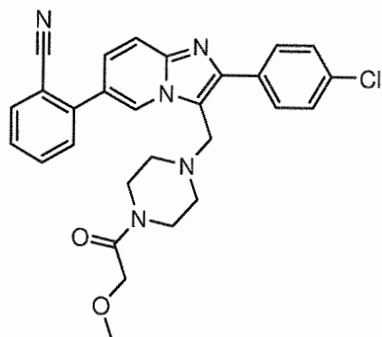
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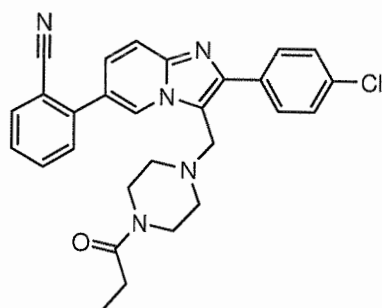
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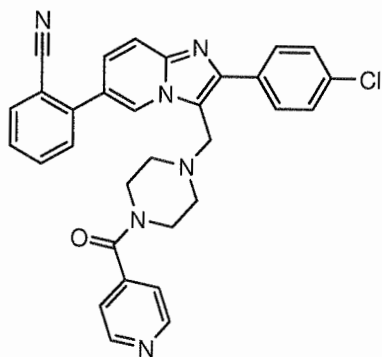
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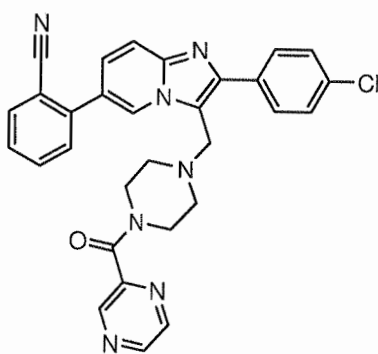
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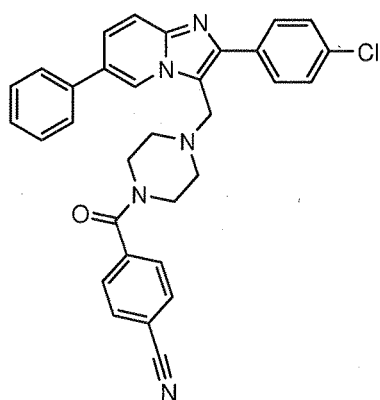
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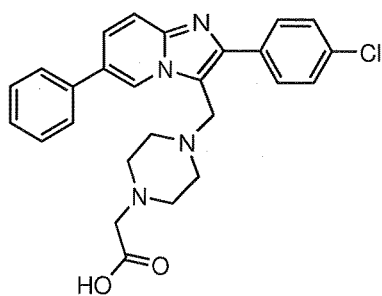
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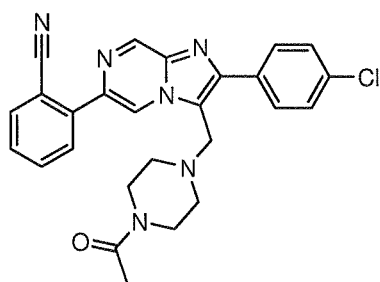
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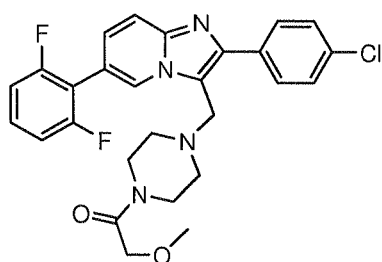
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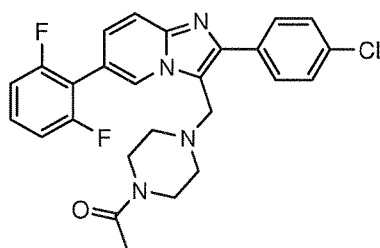
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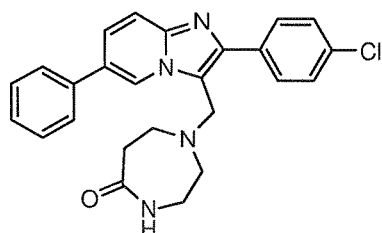
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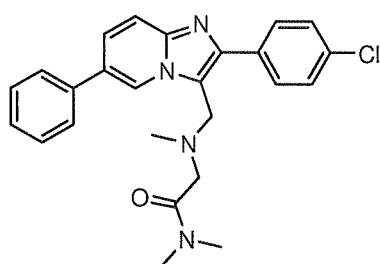
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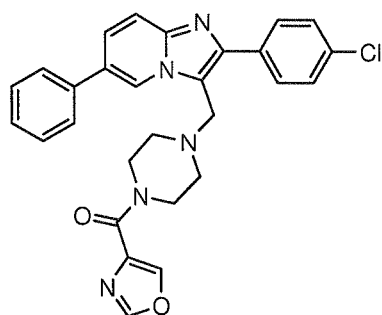
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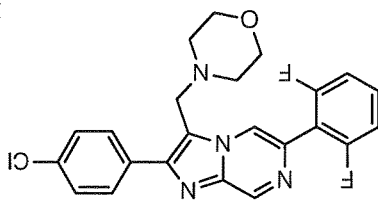


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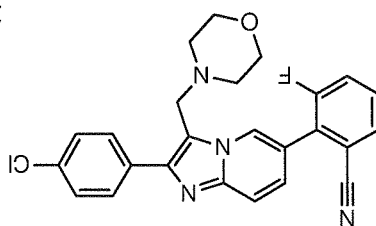


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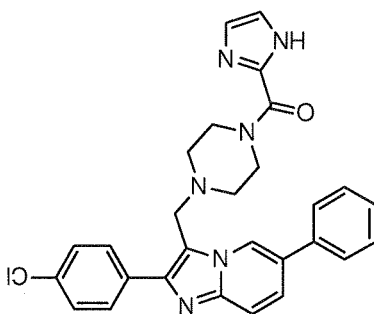
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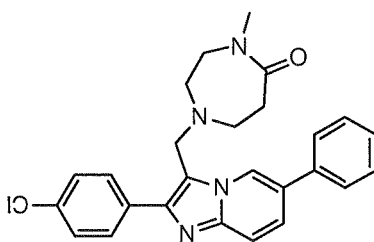
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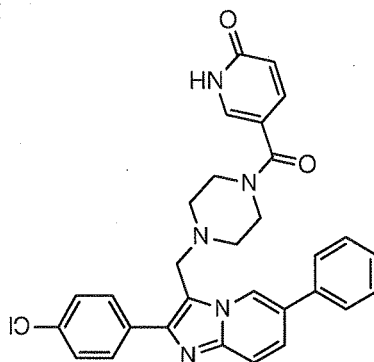
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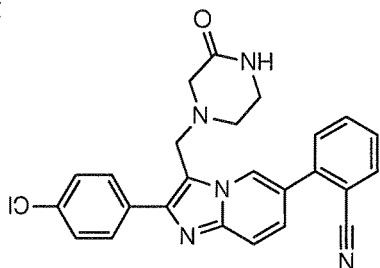
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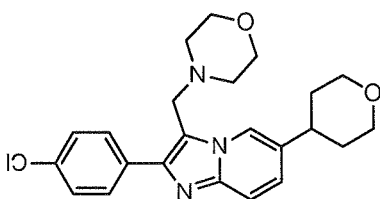
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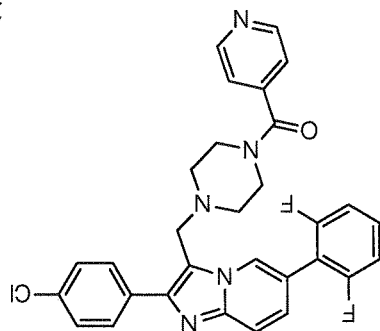
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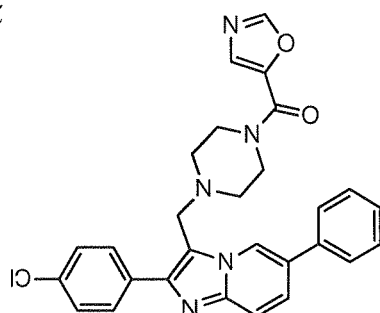
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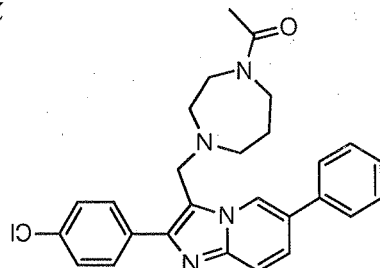
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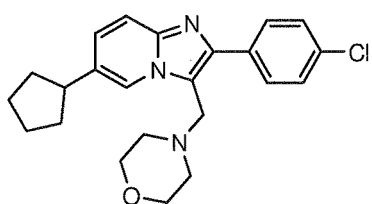


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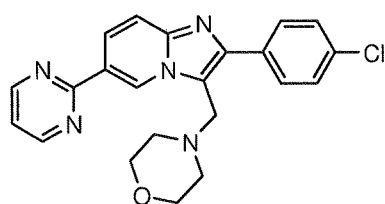


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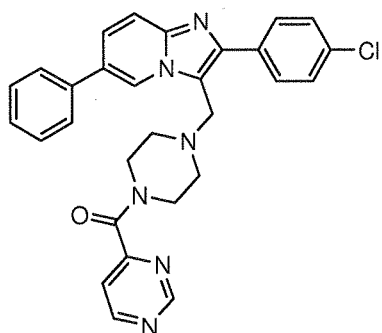




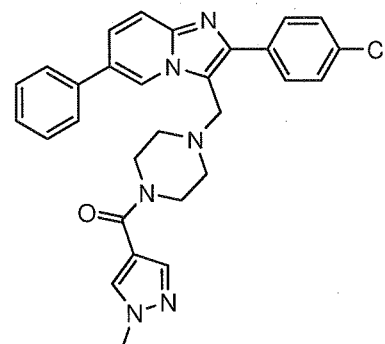
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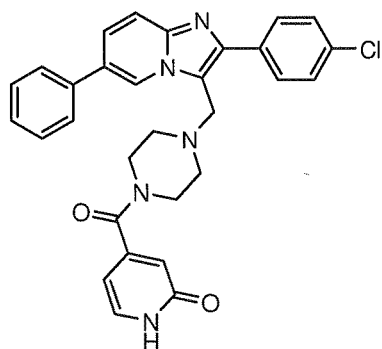
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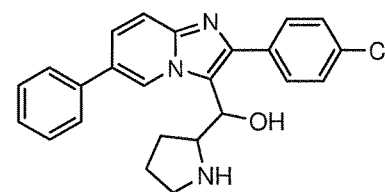
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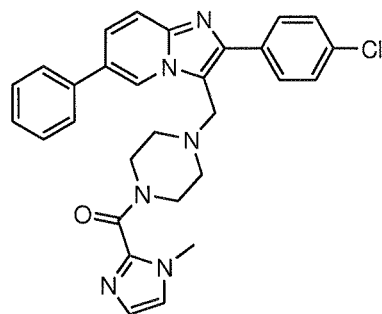
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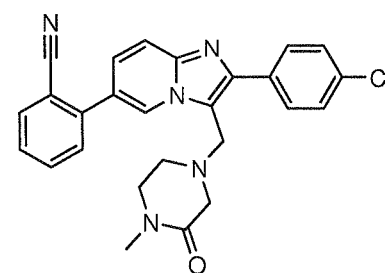
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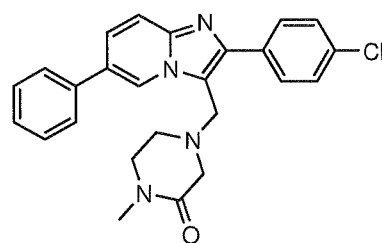
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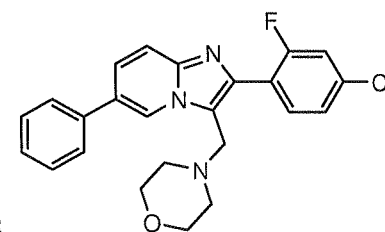
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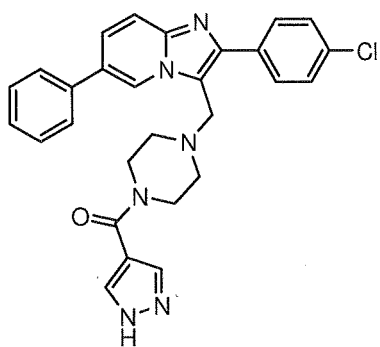
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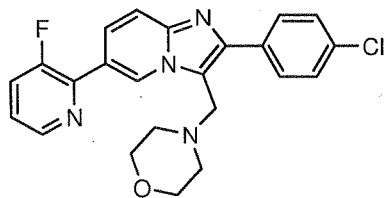
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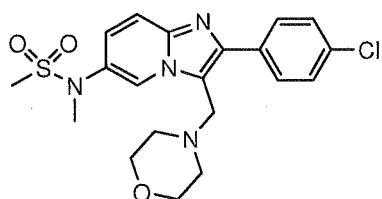
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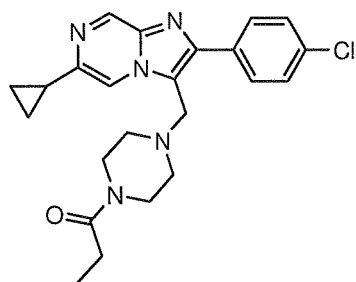
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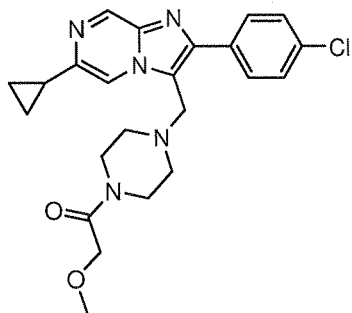
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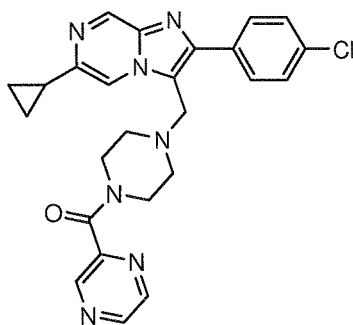
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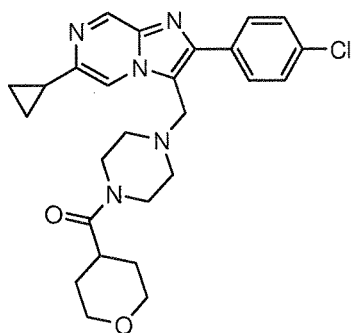
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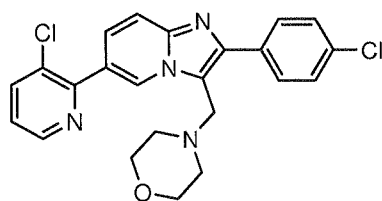
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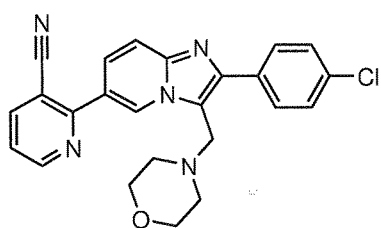
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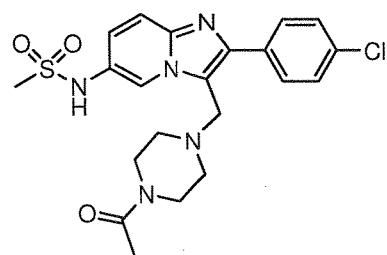
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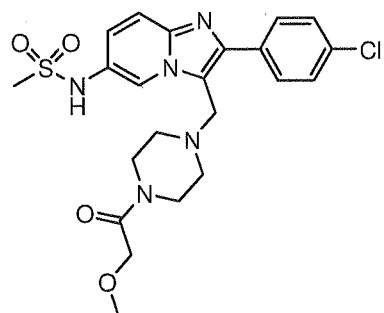
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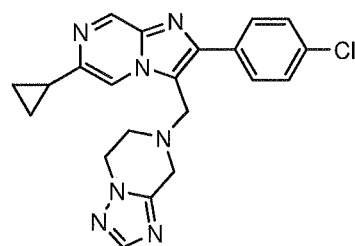
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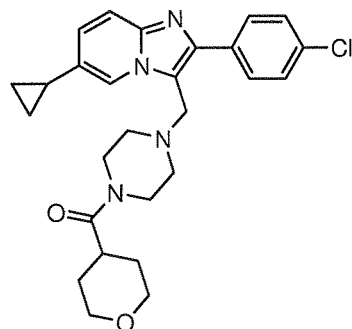
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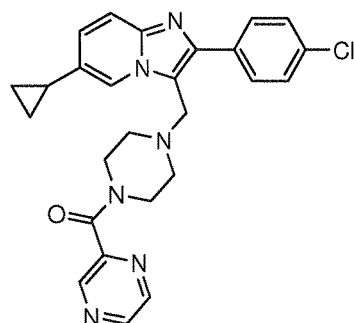
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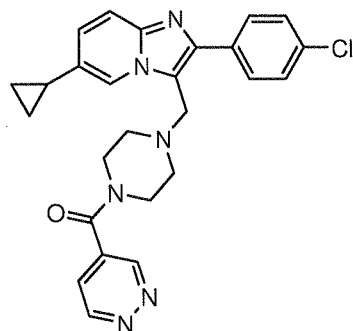
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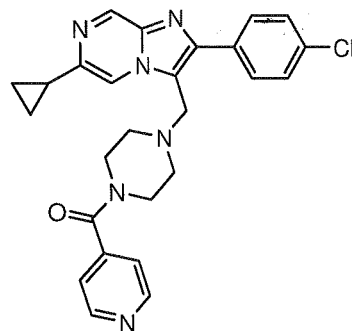
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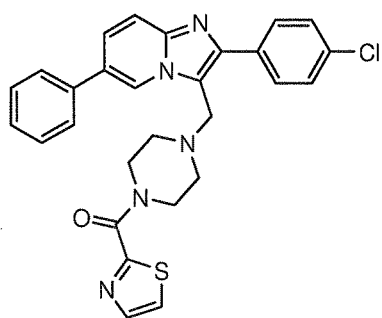
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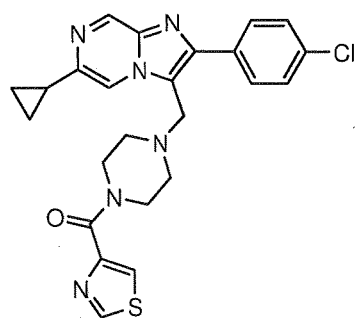
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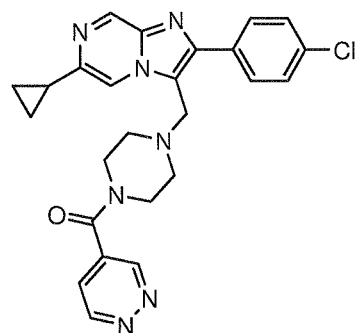
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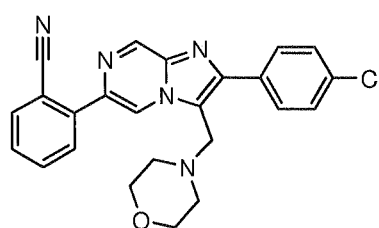
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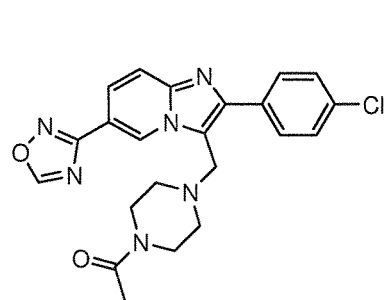
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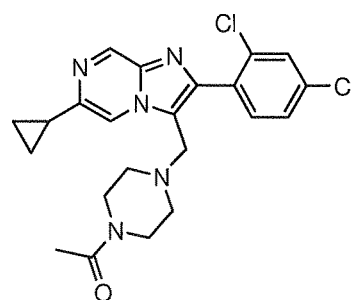
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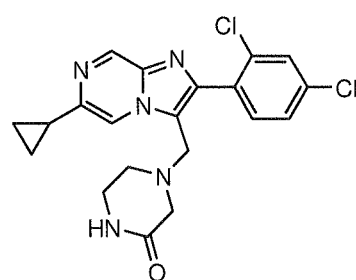
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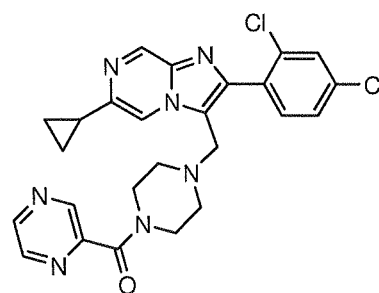
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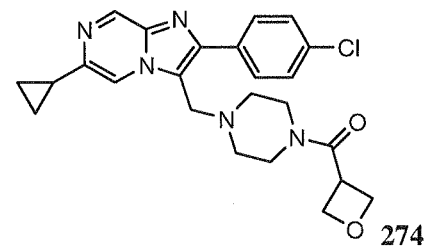
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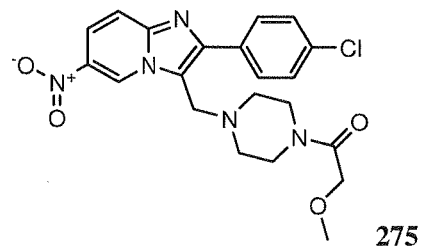
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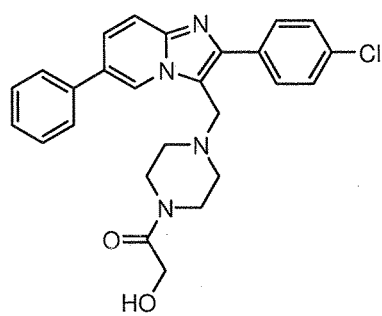
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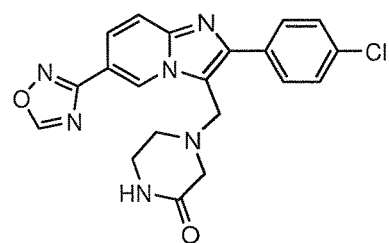
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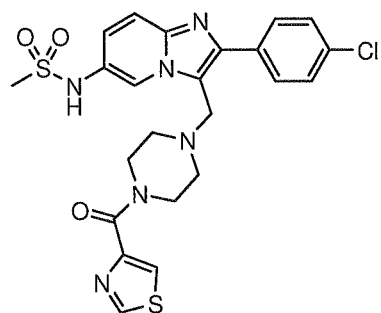
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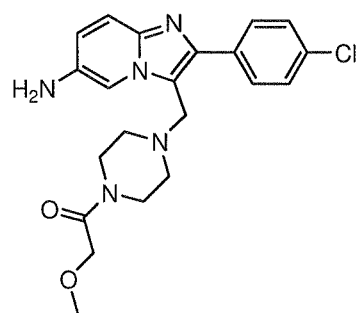
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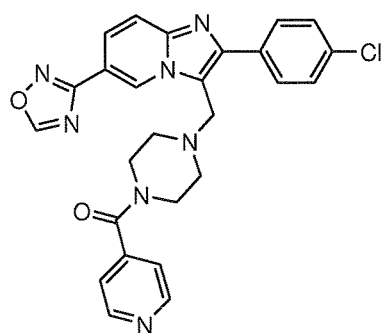
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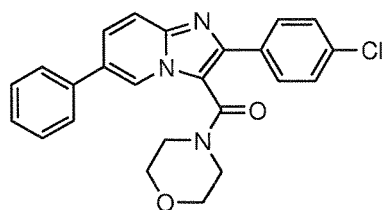
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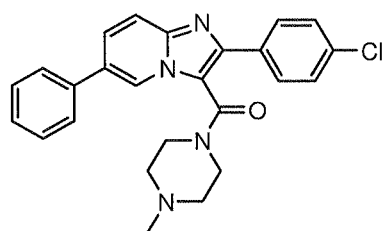
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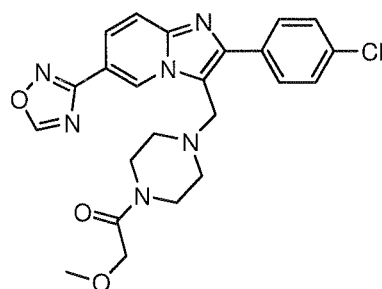
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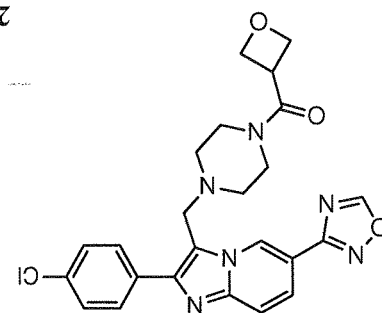
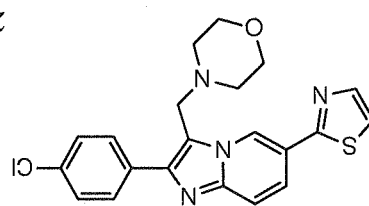
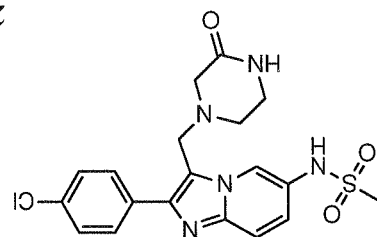
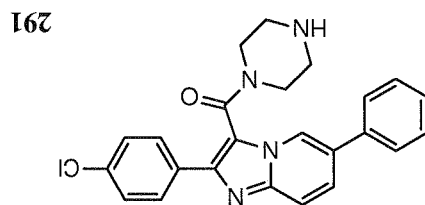
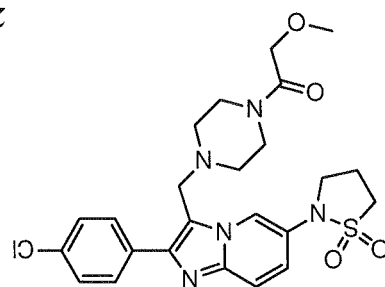
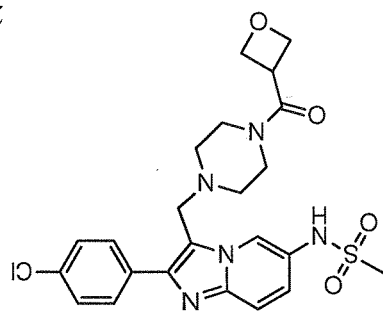
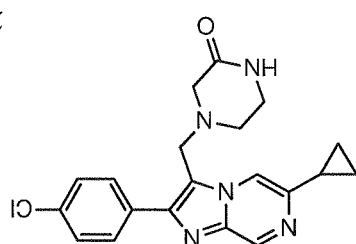
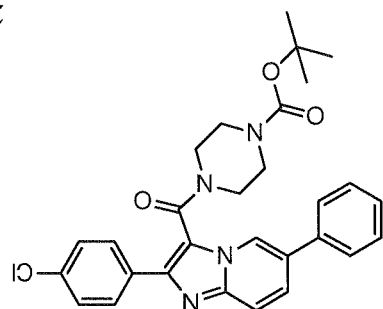
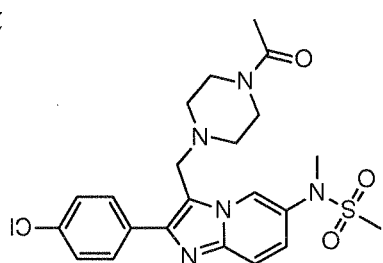
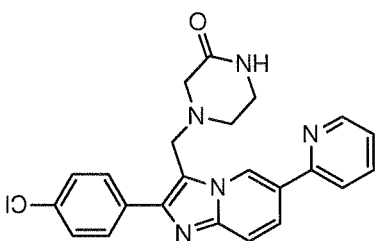
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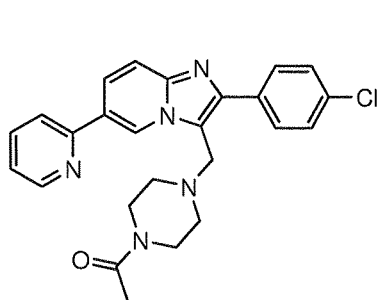


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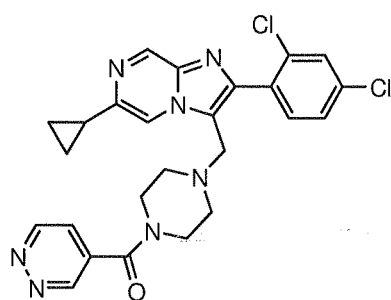


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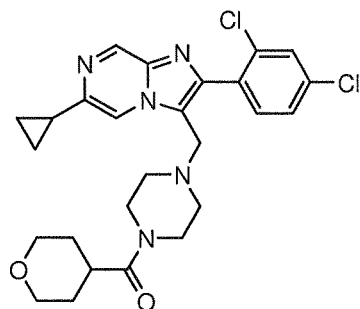




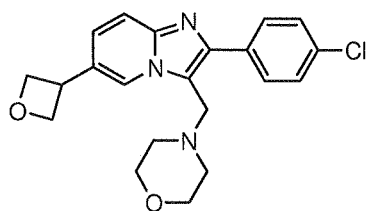
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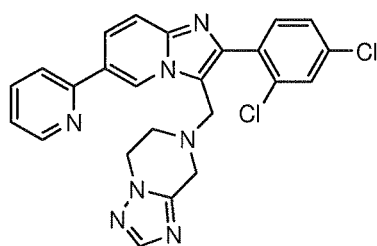
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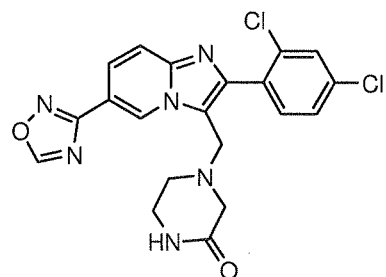
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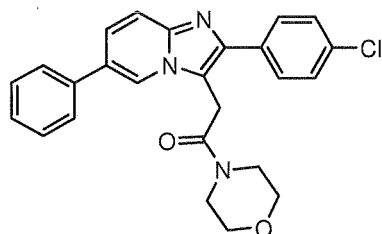
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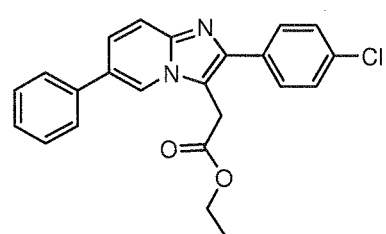
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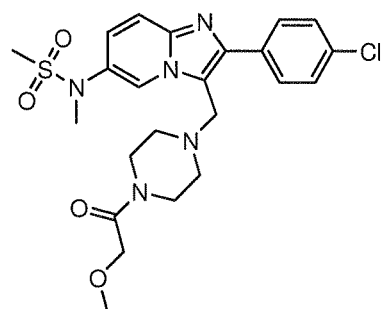
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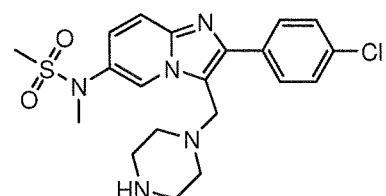
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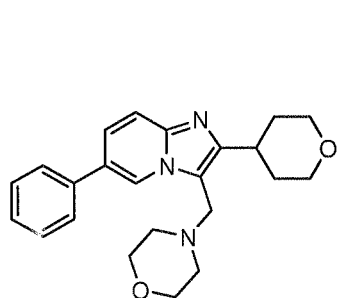
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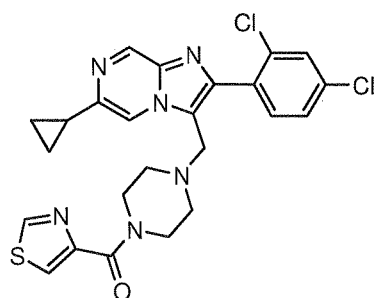
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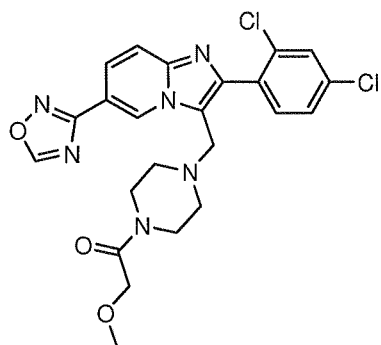
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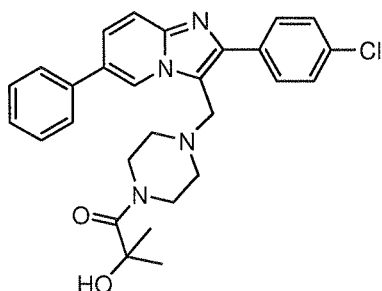
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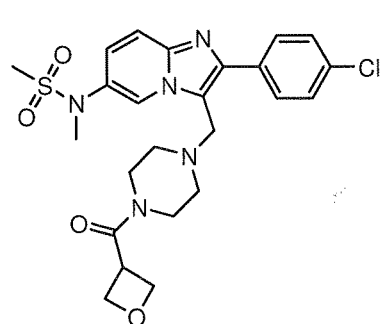
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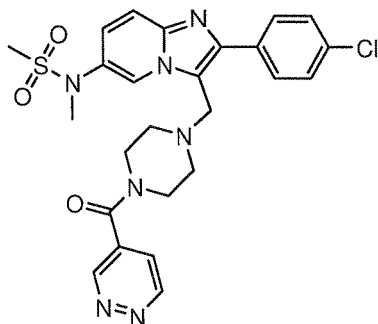
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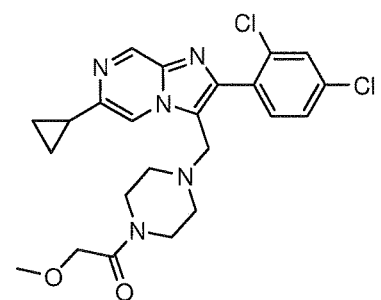
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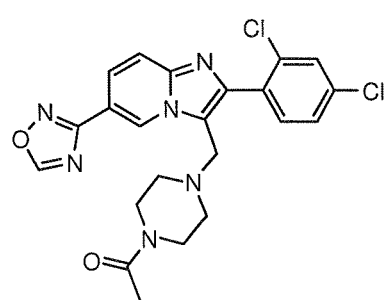
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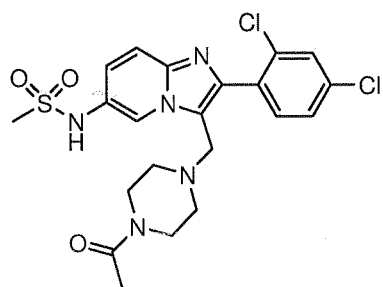
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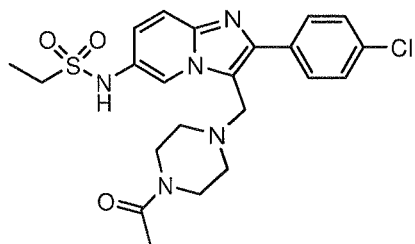
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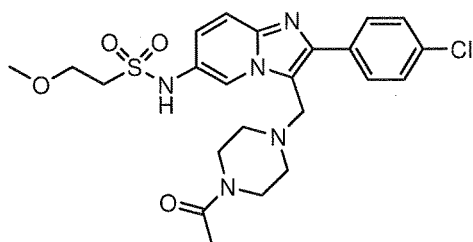
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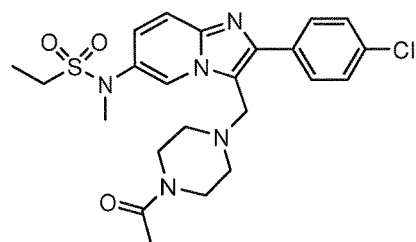
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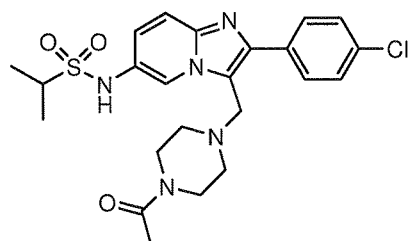
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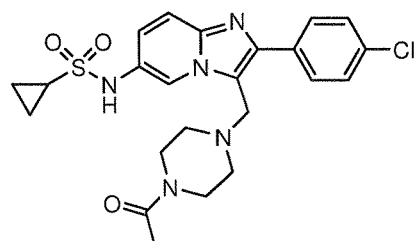
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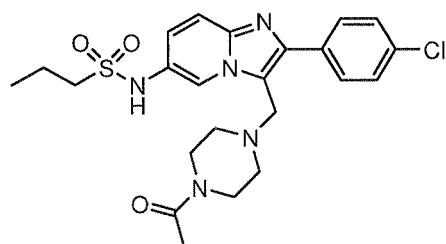
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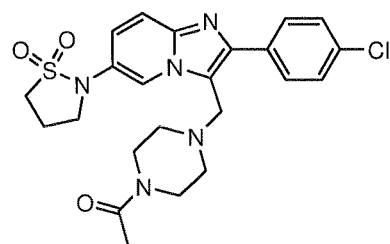
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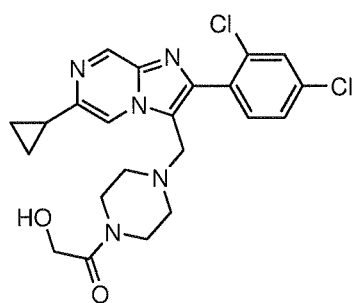
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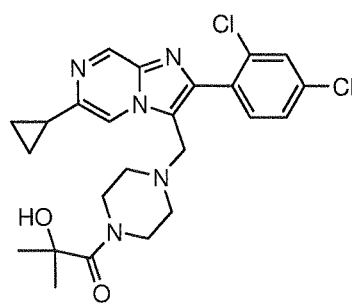
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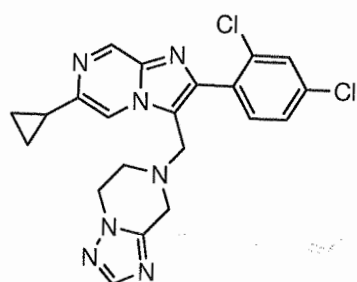
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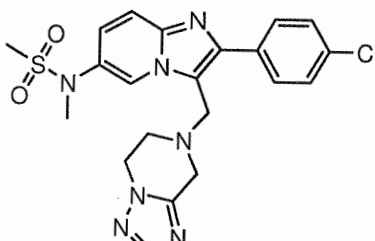
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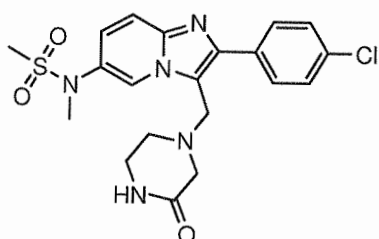
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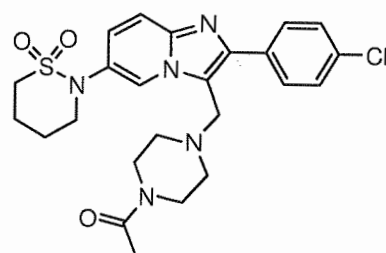
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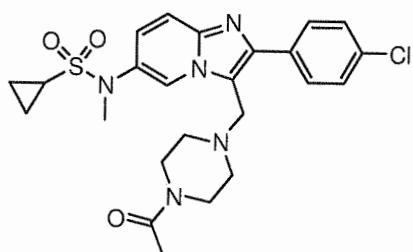
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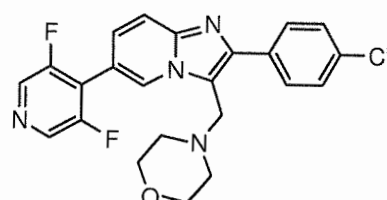
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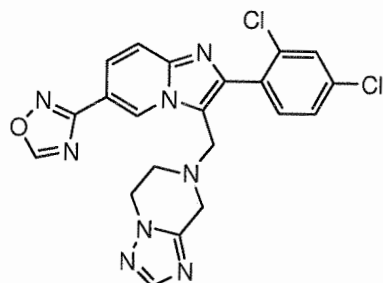
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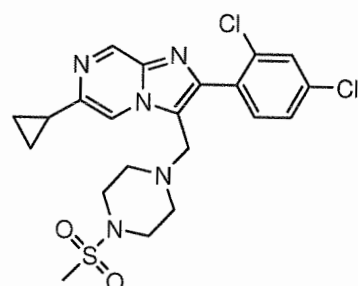
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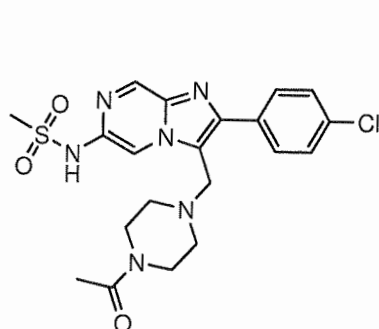
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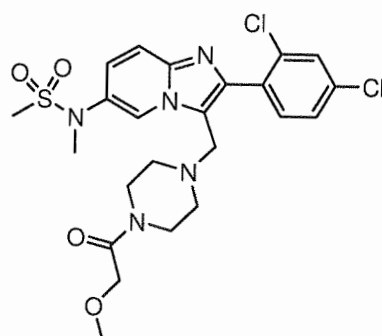
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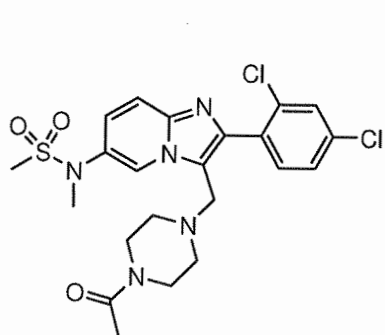
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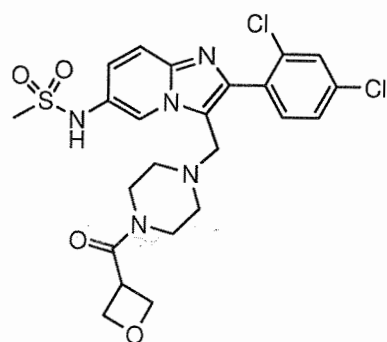
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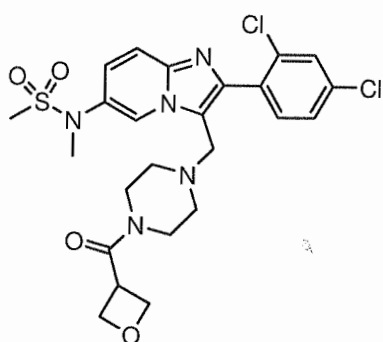
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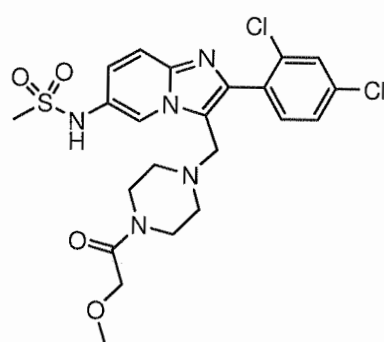
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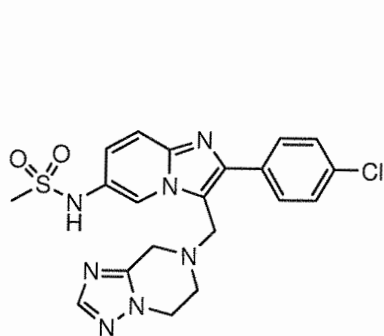
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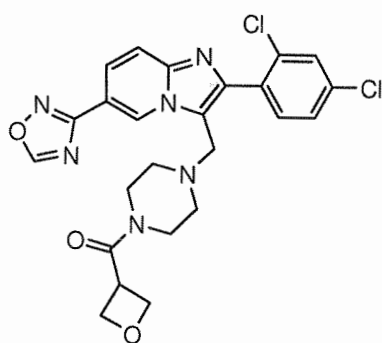
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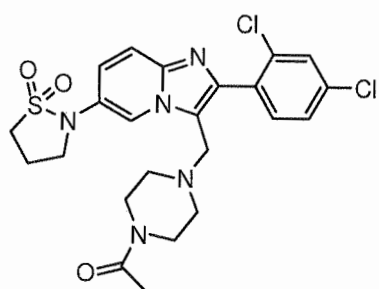
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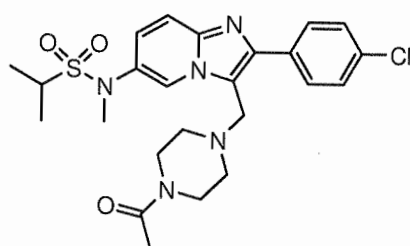
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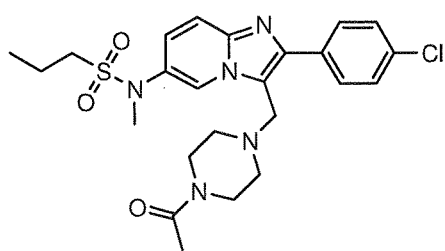
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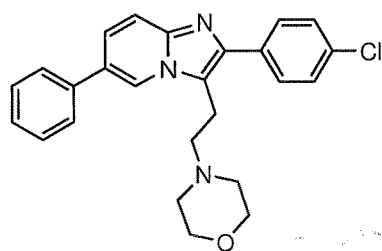
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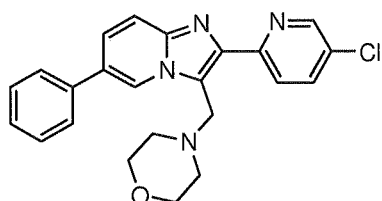
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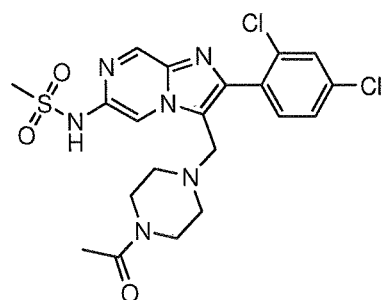
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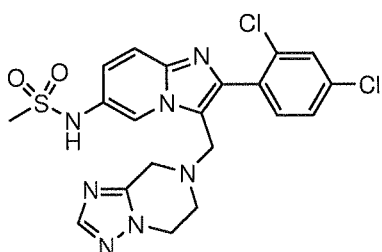
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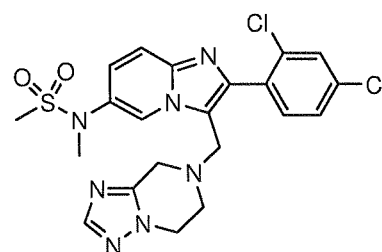
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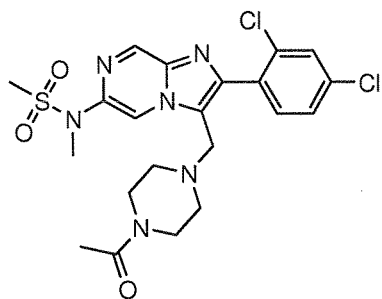
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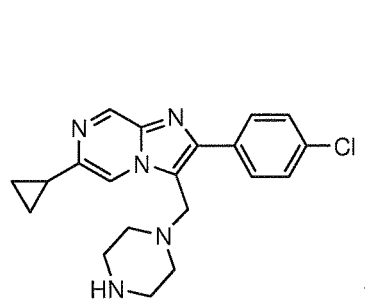
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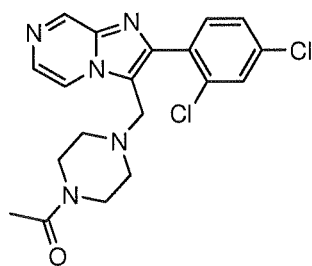
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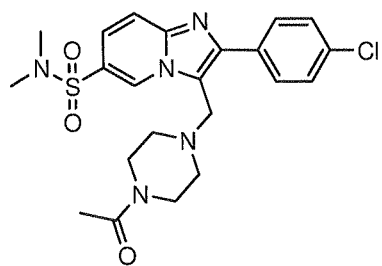
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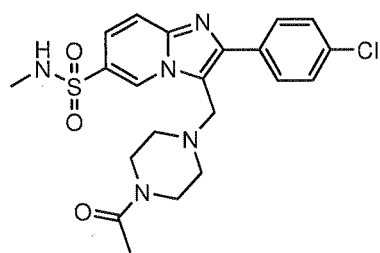
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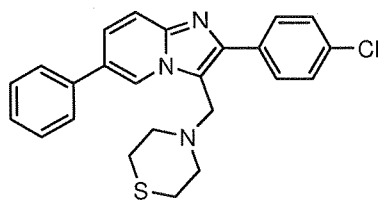
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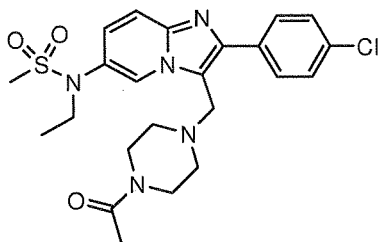
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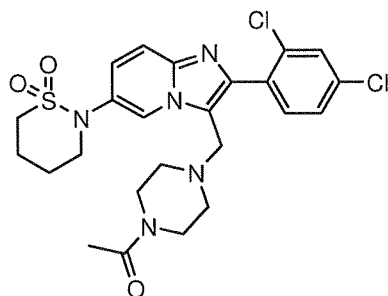
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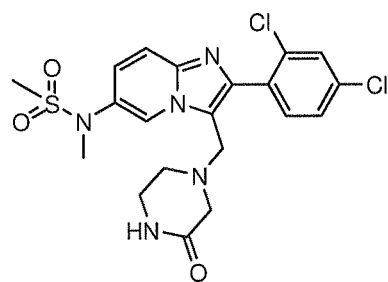
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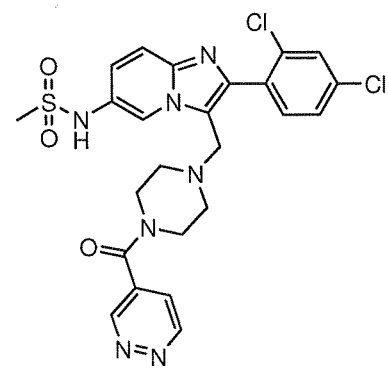
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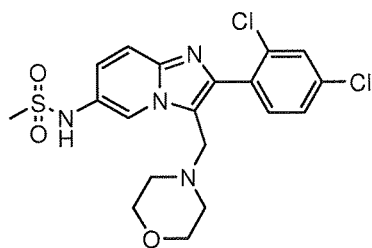
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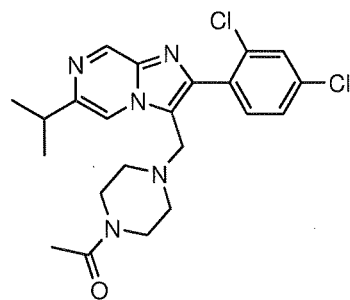
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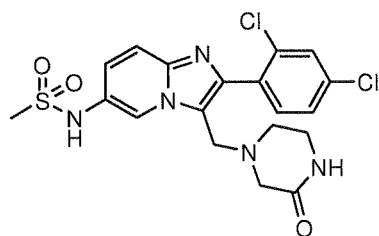
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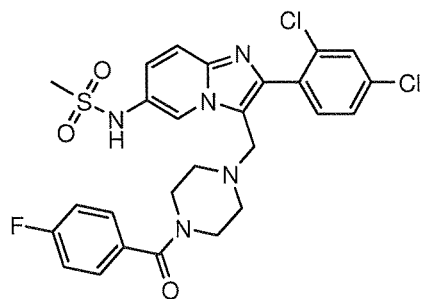
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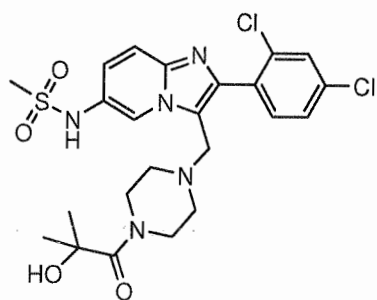
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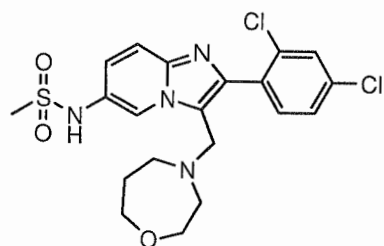
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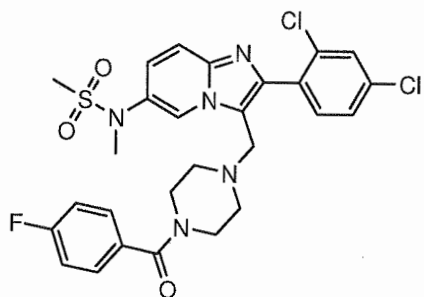
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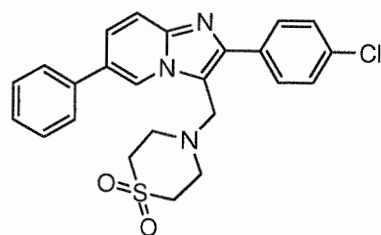
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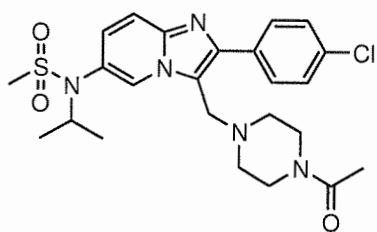
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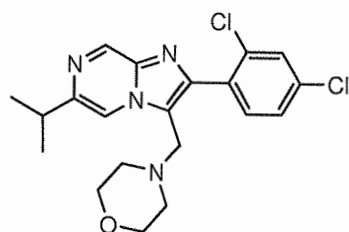
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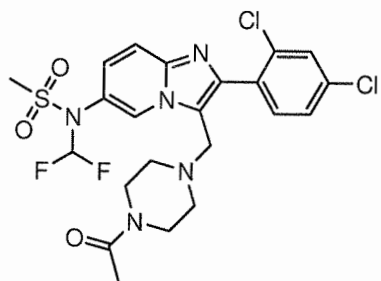
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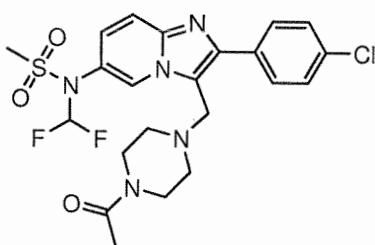
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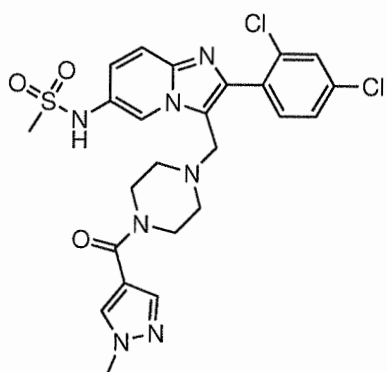
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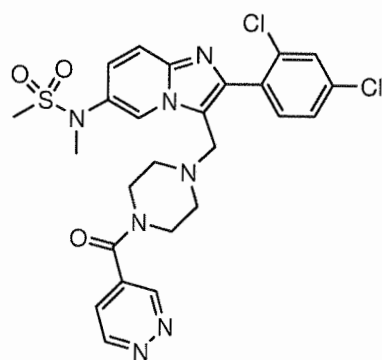
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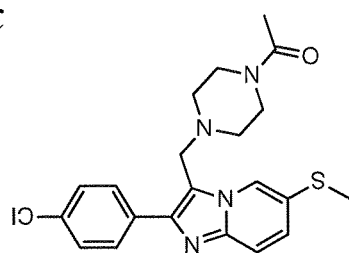
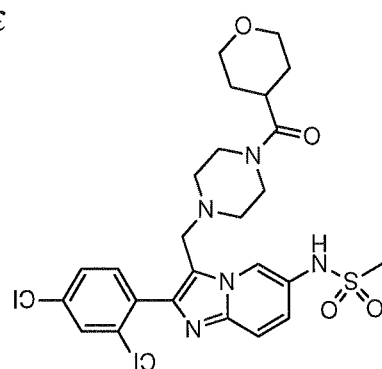
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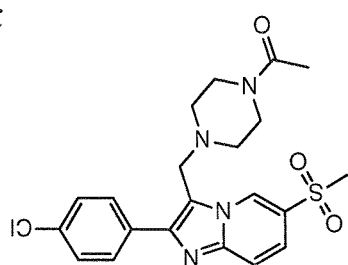
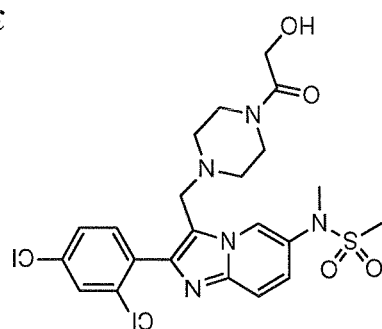
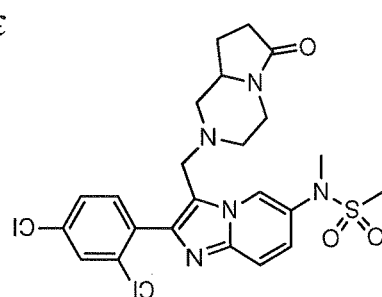
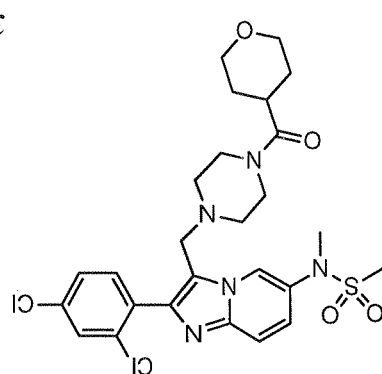


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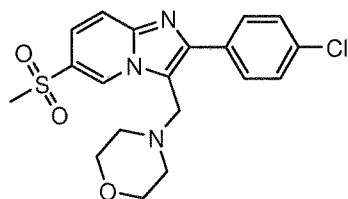


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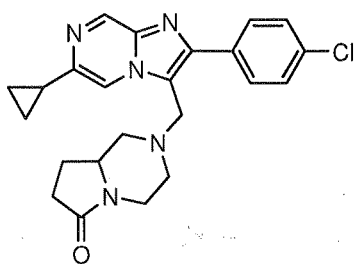
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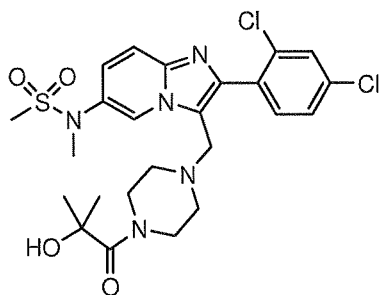
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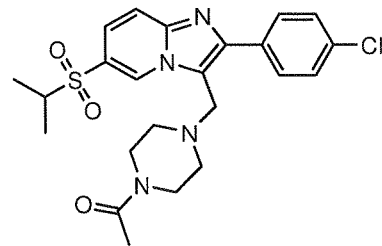
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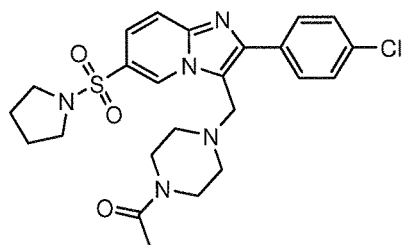
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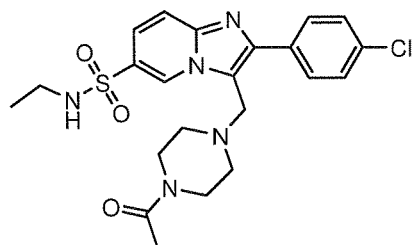
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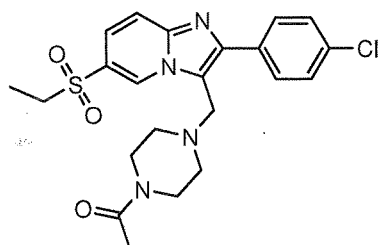
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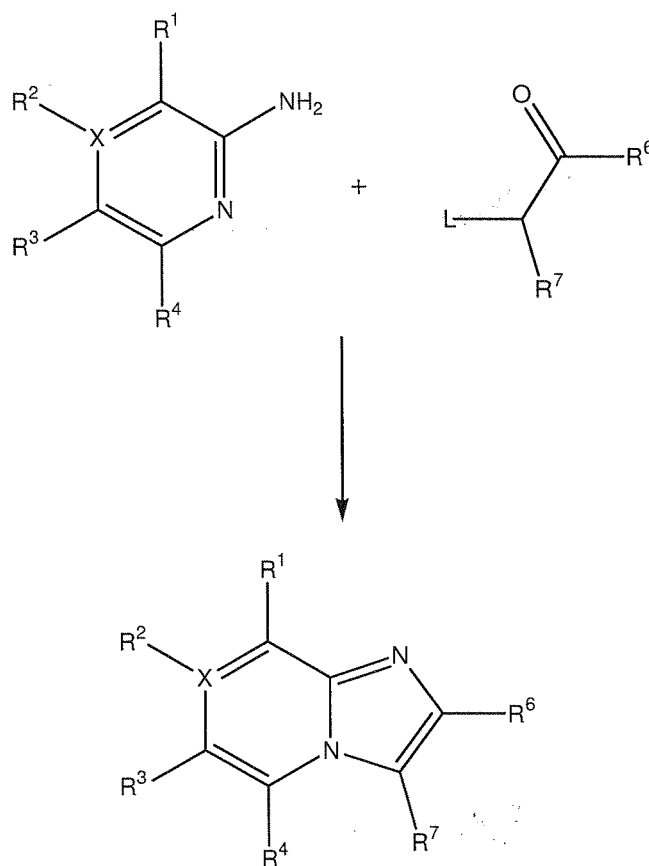
385

32. A compound according to any of claims 29-31, which compound comprises:

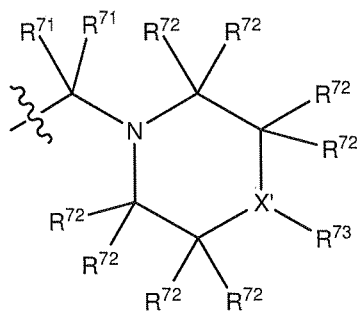
- an isolated enantiomer, or
- a mixture of two or more enantiomers, or
- a mixture of two or more diastereomers, and/or epimers, or
- a racemic mixture.

33. A method of synthesis of a compound as defined in any of claims 29-32, which method comprises reacting a substituted or unsubstituted pyridine compound with a substituted or unsubstituted ketone compound in a ring forming step.

34. A method of synthesis according to claim 33, which method comprises a ring-forming step as follows:



wherein R^7 comprises the following group:



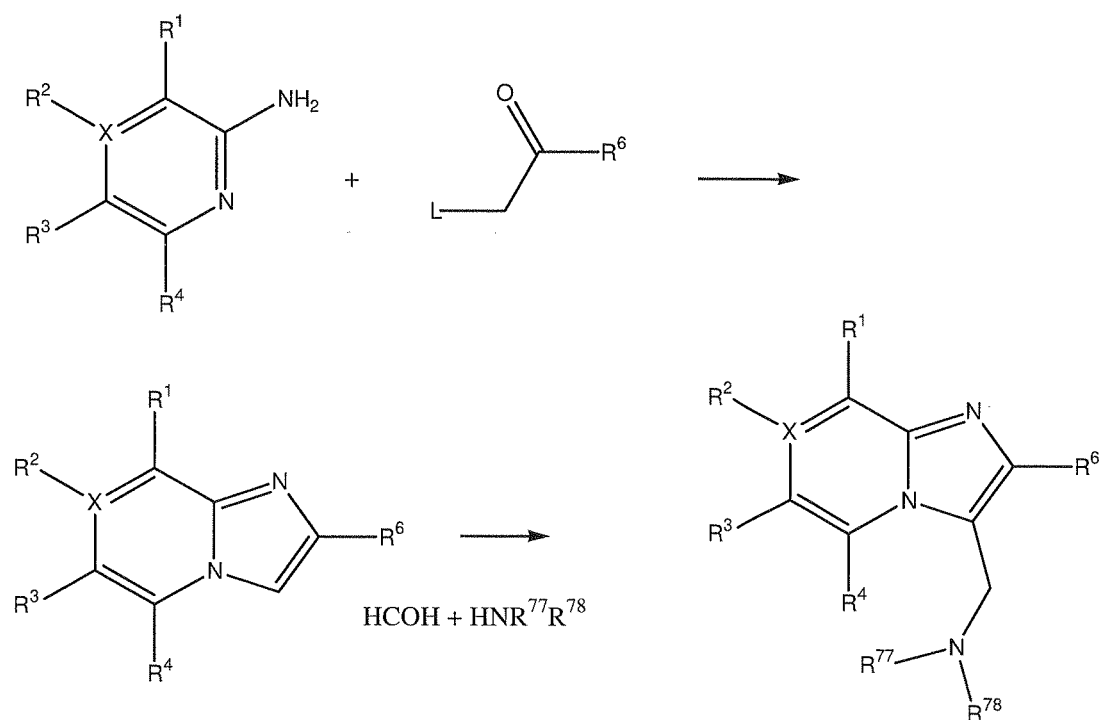
wherein L is a leaving group; X is C or N; X' is C, N, or S; and wherein R^1 , R^2 , R^3 , R^4 and R^6 are independently selected from H or an organic group; and wherein when X is N R^2 is absent; optionally wherein when any of R^1 , R^2 , R^3 , R^4 , R^6 and R^7 is H, the method comprises a further step of substituting that H with an organic group; preferably wherein the R^1 , R^2 , R^3 , R^4 and R^6 groups are substituents as defined in any of claims 1-12.

35. A method according to claim 33 or claim 34, wherein L is selected from the following:

- a halogen (such as F, Cl, Br, and I);
- an OH and an alkoxy group (such as -OMe, -OEt, -OPr, and -OPh);
- N_2^+ , OR'_2^+ , $-OSO_2C_4F_9$, $-OSO_2CF_3$, $-OSO_2F$, a tosylate (-OTs), a mesylate (-OMs), $-OH_2^+$, an acyl halide (such as $-CO-F$, $-CO-Cl$, $-CO-Br$, $-CO-I$), $-OH(C_1-C_6 \text{ alkyl})^+$, $-ONO_2$, $-OPO(OH)_2$, an inorganic ester, $-S(C_1-C_6 \text{ alkyl})_2^+$, $-N(C_1-C_6 \text{ alkyl})_3^+$, $-OCO(C_1-C_6 \text{ alkyl})$, and $-NH_3^+$.

36. A method according to any of claims 33-35, wherein the ring-forming step is carried out by refluxing under acid or base catalysis.

37. A method according to any of claims 33-36, which method comprises the following steps:



wherein R^{77} and R^{78} may alone or together form any of the compounds as defined in claims 29-32.

38. A method according to claim 37, wherein $HNR^{77}R^{78}$ is selected from a substituted or unsubstituted piperazine compound, and a substituted or unsubstituted morpholine compound.

39. A method for screening for a SLC2A class I transporter inhibitor compound having a structure as defined in any of claims 29-32, which method comprises

- (a) contacting a receptor having a SLC2A class I transporter function with a test compound;
- (b) measuring the transport of a species across the receptor, which species is one whose transport is facilitated by a SLC2A class I transporter; and
- (c) determining whether the test compound is a SLC2A class I transporter inhibitor from the measurements taken in step (b).

40. A method according to claim 39, which method comprises:

(a) contacting a cell comprising a SLC2A class I transporter with a test compound;

(b) measuring the transport of a species across a membrane of the cell, which species is one whose transport across the membrane is facilitated by a SLC2A class I transporter; and

(c) determining whether the test compound is a SLC2A class I transporter inhibitor from the measurements taken in step (b).

41. A method according to claim 39 or claim 40, wherein the species is selected from a substituted or unsubstituted carbohydrate compound, a substituted or unsubstituted sugar compound, and a mixture of two or more of the above.

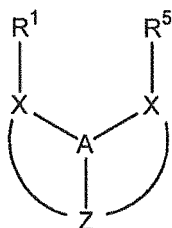
42. A method according to claim 41, wherein the species comprises a substituted or unsubstituted glucose, preferably radiolabelled glucose.

43. A method according to any of claims 40-42, wherein the cell is a cell that has been transfected such that it comprises a SLC2A class I transporter at its surface.

44. A compound, composition or method according to any preceding claim, wherein the SLC2A class I transporter is selected from GLUT1, GLUT2, GLUT3, GLUT4 and GLUT14.

CLAIMS:

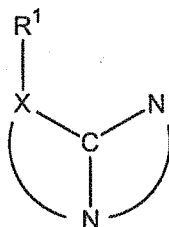
1. An SLC2A class I transporter inhibitor compound for use in medicine, which compound comprises the following formula:



wherein A and Z may be the same or different and are each independently selected from C and N; each X may be the same or different and is independently selected from C, N, O and S; R¹ and R⁵ may be present or absent and may be the same or different and are each selected from H and a substituted or unsubstituted organic group; R¹ and R⁵ may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; Z completes a ring with each X, each ring comprising from 3 to 8 ring atoms including the X, A, and Z, each ring atom being independently selected from C, N, O and S, and each ring atom being unsubstituted or independently substituted with H or a substituted or unsubstituted organic group; and wherein the bonds between all of the atoms in the rings including the X, A, and Z may independently be single bonds or double bonds, provided that when X or a ring atom is O or S the bonds to X are single bonds.

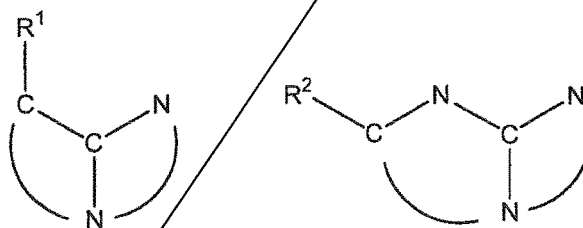
2. A compound for use in medicine according to claim 1, wherein:
- (a) one of Z or A is N, preferably wherein Z is N, preferably wherein Z is N and A is C; or
 - (b) both of Z and A are C.

3. A compound for use in medicine according to claim 1 or claim 2, which compound comprises the following formula:



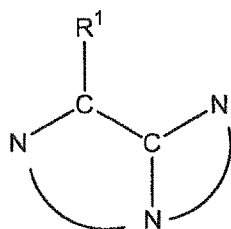
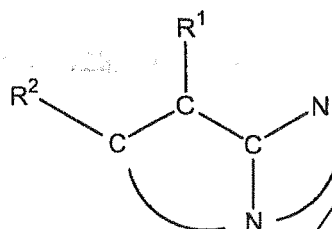
wherein R¹ and X and the rings are as defined in claim 1; and wherein the bonds between all of the atoms in the rings including the X, C, and N may independently be single bonds or double bonds.

4. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:



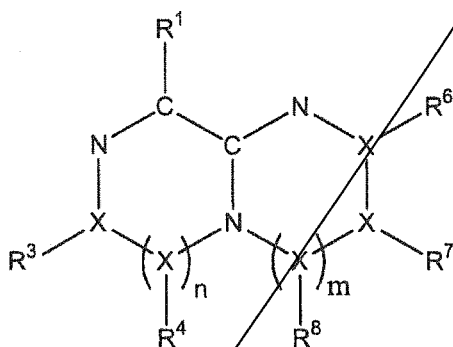
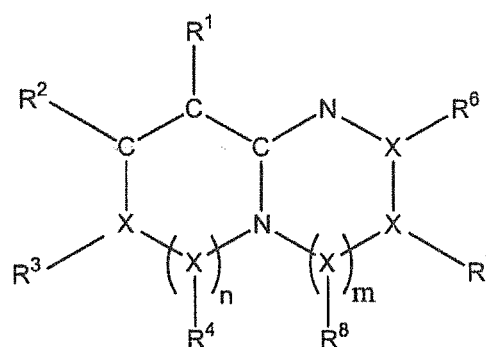
wherein R¹ and the rings are as defined in claim 1; R² is selected from H and a substituted or unsubstituted organic group; and wherein the bonds between all of the atoms in the rings including the C and N may independently be single bonds or double bonds.

5. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:



wherein R^1 and the rings are as defined in claim 1; R^1 and R^2 may be the same or different; R^2 is selected from H and a substituted or unsubstituted organic group; wherein R^1 and R^2 may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; and wherein the bonds between all of the atoms in the rings including the C and N may independently be single bonds or double bonds.

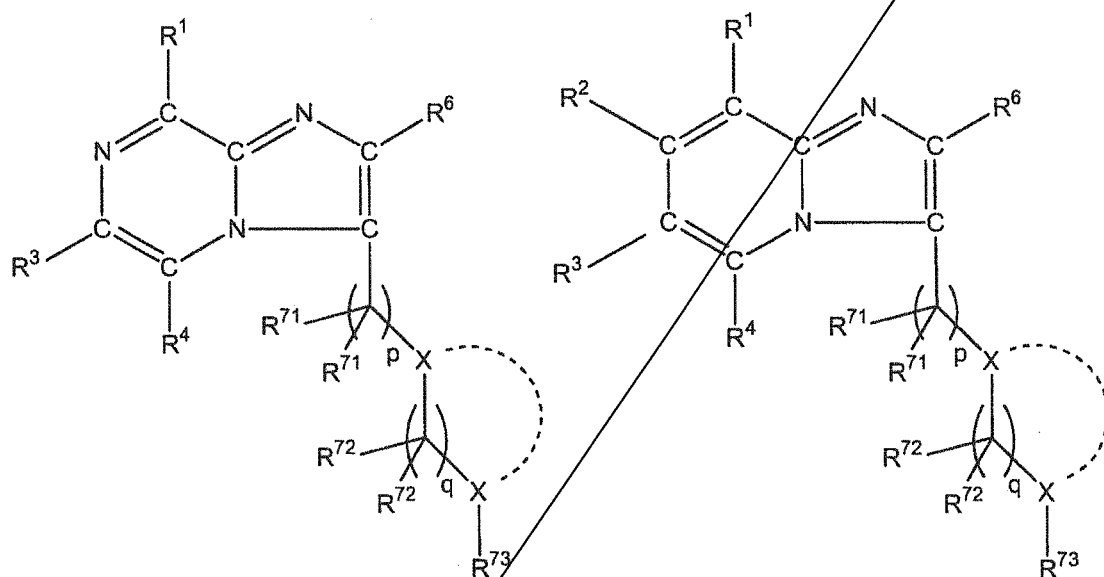
6. A compound for use in medicine according any preceding claim, which compound comprises a formula selected from one of the following:



wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 and R^8 may be the same or different and are independently selected from H and a substituted or unsubstituted organic group; each X is selected from C, N, O and S; when X is O or S the corresponding R group is absent; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; n is an integer of 0, 1 or 2; and m is an integer of 0, 1 or 2; and wherein the bonds between all of the atoms in the rings including the X, C and N may independently be single bonds or double bonds provided that when X is O or S the bonds to

X are single bonds; preferably wherein each X is C; and/or preferably wherein $n=1$; and/or preferably wherein $m=0$; and/or preferably wherein R^1 is H; and/or preferably wherein R^4 is H or Me; and/or preferably wherein R^3 , R^6 and R^7 are not H.

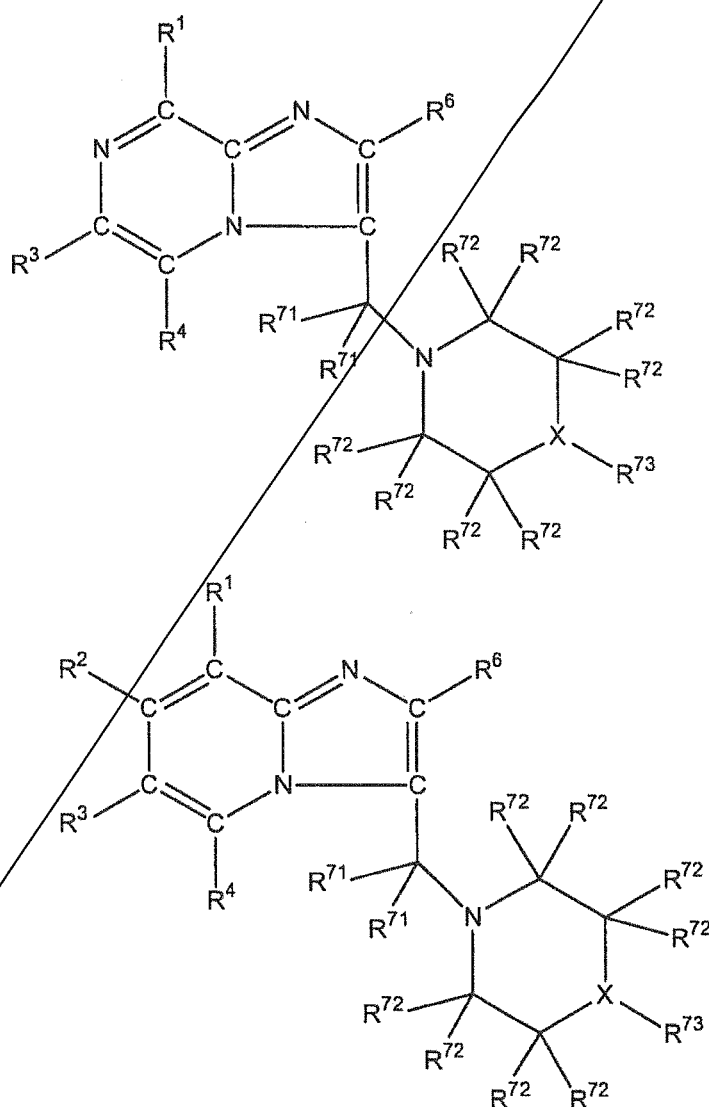
7. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:



wherein each R^{71} , each R^{72} may be the same or different and are independently selected from H and a substituted or unsubstituted organic group; two R^{71} groups and/or two R^{72} groups may together form a carbonyl group; each X is selected from C, N, O and S; R^{73} is absent when its X atom is O or S and may be the same or different as R^{71} and R^{72} and is independently selected from H and a substituted or unsubstituted organic group; p is an integer of from 0 to 6; and q is an integer of from 0 to 6; and optionally wherein the X groups may complete a ring with each other, each ring atom being the same or different and being independently selected from C, N, O and S, and each ring atom being unsubstituted or independently substituted with H or a substituted or unsubstituted organic group, and wherein the bonds between all of the atoms in the ring including X atoms and C atoms may independently be single bonds or double bonds; and wherein an R^{72} and R^{73} may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; preferably wherein the X atom closest to the fused ring system is N and

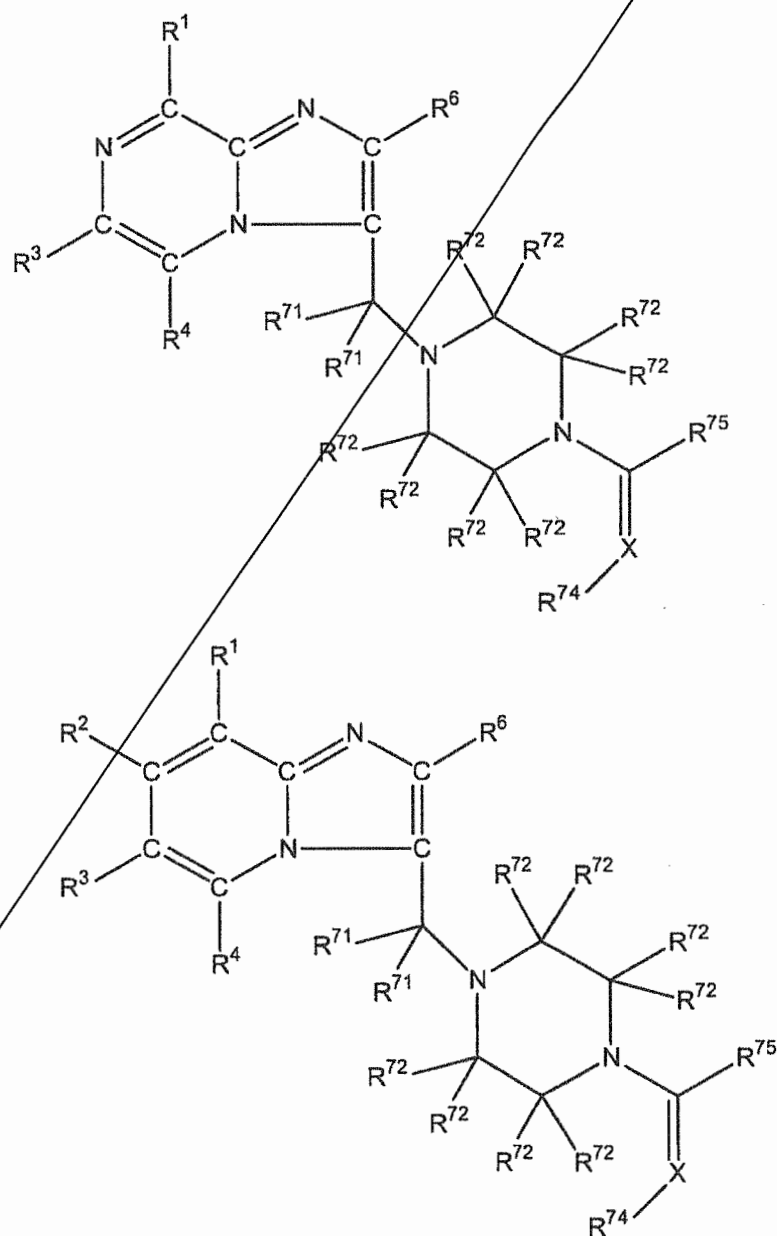
the X atom furthest from the fused ring system is N, O or S; and/or preferably wherein $p=1$ or 2 and/or $q=2$ or 3; and/or preferably wherein the X atoms complete a six membered ring in which all ring bonds are single bonds; and/or preferably wherein R^{73} comprises a substituted or unsubstituted group comprising a carbonyl group; and/or preferably wherein R^1 is H, R^2 is H, R^4 is H or Me, R^3 is not H, R^6 is not H, each R^{71} is H, and each R^{72} is H.

8. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:



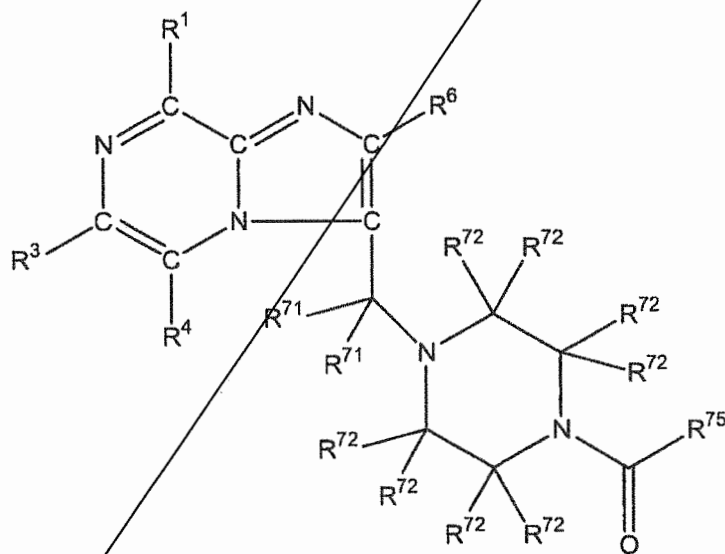
wherein X is independently selected from N, O and S; wherein R^{73} is absent when its X is O or S and is selected from H and a substituted or unsubstituted organic group; preferably wherein R^{73} comprises an unsubstituted or substituted acyl group; and/or preferably wherein X is N; and/or preferably wherein R^1 is H, R^2 is H, R^4 is H or Me, R^3 is not H, R^6 is not H, each R^{71} is H, and each R^{72} is H.

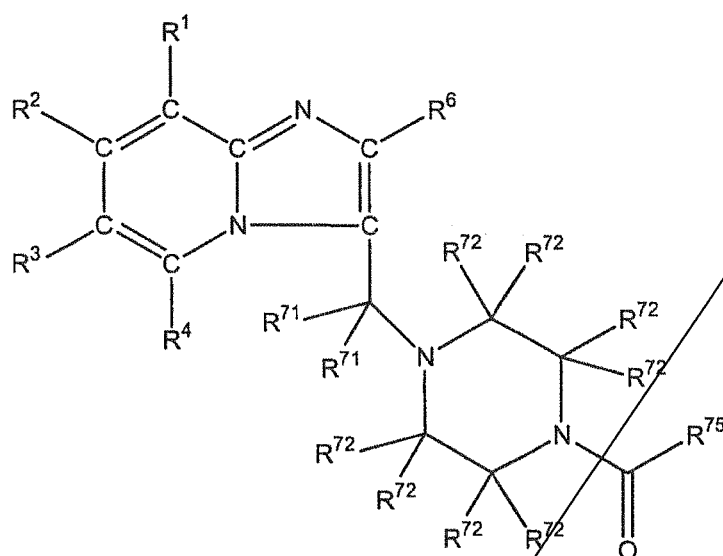
9. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:



wherein X is independently selected from N, O and S; R^{74} is absent when X is O or S and is selected from H and a substituted or unsubstituted organic group when X is N; and R^{75} is selected from H and a substituted or unsubstituted organic group; preferably wherein X is O and/or R^{75} is a substituted or unsubstituted group selected from a linear or branched alkyl group, and an aliphatic or aromatic saturated or unsaturated homocyclic or heterocyclic ring such as a cycloalkyl group, a saturated or unsaturated heterocyclic group, and an aryl group; and/or preferably wherein R^1 is H, R^2 is H, R^4 is H or Me, R^3 is not H, R^6 is not H, each R^{71} is H, and each R^{72} is H.

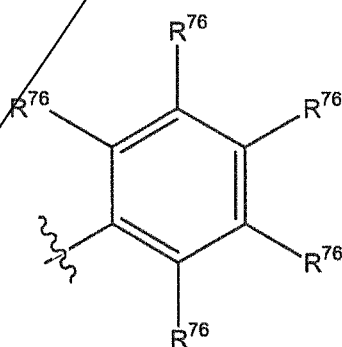
10. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:





wherein R⁷⁵ is a substituted or unsubstituted organic group selected from: a linear or branched alkyl group, a cycloalkyl group, a saturated or unsaturated heterocyclic group, and an aryl group; preferably wherein R¹ is H, R² is H, R⁴ is H or Me, R³ is not H, R⁶ is not H, each R⁷¹ is H, each R⁷² is H;

preferably wherein R⁷⁵ is a group having the following structure:



wherein each R⁷⁶ may be the same or different and is independently selected from H and a substituted or unsubstituted organic group; preferably wherein R¹ is H, R² is H, R⁴ is H or Me, R³ is not H, R⁶ is not H, each R⁷¹ is H, each R⁷² is H, and at least one of R⁷⁶ is not H.

11. A compound for use in medicine according to any preceding claim, wherein R³ is H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);

- a linear or branched C₁-C₆ alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl); preferably a C₃-C₆ alkyl group (such as propyl (Pr), iso-propyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl);

- a linear or branched C₁-C₆ alkyl-aryl group (such as -CH₂Ph, -CH₂(2,3 or 4)F-Ph, -CH₂(2,3 or 4)Cl-Ph, -CH₂(2,3 or 4)Br-Ph, -CH₂(2,3 or 4)I-Ph, -CH₂CH₂Ph, -CH₂CH₂CH₂Ph, -CH₂CH₂CH₂CH₂Ph, -CH₂CH₂CH₂CH₂CH₂Ph, and -CH₂CH₂CH₂CH₂CH₂CH₂Ph);

- a linear or branched C₁-C₆ halogenated alkyl group (such as -CH₂F, -CH₂Cl, -CH₂Br, -CH₂I, -CF₃, -CCl₃, -CBr₃, -Cl₃, -CH₂CF₃, -CH₂CCl₃, -CH₂CBr₃, and -CH₂Cl₃);

- a linear or branched primary secondary or tertiary C₁-C₆ amine group (such as -NH₂, -NMeH, -NMe₂, -NEtH, -NEtMe, -NEt₂, -NPrH, -NPrMe, -NPrEt, -NPr₂, -NBuH, -NBuMe, -NBuEt, -CH₂-NH₂, -CH₂-NMeH, -CH₂-NMe₂, -CH₂-NEtH, -CH₂-NEtMe, -CH₂-NEt₂, -CH₂-NPrH, -CH₂-NPrMe, and -CH₂-NPrEt);

- a amino-aryl group (such as -NH-Ph, -NH-(2,3 or 4)F-Ph, -NH-(2,3 or 4)Cl-Ph, -NH-(2,3 or 4)Br-Ph, -NH-(2,3 or 4)I-Ph, -NH-(2,3 or 4)Me-Ph, -NH-(2,3 or 4)Et-Ph, -NH-(2,3 or 4)Pr-Ph, -NH-(2,3 or 4)Bu-Ph, -NH-(2,3 or 4)OMe-Ph, -NH-(2,3 or 4)OEt-Ph, -NH-(2,3 or 4)OPr-Ph, -NH-(2,3 or 4)OBu-Ph, -NH-2,(3,4,5 or 6)F₂-Ph, -NH-2,(3,4,5 or 6)Cl₂-Ph, -NH-2,(3,4,5 or 6)Br₂-Ph, -NH-2,(3,4,5 or 6)I₂-Ph, -NH-2,(3,4,5 or 6)Me₂-Ph, -NH-2,(3,4,5 or 6)Et₂-Ph, -NH-2,(3,4,5 or 6)Pr₂-Ph, -NH-2,(3,4,5 or 6)Bu₂-Ph);

- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl,

morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);

- a cyclic C₃-C₈ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);

- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);

- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);

- a linear or branched carbonyl group (such as -(CO)Me, -(CO)Et, -(CO)Pr, -(CO)iPr, -(CO)nBu, -(CO)iBu, -(CO)tBu, -(CO)Ph, -(CO)CH₂Ph, -(CO)CH₂OH, -(CO)CH₂OCH₃, -(CO)CH₂NH₂, -(CO)CH₂NHMe, -(CO)CH₂NMe₂, -(CO)-cyclopropyl, -(CO)-1,3-epoxypropan-2-yl, -(CO)NH₂, -(CO)NHMe, -(CO)NMe₂, -(CO)NH₂Et, -(CO)NEt₂, -(CO)-pyrrolidine-N-yl, -(CO)-morpholine-N-yl, -(CO)-piperazine-N-yl, -(CO)-N-methyl-piperazine-N-yl, -(CO)NHCH₂CH₂OH, -(CO)NHCH₂CH₂OMe, -(CO)NHCH₂CH₂NH₂, -(CO)NHCH₂CH₂NHMe, and -(CO)NHCH₂CH₂NMe₂;

- a linear or branched C₁-C₆ carboxylic acid ester group (such as -COOMe, -COOEt, -COOPr, -COO-i-Pr, -COO-n-Bu, -COO-i-Bu, -COO-t-Bu, -CH₂COOMe, -CH₂CH₂COOMe, -CH₂CH₂CH₂COOMe, and -CH₂CH₂CH₂CH₂COOMe);

- a linear or branched C₁-C₆ amide group (such as -CO-NH₂, -CO-NMeH, -CO-NMe₂, -CO-NEtH, -CO-NEtMe, -CO-NEt₂, -CO-NPrH, -CO-NPrMe, and -CO-NPrEt);

- a linear or branched C₁-C₇ amino carbonyl group (such as -NH-CO-Me, -NH-CO-Et, -NH-CO-Pr, -NH-CO-Bu, -NH-CO-pentyl, -NH-CO-hexyl, -NH-CO-Ph, -NMe-CO-Me, -NMe-CO-Et, -NMe-CO-Pr, -NMe-CO-Bu, -NMe-CO-pentyl, -NMe-CO-hexyl, -NMe-CO-Ph);
- a linear or branched C₁-C₇ alkoxy or aryloxy group (such as -OMe, -OEt, -OPr, -O-i-Pr, -O-n-Bu, -O-i-Bu, -O-t-Bu, -O-pentyl, -O-hexyl, -OCH₂F, -OCHF₂, -OCF₃, -OCH₂Cl, -OCHCl₂, -OCCl₃, -O-Ph, -O-CH₂-Ph, -O-CH₂-(2,3 or 4)-F-Ph, -O-CH₂-(2,3 or 4)-Cl-Ph, -CH₂OMe, -CH₂OEt, -CH₂OPr, -CH₂OBu, -CH₂CH₂OMe, -CH₂CH₂CH₂OMe, -CH₂CH₂CH₂CH₂OMe, and -CH₂CH₂CH₂CH₂CH₂OMe);
- a linear or branched aminoalkoxy group (such as -OCH₂NH₂, -OCH₂NHMe, -OCH₂NMe₂, -OCH₂NHEt, -OCH₂NEt₂, -OCH₂CH₂NH₂, -OCH₂CH₂NHMe, -OCH₂CH₂NMe₂, -OCH₂CH₂NHEt, and -OCH₂CH₂NEt₂);
- a sulphonyl group (such as -SO₂Me, -SO₂Et, -SO₂Pr, -SO₂iPr, -SO₂Ph, -SO₂-(2,3 or 4)-F-Ph, -SO₂-cyclopropyl, -SO₂CH₂CH₂OCH₃);
- a sulphonylamino group (such as -SO₂NH₂, -SO₂NHMe, -SO₂NMe₂, -SO₂NHEt, -SO₂NEt₂, -SO₂-pyrrolidine-N-yl, -SO₂-morpholine-N-yl, -SO₂NHCH₂OMe, and -SO₂NHCH₂CH₂OMe);
- an aminosulphonyl group (such as -NHSO₂Me, -NHSO₂Et, -NHSO₂Pr, -NHSO₂iPr, -NHSO₂Ph, -NHSO₂-(2,3 or 4)-F-Ph, -NHSO₂-cyclopropyl, -NHSO₂CH₂CH₂OCH₃);
- a cyclic aminosulphonyl- group (such as -N(SO₂)(CH₂)₃ and -N(SO₂)(CH₂)₄);
- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-,

3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and

- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

preferably wherein R³ is selected from the following:

- an unsubstituted, 2-monosubstituted, or 2,6-disubstituted phenyl group, preferably where the substituent is selected from F, Cl and CN (such as Ph-, 2-F-Ph-, 2,6-F₂-Ph-, 2-Cl-Ph-, 2,6-Cl₂-Ph-, 2-CN-Ph-, 2,6-(CN)₂-Ph-, 2,6-F,CN-Ph-, 2,6-F,Cl-Ph-, and 2,6-Cl,CN-Ph-);

- an unsubstituted or 3-monosubstituted pyridine-2-yl, or a 2,6-disubstituted pyridine-4-yl group, preferably where the substituent is selected from F, Cl and CN (such as Pyr-2-yl, Pyr-3-yl, Pyr-4-yl, 3-F-Pyr-2-yl, 3-Cl-Pyr-2-yl, 3-CN-Pyr-2-yl, 2,6-F₂-Pyr-4-yl, 2,6-Cl₂-Pyr-4-yl and 2,6-(CN)₂-Pyr-4-yl);

- an unsubstituted or 4-substituted pyrid-1,2-azine-3-yl group, preferably where the substituent is selected from F, Cl and CN (such as pyridazine-3-yl, 4-F-pyridazine-3-yl, 4-Cl-pyridazine-3-yl, and 4-CN-pyridazine-3-yl);

- a substituted or unsubstituted 1,2,4-oxadiazol-3-yl group;
- a cyclic aminosulphonyl- group (such as $-\text{N}(\text{SO}_2)(\text{CH}_2)_3$ and $-\text{N}(\text{SO}_2)(\text{CH}_2)_4$);
- a linear or branched aminosulphonyl group (such as $-\text{NH}-\text{SO}_2-\text{Me}$, $-\text{NH}-\text{SO}_2-\text{Et}$, $-\text{NH}-\text{SO}_2-\text{iPr}$, $-\text{NH}-\text{SO}_2-\text{cycloPr}$, $-\text{NH}-\text{SO}_2-\text{Pr}$, $-\text{NH}-\text{SO}_2-\text{EtOMe}$, $-\text{NMe}-\text{SO}_2-\text{Me}$, $-\text{NMe}-\text{SO}_2-\text{Et}$, $-\text{NMe}-\text{SO}_2-\text{iPr}$, $-\text{NMe}-\text{SO}_2-\text{cycloPr}$, $-\text{NMe}-\text{SO}_2-\text{Pr}$, $-\text{NMe}-\text{SO}_2-\text{EtOMe}$, $-\text{NEt}-\text{SO}_2-\text{Me}$, $-\text{NEt}-\text{SO}_2-\text{Et}$, $-\text{NEt}-\text{SO}_2-\text{iPr}$, $-\text{NEt}-\text{SO}_2-\text{cycloPr}$, $-\text{NEt}-\text{SO}_2-\text{Pr}$, $-\text{NEt}-\text{SO}_2-\text{EtOMe}$, $-\text{NiPr}-\text{SO}_2-\text{Me}$, $-\text{NiPr}-\text{SO}_2-\text{Et}$, $-\text{NiPr}-\text{SO}_2-\text{iPr}$, $-\text{NiPr}-\text{SO}_2-\text{cycloPr}$, $-\text{NiPr}-\text{SO}_2-\text{Pr}$, $-\text{NiPr}-\text{SO}_2-\text{EtOMe}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{Me}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{Et}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{iPr}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{cycloPr}$, $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{Pr}$, and $-\text{N}(\text{CHF}_2)-\text{SO}_2-\text{EtOMe}$);
- a linear or branched sulphonylamino group (such as $-\text{SO}_2-\text{NH}_2$, $-\text{SO}_2-\text{NHMe}$, $-\text{SO}_2-\text{NHEt}$, $-\text{SO}_2-\text{NMe}_2$, $-\text{SO}_2-\text{NMeEt}$, $-\text{SO}_2-\text{NHEt}_2$, and $-\text{SO}_2-\text{pyrrolidin-N-yl}$);
- a linear or branched sulphonyl group (such as $-\text{SO}_2\text{Me}$, $-\text{SO}_2\text{Et}$, $-\text{SO}_2\text{Pr}$, $-\text{SO}_2\text{iPr}$);
- a thioether group (such as $-\text{SMe}$, $-\text{SEt}$, $-\text{SPr}$, and SiPr); and
- an isopropyl, cyclopropyl and a propen-2-yl group;

12. A compound for use in medicine according to any preceding claim, wherein R^6 is H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);
- a linear or branched C_1-C_6 alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl).
- a linear or branched C_1-C_6 alkyl-aryl group (such as $-\text{CH}_2\text{Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{F-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Cl-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Br-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{I-Ph}$, $-\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$);

- a linear or branched C₁-C₆ halogenated alkyl group (such as -CH₂F, -CH₂Cl, -CH₂Br, -CH₂I, -CF₃, -CCl₃, -CBr₃, -Cl₃, -CH₂CF₃, -CH₂CCl₃, -CH₂CBr₃, and -CH₂Cl₃);
- a linear or branched primary secondary or tertiary C₁-C₆ amine group (such as -NH₂, -NMeH, -NMe₂, -NEtH, -NEtMe, -NEt₂, -NPrH, -NPrMe, -NPrEt, -NPr₂, -NBuH, -NBuMe, -NBuEt, -CH₂-NH₂, -CH₂-NMeH, -CH₂-NMe₂, -CH₂-NEtH, -CH₂-NEtMe, -CH₂-NEt₂, -CH₂-NPrH, -CH₂-NPrMe, and -CH₂-NPrEt);
- a amino-aryl group (such as -NH-Ph, -NH-(2,3 or 4)F-Ph, -NH-(2,3 or 4)Cl-Ph, -NH-(2,3 or 4)Br-Ph, -NH-(2,3 or 4)I-Ph, -NH-(2,3 or 4)Me-Ph, -NH-(2,3 or 4)Et-Ph, -NH-(2,3 or 4)Pr-Ph, -NH-(2,3 or 4)Bu-Ph, -NH-(2,3 or 4)OMe-Ph, -NH-(2,3 or 4)OEt-Ph, -NH-(2,3 or 4)OPr-Ph, -NH-(2,3 or 4)OBu-Ph, -NH-2,(3,4,5 or 6)F₂-Ph, -NH-2,(3,4,5 or 6)Cl₂-Ph, -NH-2,(3,4,5 or 6)Br₂-Ph, -NH-2,(3,4,5 or 6)I₂-Ph, -NH-2,(3,4,5 or 6)Me₂-Ph, -NH-2,(3,4,5 or 6)Et₂-Ph, -NH-2,(3,4,5, or 6)Pr₂-Ph, -NH-2,(3,4,5 or 6)Bu₂-Ph);
- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);
- a cyclic C₃-C₈ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);
- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);
- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);

- a linear or branched carbonyl group (such as $-(\text{CO})\text{Me}$, $-(\text{CO})\text{Et}$, $-(\text{CO})\text{Pr}$, $-(\text{CO})\text{iPr}$, $-(\text{CO})\text{nBu}$, $-(\text{CO})\text{iBu}$, $-(\text{CO})\text{tBu}$, $-(\text{CO})\text{Ph}$, $-(\text{CO})\text{CH}_2\text{Ph}$, $-(\text{CO})\text{CH}_2\text{OH}$, $-(\text{CO})\text{CH}_2\text{OCH}_3$, $-(\text{CO})\text{CH}_2\text{NH}_2$, $-(\text{CO})\text{CH}_2\text{NHMe}$, $-(\text{CO})\text{CH}_2\text{NMe}_2$, $-(\text{CO})\text{-cyclopropyl}$, $-(\text{CO})\text{-1,3-epoxypropan-2-yl}$; $-(\text{CO})\text{NH}_2$, $-(\text{CO})\text{NHMe}$, $-(\text{CO})\text{NMe}_2$, $-(\text{CO})\text{NHEt}$, $-(\text{CO})\text{NEt}_2$, $-(\text{CO})\text{-pyrrolidine-N-yl}$, $-(\text{CO})\text{-morpholine-N-yl}$, $-(\text{CO})\text{-piperazine-N-yl}$, $-(\text{CO})\text{-N-methyl-piperazine-N-yl}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{OH}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{OMe}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NH}_2$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NHMe}$, and $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NMe}_2$;
- a linear or branched $\text{C}_1\text{-C}_6$ carboxylic acid ester group (such as $-\text{COOMe}$, $-\text{COOEt}$, $-\text{COOPr}$, $-\text{COO-i-Pr}$, $-\text{COO-n-Bu}$, $-\text{COO-i-Bu}$, $-\text{COO-t-Bu}$, $-\text{CH}_2\text{COOMe}$, $-\text{CH}_2\text{CH}_2\text{COOMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{COOMe}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOMe}$);
- a linear or branched $\text{C}_1\text{-C}_6$ amide group (such as $-\text{CO-NH}_2$, $-\text{CO-NMeH}$, $-\text{CO-NMe}_2$, $-\text{CO-NEtH}$, $-\text{CO-NEtMe}$, $-\text{CO-NEt}_2$, $-\text{CO-NPrH}$, $-\text{CO-NPrMe}$, and $-\text{CO-NPrEt}$);
- a linear or branched $\text{C}_1\text{-C}_7$ amino carbonyl group (such as $-\text{NH-CO-Me}$, $-\text{NH-CO-Et}$, $-\text{NH-CO-Pr}$, $-\text{NH-CO-Bu}$, $-\text{NH-CO-pentyl}$, $-\text{NH-CO-hexyl}$, $-\text{NH-CO-Ph}$, $-\text{NMe-CO-Me}$, $-\text{NMe-CO-Et}$, $-\text{NMe-CO-Pr}$, $-\text{NMe-CO-Bu}$, $-\text{NMe-CO-pentyl}$, $-\text{NMe-CO-hexyl}$, $-\text{NMe-CO-Ph}$;
- a linear or branched $\text{C}_1\text{-C}_7$ alkoxy or aryloxy group (such as $-\text{OMe}$, $-\text{OEt}$, $-\text{OPr}$, $-\text{O-i-Pr}$, $-\text{O-n-Bu}$, $-\text{O-i-Bu}$, $-\text{O-t-Bu}$, $-\text{O-pentyl}$, $-\text{O-hexyl}$, $-\text{OCH}_2\text{F}$, $-\text{OCHF}_2$, $-\text{OCF}_3$, $-\text{OCH}_2\text{Cl}$, $-\text{OCHCl}_2$, $-\text{OCCl}_3$, $-\text{O-Ph}$, $-\text{O-CH}_2\text{-Ph}$, $-\text{O-CH}_2\text{-(2,3 or 4)-F-Ph}$, $-\text{O-CH}_2\text{-(2,3 or 4)-Cl-Ph}$, $-\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{OEt}$, $-\text{CH}_2\text{OPr}$, $-\text{CH}_2\text{OBu}$, $-\text{CH}_2\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$);
- a linear or branched aminoalkoxy group (such as $-\text{OCH}_2\text{NH}_2$, $-\text{OCH}_2\text{NHMe}$, $-\text{OCH}_2\text{NMe}_2$, $-\text{OCH}_2\text{NHEt}$, $-\text{OCH}_2\text{NEt}_2$, $-\text{OCH}_2\text{CH}_2\text{NH}_2$, $-\text{OCH}_2\text{CH}_2\text{NHMe}$, $-\text{OCH}_2\text{CH}_2\text{NMe}_2$, $-\text{OCH}_2\text{CH}_2\text{NHEt}$, and $-\text{OCH}_2\text{CH}_2\text{NEt}_2$;

- a sulphonyl group (such as $-\text{SO}_2\text{Me}$, $-\text{SO}_2\text{Et}$, $-\text{SO}_2\text{Pr}$, $-\text{SO}_2\text{iPr}$, $-\text{SO}_2\text{Ph}$, $-\text{SO}_2-(2,3 \text{ or } 4)\text{-F-Ph}$, $-\text{SO}_2\text{-cyclopropyl}$, $-\text{SO}_2\text{CH}_2\text{CH}_2\text{OCH}_3$;
- a sulphonylamino group (such as $-\text{SO}_2\text{NH}_2$, $-\text{SO}_2\text{NHMe}$, $-\text{SO}_2\text{NMe}_2$, $-\text{SO}_2\text{NHET}$, $-\text{SO}_2\text{NEt}_2$, $-\text{SO}_2\text{-pyrrolidine-N-yl}$, $-\text{SO}_2\text{-morpholine-N-yl}$, $-\text{SO}_2\text{NHCH}_2\text{OMe}$, and $-\text{SO}_2\text{NHCH}_2\text{CH}_2\text{OMe}$);
- an aminosulphonyl group (such as $-\text{NHSO}_2\text{Me}$, $-\text{NHSO}_2\text{Et}$, $-\text{NHSO}_2\text{Pr}$, $-\text{NHSO}_2\text{iPr}$, $-\text{NHSO}_2\text{Ph}$, $-\text{NHSO}_2-(2,3 \text{ or } 4)\text{-F-Ph}$, $-\text{NHSO}_2\text{-cyclopropyl}$, $-\text{NHSO}_2\text{CH}_2\text{CH}_2\text{OCH}_3$);
- a cyclic aminosulphonyl- group (such as $-\text{N}(\text{SO}_2)(\text{CH}_2)_3$ and $-\text{N}(\text{SO}_2)(\text{CH}_2)_4$);
- an aromatic group (such as Ph- , 2-F-Ph- , 3-F-Ph- , 4-F-Ph- , 2-Cl-Ph- , 3-Cl-Ph- , 4-Cl-Ph- , 2-Br-Ph- , 3-Br-Ph- , 4-Br-Ph- , 2-I-Ph- , 3-I-Ph- , 4-I-Ph- , $2,(3,4,5 \text{ or } 6)\text{-F}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-Cl}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-Br}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-I}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-Me}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-Et}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-Pr}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-Bu}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-(CN)}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-(NO}_2)_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-(NH}_2)_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-(MeO)}_2\text{-Ph-}$, $2,(3,4,5 \text{ or } 6)\text{-(CF}_3)_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-F}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-Cl}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-Br}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-I}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-Me}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-Et}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-Pr}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-Bu}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-(CN)}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-(NO}_2)_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-(NH}_2)_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-(MeO)}_2\text{-Ph-}$, $3,(4 \text{ or } 5)\text{-(CF}_3)_2\text{-Ph-}$, 2-Me-Ph- , 3-Me-Ph- , 4-Me-Ph- , 2-Et-Ph- , 3-Et-Ph- , 4-Et-Ph- , 2-Pr-Ph- , 3-Pr-Ph- , 4-Pr-Ph- , 2-Bu-Ph- , 3-Bu-Ph- , 4-Bu-Ph- , 2-(CN)-Ph- , 3-(CN)-Ph- , 4-(CN)-Ph- , $2\text{-(NO}_2)\text{-Ph-}$, $3\text{-(NO}_2)\text{-Ph-}$, $4\text{-(NO}_2)\text{-Ph-}$, $2\text{-(NH}_2)\text{-Ph-}$, $3\text{-(NH}_2)\text{-Ph-}$, $4\text{-(NH}_2)\text{-Ph-}$, 2-MeO-Ph- , 3-MeO-Ph- , 4-MeO-Ph- , $2\text{-(NH}_2\text{-CO)-Ph-}$, $3\text{-(NH}_2\text{-CO)-Ph-}$, $4\text{-(NH}_2\text{-CO)-Ph-}$, $2\text{-CF}_3\text{-Ph-}$, $3\text{-CF}_3\text{-Ph-}$, $4\text{-CF}_3\text{-Ph-}$, $2\text{-CF}_3\text{O-Ph-}$, $3\text{-CF}_3\text{O-Ph-}$, and $4\text{-CF}_3\text{O-Ph-}$); and
- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl,

(1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

preferably wherein R⁶ comprises - an aromatic group selected from Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-,

particularly preferably wherein R⁶ is selected from the following:

- an unsubstituted, 2-,3- or 4-monosubstituted, and a 2,4 or 3,4-disubstituted phenyl group, preferably wherein the substituent is F, Cl or -OMe (such as 2-F-Ph, 2-Cl-Ph, 2-OMe-Ph, 3-F-Ph, 3-Cl-Ph, 3-OMe-Ph, 4-F-Ph, 4-Cl-Ph, 4-OMe-Ph, 2,4-F₂-Ph, 2,4-Cl₂-Ph, 2,4-(OMe)₂-Ph, 3,4-F₂-Ph, 3,4-Cl₂-Ph, and 3,4-(OMe)₂-Ph);
- a substituted or unsubstituted pyridine-2-yl, pyridine-3-yl or pyridine-4-yl group preferably wherein the substituent is F or Cl (such as pyridine-2-yl, pyridine-3-yl, pyridine-4-yl, 3-F-pyridine-2-yl, 3-Cl-pyridine-2-yl, 4-F-pyridine-2-yl, 4-Cl-pyridine-2-yl, 5-F-pyridine-2-yl, 5-Cl-pyridine-2-yl; and
- a cyclic ether group (such as tetrahydrofuran-2-yl, tetrahydrofuran-3-yl, tetrahydropyran-2-yl, tetrahydropyran-3-yl and tetrahydropyran-4-yl).

13. A compound for use in medicine according to any preceding claim, wherein R^7 is H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);
- a linear or branched C_1 - C_6 alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl).
- a linear or branched C_1 - C_6 alkyl-aryl group (such as $-\text{CH}_2\text{Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{F-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Cl-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Br-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{I-Ph}$, $-\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$);
- a linear or branched C_1 - C_6 halogenated alkyl group (such as $-\text{CH}_2\text{F}$, $-\text{CH}_2\text{Cl}$, $-\text{CH}_2\text{Br}$, $-\text{CH}_2\text{I}$, $-\text{CF}_3$, $-\text{CCl}_3$, $-\text{CBr}_3$, $-\text{Cl}_3$, $-\text{CH}_2\text{CF}_3$, $-\text{CH}_2\text{CCl}_3$, $-\text{CH}_2\text{CBr}_3$, and $-\text{CH}_2\text{Cl}_3$);
- a linear or branched primary secondary or tertiary C_1 - C_6 amine group (such as $-\text{NH}_2$, $-\text{NMeH}$, $-\text{NMe}_2$, $-\text{NEtH}$, $-\text{NEtMe}$, $-\text{NEt}_2$, $-\text{NPrH}$, $-\text{NPrMe}$, $-\text{NPrEt}$, $-\text{NPr}_2$, $-\text{NBuH}$, $-\text{NBuMe}$, $-\text{NBuEt}$, $-\text{CH}_2\text{-NH}_2$, $-\text{CH}_2\text{-NMeH}$, $-\text{CH}_2\text{-NMe}_2$, $-\text{CH}_2\text{-NEtH}$, $-\text{CH}_2\text{-NEtMe}$, $-\text{CH}_2\text{-NEt}_2$, $-\text{CH}_2\text{-NPrH}$, $-\text{CH}_2\text{-NPrMe}$, and $-\text{CH}_2\text{-NPrEt}$);
- a amino-aryl group (such as $-\text{NH-Ph}$, $-\text{NH-(2,3 or 4)F-Ph}$, $-\text{NH-(2,3 or 4)Cl-Ph}$, $-\text{NH-(2,3 or 4)Br-Ph}$, $-\text{NH-(2,3 or 4)I-Ph}$, $-\text{NH-(2,3 or 4)Me-Ph}$, $-\text{NH-(2,3 or 4)Et-Ph}$, $-\text{NH-(2,3 or 4)Pr-Ph}$, $-\text{NH-(2,3 or 4)Bu-Ph}$, $-\text{NH-(2,3 or 4)OMe-Ph}$, $-\text{NH-(2,3 or 4)OEt-Ph}$, $-\text{NH-(2,3 or 4)OPr-Ph}$, $-\text{NH-(2,3 or 4)OBu-Ph}$, $-\text{NH-2,(3,4,5 or 6)F}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Cl}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Br}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)I}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Me}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Et}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Pr}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Bu}_2\text{-Ph}$);
- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);

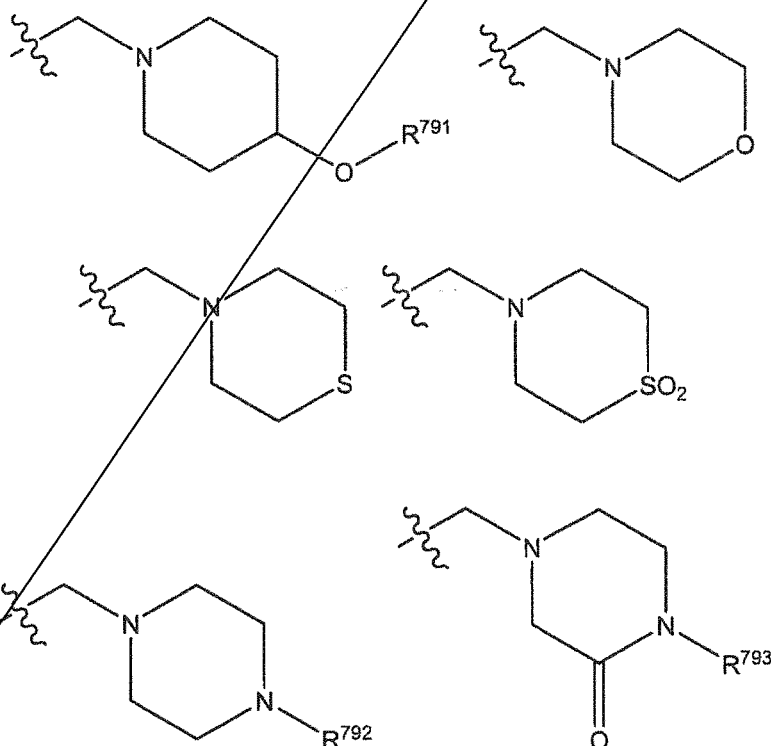
- a cyclic C₃-C₈ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);
- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);
- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);
- a linear or branched carbonyl group (such as -(CO)Me, -(CO)Et, -(CO)Pr, -(CO)iPr, -(CO)nBu, -(CO)iBu, -(CO)tBu, -(CO)Ph, -(CO)CH₂Ph, -(CO)CH₂OH, -(CO)CH₂OCH₃, -(CO)CH₂NH₂, -(CO)CH₂NHMe, -(CO)CH₂NMe₂, -(CO)-cyclopropyl, -(CO)-1,3-epoxypropan-2-yl, -(CO)NH₂, -(CO)NHMe, -(CO)NMe₂, -(CO)NH₂Et, -(CO)NEt₂, -(CO)-pyrrolidine-N-yl, -(CO)-morpholine-N-yl, -(CO)-piperazine-N-yl, -(CO)-N-methyl-piperazine-N-yl, -(CO)NHCH₂CH₂OH, -(CO)NHCH₂CH₂OMe, -(CO)NHCH₂CH₂NH₂, -(CO)NHCH₂CH₂NHMe, and -(CO)NHCH₂CH₂NMe₂);
- a linear or branched C₁-C₆ carboxylic acid ester group (such as -COOMe, -COOEt, -COOPr, -COO-i-Pr, -COO-n-Bu, -COO-i-Bu, -COO-t-Bu, -CH₂COOMe, -CH₂CH₂COOMe, -CH₂CH₂CH₂COOMe, and -CH₂CH₂CH₂CH₂COOMe);
- a linear or branched C₁-C₆ amide group (such as -CO-NH₂, -CO-NMeH, -CO-NMe₂, -CO-NEtH, -CO-NEtMe, -CO-NEt₂, -CO-NPrH, -CO-NPrMe, and -CO-NPrEt);
- a linear or branched C₁-C₇ amino carbonyl group (such as -NH-CO-Me, -NH-CO-Et, -NH-CO-Pr, -NH-CO-Bu, -NH-CO-pentyl, -NH-CO-hexyl, -NH-CO-Ph, -NMe-CO-Me, -NMe-CO-Et, -NMe-CO-Pr, -NMe-CO-Bu, -NMe-CO-pentyl, -NMe-CO-hexyl, -NMe-CO-Ph);

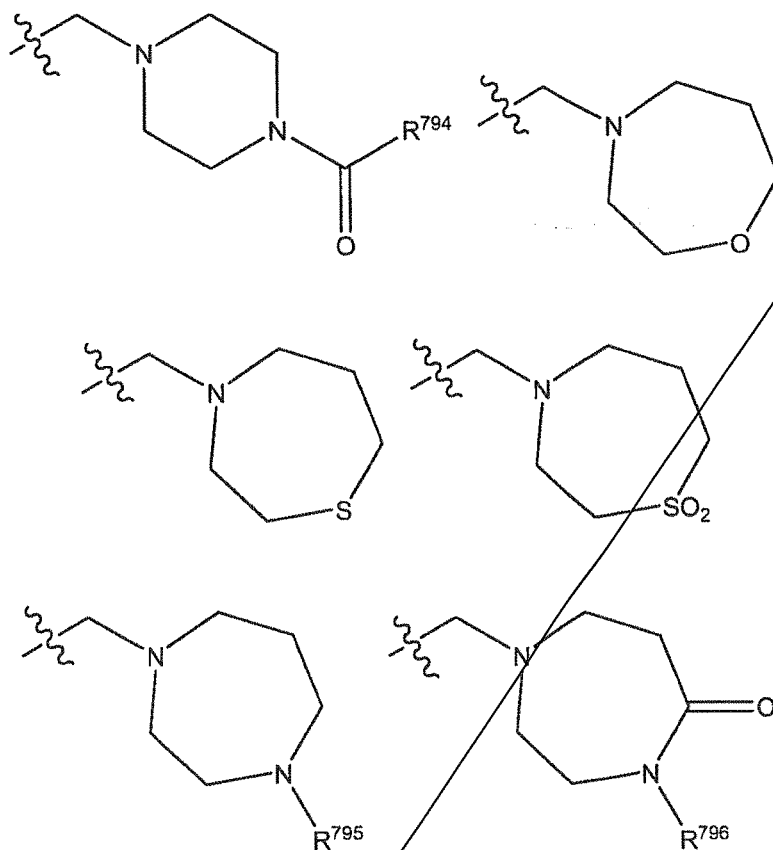
- a linear or branched C₁-C₇ alkoxy or aryloxy group (such as -OMe, -OEt, -OPr, -O-i-Pr, -O-n-Bu, -O-i-Bu, -O-t-Bu, -O-pentyl, -O-hexyl, -OCH₂F, -OCHF₂, -OCF₃, -OCH₂Cl, -OCHCl₂, -OCCl₃, -O-Ph, -O-CH₂-Ph, -O-CH₂-(2,3 or 4)-F-Ph, -O-CH₂-(2,3 or 4)-Cl-Ph, -CH₂OMe, -CH₂OEt, -CH₂OPr, -CH₂OBu, -CH₂CH₂OMe, -CH₂CH₂CH₂OMe, -CH₂CH₂CH₂CH₂OMe, and -CH₂CH₂CH₂CH₂CH₂OMe);
- a linear or branched aminoalkoxy group (such as -OCH₂NH₂, -OCH₂NHMe, -OCH₂NMe₂, -OCH₂NHEt, -OCH₂NEt₂, -OCH₂CH₂NH₂, -OCH₂CH₂NHMe, -OCH₂CH₂NMe₂, -OCH₂CH₂NHEt, and -OCH₂CH₂NEt₂);
- a sulphonyl group (such as -SO₂Me, -SO₂Et, -SO₂Pr, -SO₂iPr, -SO₂Ph, -SO₂-(2,3 or 4)-F-Ph, -SO₂-cyclopropyl, -SO₂CH₂CH₂OCH₃);
- a sulphonylamino group (such as -SO₂NH₂, -SO₂NHMe, -SO₂NMe₂, -SO₂NHEt, -SO₂NEt₂, -SO₂-pyrrolidine-N-yl, -SO₂-morpholine-N-yl, -SO₂NHCH₂OMe, and -SO₂NHCH₂CH₂OMe);
- an aminosulphonyl group (such as -NHSO₂Me, -NHSO₂Et, -NHSO₂Pr, -NHSO₂iPr, -NHSO₂Ph, -NHSO₂-(2,3 or 4)-F-Ph, -NHSO₂-cyclopropyl, -NHSO₂CH₂CH₂OCH₃);
- a cyclic aminosulphonyl- group (such as -N(SO₂)(CH₂)₃ and -N(SO₂)(CH₂)₄);
- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-

Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and

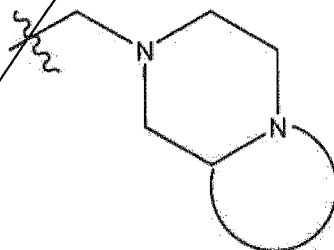
- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

preferably wherein R⁷ is selected from:

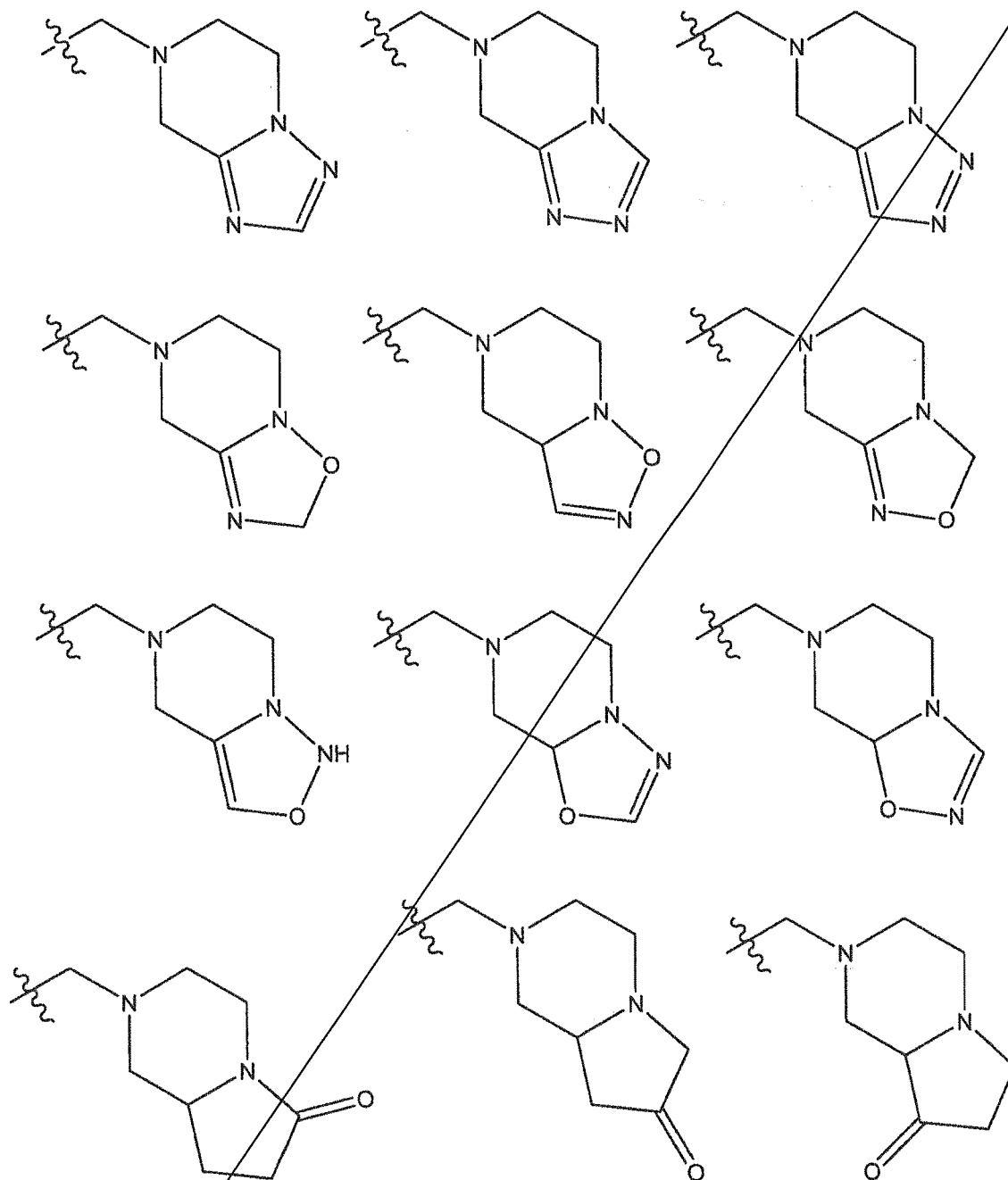




and also from a group having the following structure:



where the ring fused to the piperazine ring is a 5- or 6-membered ring optionally having 1 or more further heteroatoms in the ring selected from N and O and optionally having one or more substituents, preferably wherein this group is selected from the following:



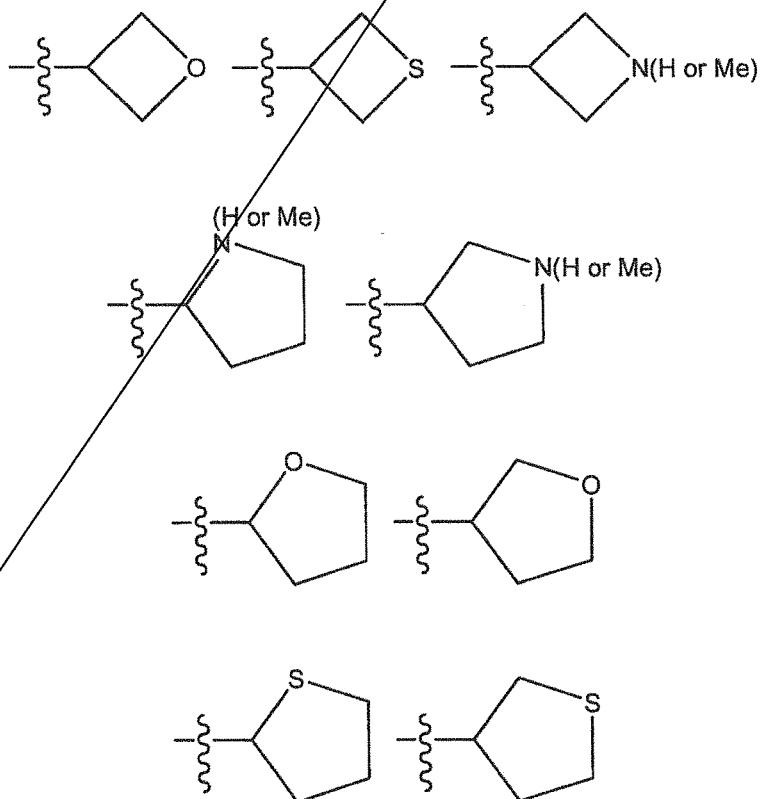
wherein R^{791} , R^{792} , R^{793} , R^{794} , R^{795} , and R^{796} are selected from the following:

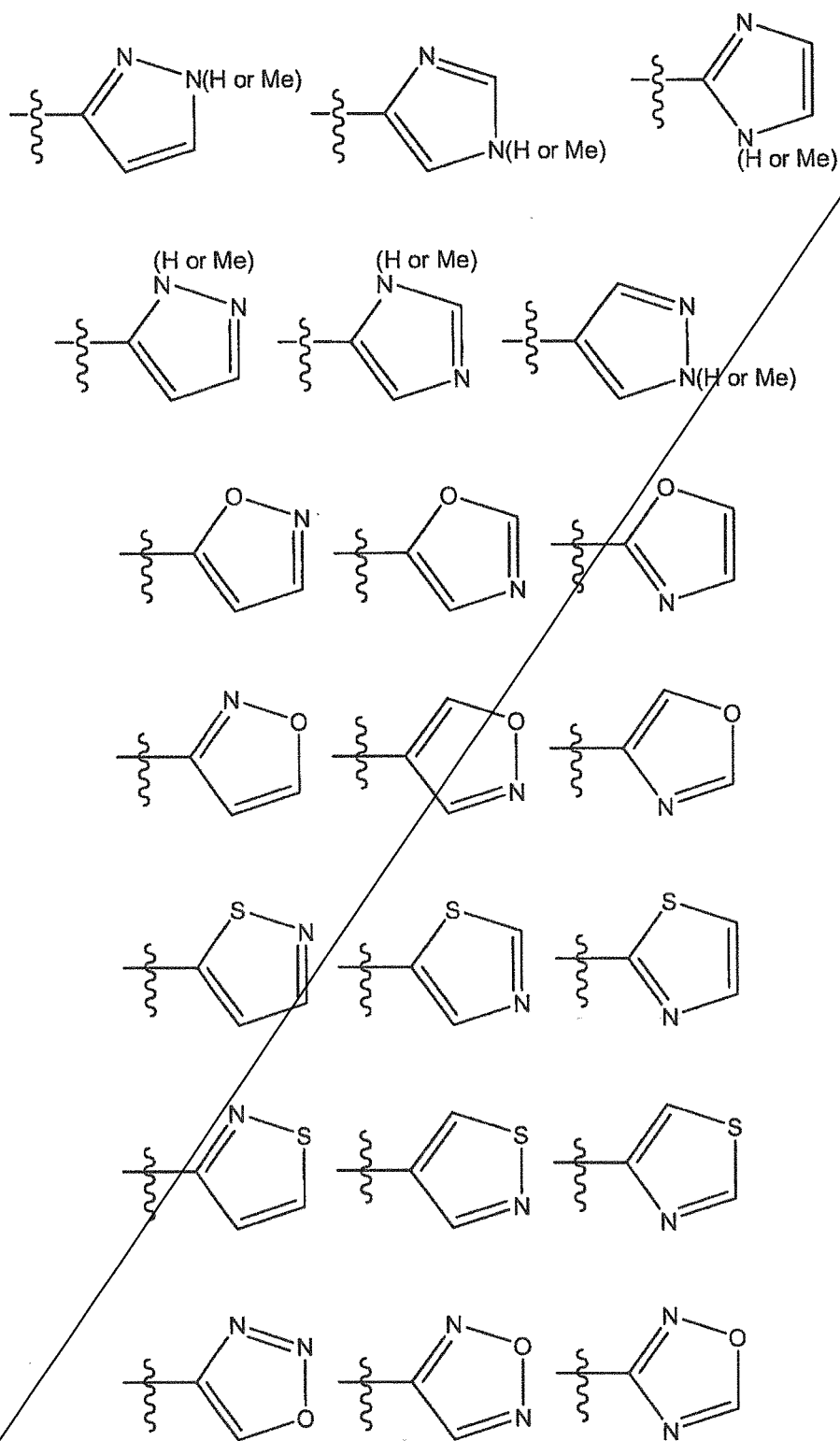
- R^{791} is selected from H, Me, Et, Pr, iPr, cyPr, and cyBu, preferably H;

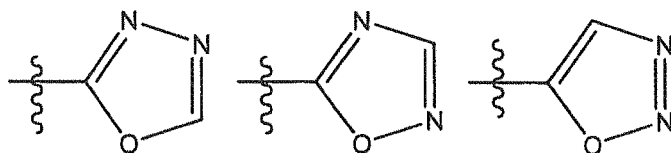
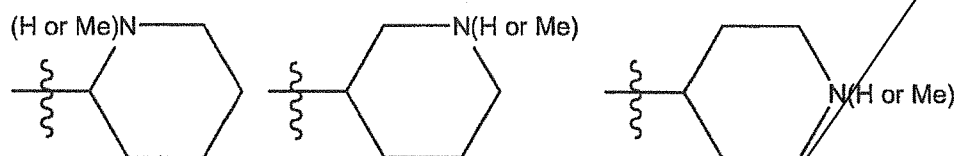
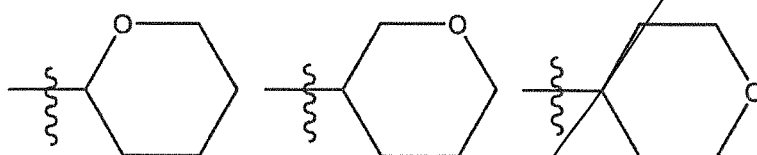
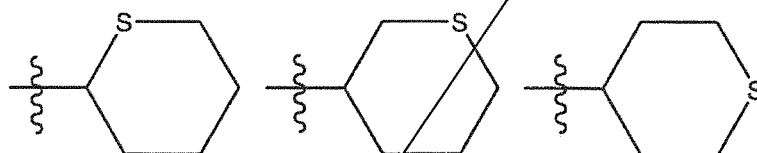
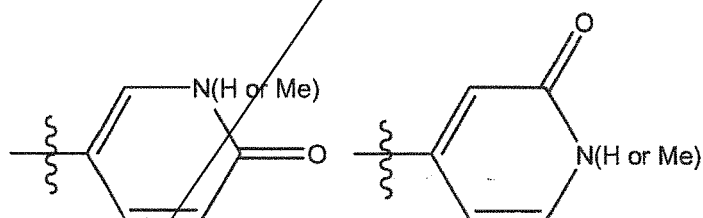
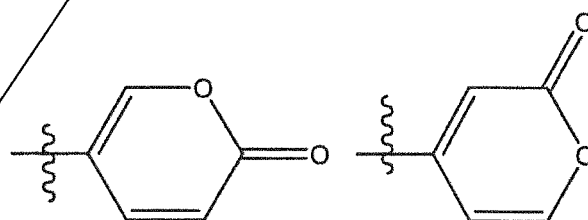
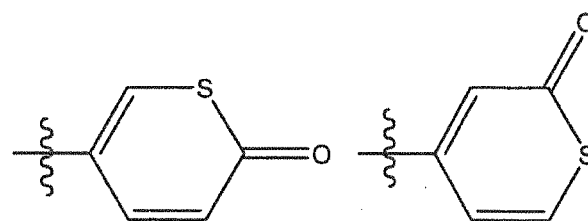
- R^{792} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)-Et$, $-(CO)-Pr$, $-(CO)-iPr$, $-SO_2Me$, and SO_2Et , preferably H, Me, $-SO_2Me$ and $-(CO)-Me$;

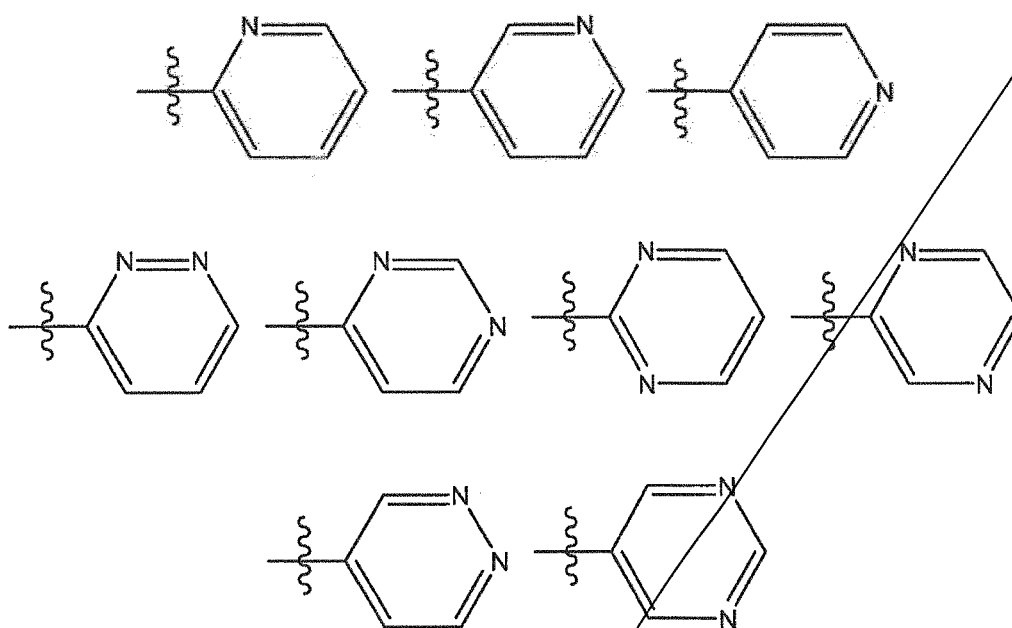
- R^{793} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)Et$, $-(CO)Pr$, and $-(CO)iPr$, preferably H, Me and $-(CO)-Me$;

- R^{794} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu; an unsubstituted, 2-,3- or 4-monosubstituted, and a 2,4 or 3,4-disubstituted phenyl group, preferably wherein the substituent is F, Cl CN, or $-OMe$ (such as 2-F-Ph, 2-Cl-Ph, 2-CN-Ph, 2-OMe-Ph, 3-F-Ph, 3-Cl-Ph, 3-CN-Ph, 3-OMe-Ph, 4-F-Ph, 4-Cl-Ph, 4-CN-Ph, 4-OMe-Ph, 2,4-F₂-Ph, 2,4-Cl₂-Ph, 2,4-(CN)₂-Ph, 2,4-(OMe)₂-Ph, 3,4-F₂-Ph, 3,4-Cl₂-Ph, 3,4-(CN)₂-Ph, and 3,4-(OMe)₂-Ph); $-NH_2$, $-NHMe$, and $-NMe_2$; $-OH$, $-OMe$, $-OEt$, $-OPr$, $-OiPr$, $-O^nBu$, and $-O^tBu$; $-CH_2OH$, $-CHMeOH$, $-C(Me)_2OH$, $-CH_2OMe$, $-CHMeOMe$, $-C(Me)_2OMe$, $-CH_2OEt$, $-CHMeOEt$, and $-C(Me)_2OEt$; and a heterocyclic ring group having from 4-7 ring atoms with at least one heteroatom selected from N, O, and S, which ring group may be saturated or unsaturated and may be substituted or unsubstituted, preferably wherein the heterocyclic ring group is selected from the following groups:









- R^{795} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)-Et$, $-(CO)-Pr$, $-(CO)iPr$, $-SO_2Me$, and SO_2Et , preferably H, Me, $-SO_2Me$ and $-(CO)-Me$;

- R^{796} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)Et$, $-(CO)Pr$, and $-(CO)iPr$, preferably H, Me and $-(CO)-Me$;

14. A compound for use in medicine according to any preceding claim, wherein R^1 , R^2 , R^4 , R^5 , and R^8 are each independently H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);

- a linear or branched C_1-C_6 alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl);

- a linear or branched C_1-C_6 alkyl-aryl group (such as $-CH_2Ph$, $-CH_2(2,3 \text{ or } 4)F-Ph$, $-CH_2(2,3 \text{ or } 4)Cl-Ph$, $-CH_2(2,3 \text{ or } 4)Br-Ph$, $-CH_2(2,3 \text{ or } 4)I-Ph$, $-CH_2CH_2Ph$, $-CH_2CH_2CH_2Ph$, $-CH_2CH_2CH_2CH_2Ph$, and $-CH_2CH_2CH_2CH_2CH_2Ph$);

- a linear or branched C₁-C₆ halogenated alkyl group (such as -CH₂F, -CH₂Cl, -CH₂Br, -CH₂I, -CF₃, -CCl₃, -CBr₃, -Cl₃, -CH₂CF₃, -CH₂CCl₃, -CH₂CBr₃, and -CH₂Cl₃);
- a linear or branched primary secondary or tertiary C₁-C₆ amine group (such as -NH₂, -NMeH, -NMe₂, -NEtH, -NEtMe, -NEt₂, -NPrH, -NPrMe, -NPrEt, -NPr₂, -NBuH, -NBuMe, -NBuEt, -CH₂-NH₂, -CH₂-NMeH, -CH₂-NMe₂, -CH₂-NEtH, -CH₂-NEtMe, -CH₂-NEt₂, -CH₂-NPrH, -CH₂-NPrMe, and -CH₂-NPrEt);
- a amino-aryl group (such as -NH-Ph, -NH-(2,3 or 4)F-Ph, -NH-(2,3 or 4)Cl-Ph, -NH-(2,3 or 4)Br-Ph, -NH-(2,3 or 4)I-Ph, -NH-(2,3 or 4)Me-Ph, -NH-(2,3 or 4)Et-Ph, -NH-(2,3 or 4)Pr-Ph, -NH-(2,3 or 4)Bu-Ph, -NH-(2,3 or 4)OMe-Ph, -NH-(2,3 or 4)OEt-Ph, -NH-(2,3 or 4)OPr-Ph, -NH-(2,3 or 4)OBu-Ph, -NH-2,(3,4,5 or 6)F₂-Ph, -NH-2,(3,4,5 or 6)Cl₂-Ph, -NH-2,(3,4,5 or 6)Br₂-Ph, -NH-2,(3,4,5 or 6)I₂-Ph, -NH-2,(3,4,5 or 6)Me₂-Ph, -NH-2,(3,4,5 or 6)Et₂-Ph, -NH-2,(3,4,5 or 6)Pr₂-Ph, -NH-2,(3,4,5 or 6)Bu₂-Ph,
- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);
- a cyclic C₃-C₈ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);
- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);
- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);

- a linear or branched carbonyl group (such as $-(\text{CO})\text{Me}$, $-(\text{CO})\text{Et}$, $-(\text{CO})\text{Pr}$, $-(\text{CO})\text{iPr}$, $-(\text{CO})\text{nBu}$, $-(\text{CO})\text{Bu}$, $-(\text{CO})\text{tBu}$, $-(\text{CO})\text{Ph}$, $-(\text{CO})\text{CH}_2\text{Ph}$, $-(\text{CO})\text{CH}_2\text{OH}$, $-(\text{CO})\text{CH}_2\text{OCH}_3$, $-(\text{CO})\text{CH}_2\text{NH}_2$, $-(\text{CO})\text{CH}_2\text{NHMe}$, $-(\text{CO})\text{CH}_2\text{NMe}_2$, $-(\text{CO})\text{-cyclopropyl}$, $-(\text{CO})\text{-1,3-epoxypropan-2-yl}$; $-(\text{CO})\text{NH}_2$, $-(\text{CO})\text{NHMe}$, $-(\text{CO})\text{NMe}_2$, $-(\text{CO})\text{NHet}$, $-(\text{CO})\text{NEt}_2$, $-(\text{CO})\text{-pyrrolidine-N-yl}$, $-(\text{CO})\text{-morpholine-N-yl}$, $-(\text{CO})\text{-piperazine-N-yl}$, $-(\text{CO})\text{-N-methyl-piperazine-N-yl}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{OH}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{OMe}$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NH}_2$, $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NHMe}$, and $-(\text{CO})\text{NHCH}_2\text{CH}_2\text{NMe}_2$;
- a linear or branched $\text{C}_1\text{-C}_6$ carboxylic acid ester group (such as $-\text{COOMe}$, $-\text{COOEt}$, $-\text{COOPr}$, $-\text{COO-i-Pr}$, $-\text{COO-n-Bu}$, $-\text{COO-i-Bu}$, $-\text{COO-t-Bu}$, $-\text{CH}_2\text{COOMe}$, $-\text{CH}_2\text{CH}_2\text{COOMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{COOMe}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{COOMe}$);
- a linear or branched $\text{C}_1\text{-C}_6$ amide group (such as $-\text{CO-NH}_2$, $-\text{CO-NMeH}$, $-\text{CO-NMe}_2$, $-\text{CO-NEtH}$, $-\text{CO-NEtMe}$, $-\text{CO-NEt}_2$, $-\text{CO-NPrH}$, $-\text{CO-NPrMe}$, and $-\text{CO-NPrEt}$);
- a linear or branched $\text{C}_1\text{-C}_7$ amino carbonyl group (such as $-\text{NH-CO-Me}$, $-\text{NH-CO-Et}$, $-\text{NH-CO-Pr}$, $-\text{NH-CO-Bu}$, $-\text{NH-CO-pentyl}$, $-\text{NH-CO-hexyl}$, $-\text{NH-CO-Ph}$, $-\text{NMe-CO-Me}$, $-\text{NMe-CO-Et}$, $-\text{NMe-CO-Pr}$, $-\text{NMe-CO-Bu}$, $-\text{NMe-CO-pentyl}$, $-\text{NMe-CO-hexyl}$, $-\text{NMe-CO-Ph}$;
- a linear or branched $\text{C}_1\text{-C}_7$ alkoxy or aryloxy group (such as $-\text{OMe}$, $-\text{OEt}$, $-\text{OPr}$, $-\text{O-i-Pr}$, $-\text{O-n-Bu}$, $-\text{O-i-Bu}$, $-\text{O-t-Bu}$, $-\text{O-pentyl}$, $-\text{O-hexyl}$, $-\text{OCH}_2\text{F}$, $-\text{OCHF}_2$, $-\text{OCF}_3$, $-\text{OCH}_2\text{Cl}$, $-\text{OCHCl}_2$, $-\text{OCCl}_3$, $-\text{O-Ph}$, $-\text{O-CH}_2\text{-Ph}$, $-\text{O-CH}_2\text{-(2,3 or 4)-F-Ph}$, $-\text{O-CH}_2\text{-(2,3 or 4)-Cl-Ph}$, $-\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{OEt}$, $-\text{CH}_2\text{OPr}$, $-\text{CH}_2\text{OBu}$, $-\text{CH}_2\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OMe}$);
- a linear or branched aminoalkoxy group (such as $-\text{OCH}_2\text{NH}_2$, $-\text{OCH}_2\text{NHMe}$, $-\text{OCH}_2\text{NMe}_2$, $-\text{OCH}_2\text{NHet}$, $-\text{OCH}_2\text{NEt}_2$, $-\text{OCH}_2\text{CH}_2\text{NH}_2$, $-\text{OCH}_2\text{CH}_2\text{NHMe}$, $-\text{OCH}_2\text{CH}_2\text{NMe}_2$, $-\text{OCH}_2\text{CH}_2\text{NHet}$, and $-\text{OCH}_2\text{CH}_2\text{NEt}_2$;
- a sulphonyl group (such as $-\text{SO}_2\text{Me}$, $-\text{SO}_2\text{Et}$, $-\text{SO}_2\text{Pr}$, $-\text{SO}_2\text{iPr}$, $-\text{SO}_2\text{Ph}$, $-\text{SO}_2\text{-(2,3 or 4)-F-Ph}$, $-\text{SO}_2\text{-cyclopropyl}$, $-\text{SO}_2\text{CH}_2\text{CH}_2\text{OCH}_3$;

- a sulphonylamino group (such as $-\text{SO}_2\text{NH}_2$, $-\text{SO}_2\text{NHMe}$, $-\text{SO}_2\text{NMe}_2$, $-\text{SO}_2\text{NHEt}$, $-\text{SO}_2\text{NEt}_2$, $-\text{SO}_2$ -pyrrolidine-N-yl, $-\text{SO}_2$ -morpholine-N-yl, $-\text{SO}_2\text{NHCH}_2\text{OMe}$, and $-\text{SO}_2\text{NHCH}_2\text{CH}_2\text{OMe}$);
- an aminosulphonyl group (such as $-\text{NHSO}_2\text{Me}$, $-\text{NHSO}_2\text{Et}$, $-\text{NHSO}_2\text{Pr}$, $-\text{NHSO}_2\text{iPr}$, $-\text{NHSO}_2\text{Ph}$, $-\text{NHSO}_2$ -(2,3 or 4)-F-Ph, $-\text{NHSO}_2$ -cyclopropyl, $-\text{NHSO}_2\text{CH}_2\text{CH}_2\text{OCH}_3$);
- a cyclic aminosulphonyl- group (such as $-\text{N}(\text{SO}_2)(\text{CH}_2)_3$ and $-\text{N}(\text{SO}_2)(\text{CH}_2)_4$);
- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and
- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl).

15. A compound for use in medicine according to any preceding claim, wherein each of R^{71} , R^{72} , R^{73} , R^{74} , R^{75} and R^{76} is independently H or a group selected from the following groups:

- a halogen (such as F, Cl, Br and I);
- a linear or branched C_1 - C_6 alkyl group (such as methyl (Me), ethyl (Et), propyl (Pr), isopropyl (i-Pr), n-butyl (n-Bu), iso-butyl (i-Bu), tert-butyl (t-Bu), pentyl and hexyl);
- a linear or branched C_1 - C_6 alkyl-aryl group (such as $-\text{CH}_2\text{Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{F-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Cl-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{Br-Ph}$, $-\text{CH}_2(2,3 \text{ or } 4)\text{I-Ph}$, $-\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$, and $-\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Ph}$);
- a linear or branched C_1 - C_6 halogenated alkyl group (such as $-\text{CH}_2\text{F}$, $-\text{CH}_2\text{Cl}$, $-\text{CH}_2\text{Br}$, $-\text{CH}_2\text{I}$, $-\text{CF}_3$, $-\text{CCl}_3$, $-\text{CBr}_3$, $-\text{Cl}_3$, $-\text{CH}_2\text{CF}_3$, $-\text{CH}_2\text{CCl}_3$, $-\text{CH}_2\text{CBr}_3$, and $-\text{CH}_2\text{Cl}_3$);
- a linear or branched primary secondary or tertiary C_1 - C_6 amine group (such as $-\text{NH}_2$, $-\text{NMeH}$, $-\text{NMe}_2$, $-\text{NEtH}$, $-\text{NEtMe}$, $-\text{NEt}_2$, $-\text{NPrH}$, $-\text{NPrMe}$, $-\text{NPrEt}$, $-\text{NPr}_2$, $-\text{NBuH}$, $-\text{NBuMe}$, $-\text{NBuEt}$, $-\text{CH}_2\text{-NH}_2$, $-\text{CH}_2\text{-NMeH}$, $-\text{CH}_2\text{-NMe}_2$, $-\text{CH}_2\text{-NEtH}$, $-\text{CH}_2\text{-NEtMe}$, $-\text{CH}_2\text{-NEt}_2$, $-\text{CH}_2\text{-NPrH}$, $-\text{CH}_2\text{-NPrMe}$, and $-\text{CH}_2\text{-NPrEt}$);
- a amino-aryl group (such as $-\text{NH-Ph}$, $-\text{NH-(2,3 or 4)F-Ph}$, $-\text{NH-(2,3 or 4)Cl-Ph}$, $-\text{NH-(2,3 or 4)Br-Ph}$, $-\text{NH-(2,3 or 4)I-Ph}$, $-\text{NH-(2,3 or 4)Me-Ph}$, $-\text{NH-(2,3 or 4)Et-Ph}$, $-\text{NH-(2,3 or 4)Pr-Ph}$, $-\text{NH-(2,3 or 4)Bu-Ph}$, $-\text{NH-(2,3 or 4)OMe-Ph}$, $-\text{NH-(2,3 or 4)OEt-Ph}$, $-\text{NH-(2,3 or 4)OPr-Ph}$, $-\text{NH-(2,3 or 4)OBu-Ph}$, $-\text{NH-2,(3,4,5 or 6)F}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Cl}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Br}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)I}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Me}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Et}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Pr}_2\text{-Ph}$, $-\text{NH-2,(3,4,5 or 6)Bu}_2\text{-Ph}$);
- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl,

morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);

- a cyclic C₃-C₈ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);

- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);

- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);

- a linear or branched carbonyl group (such as -(CO)Me, -(CO)Et, -(CO)Pr, -(CO)iPr, -(CO)nBu, -(CO)iBu, -(CO)tBu, -(CO)Ph, -(CO)CH₂Ph, -(CO)CH₂OH, -(CO)CH₂OCH₃, -(CO)CH₂NH₂, -(CO)CH₂NHMe, -(CO)CH₂NMe₂, -(CO)-cyclopropyl, -(CO)-1,3-epoxypropan-2-yl, -(CO)NH₂, -(CO)NHMe, -(CO)NMe₂, -(CO)NHEt, -(CO)NEt₂, -(CO)-pyrrolidine-N-yl, -(CO)-morpholine-N-yl, -(CO)-piperazine-N-yl, -(CO)-N-methyl-piperazine-N-yl, -(CO)NHCH₂CH₂OH, -(CO)NHCH₂CH₂OMe, -(CO)NHCH₂CH₂NH₂, -(CO)NHCH₂CH₂NHMe, and -(CO)NHCH₂CH₂NMe₂;

- a linear or branched C₁-C₆ carboxylic acid ester group (such as -COOMe, -COOEt, -COOPr, -COO-i-Pr, -COO-n-Bu, -COO-i-Bu, -COO-t-Bu, -CH₂COOMe, -CH₂CH₂COOMe, -CH₂CH₂CH₂COOMe, and -CH₂CH₂CH₂CH₂COOMe);

- a linear or branched C₁-C₆ amide group (such as -CO-NH₂, -CO-NMeH, -CO-NMe₂, -CO-NEtH, -CO-NEtMe, -CO-NEt₂, -CO-NPrH, -CO-NPrMe, and -CO-NPrEt);

- a linear or branched C₁-C₇ amino carbonyl group (such as -NH-CO-Me, -NH-CO-Et, -NH-CO-Pr, -NH-CO-Bu, -NH-CO-pentyl, -NH-CO-hexyl, -NH-CO-Ph, -NMe-CO-Me, -NMe-CO-Et, -NMe-CO-Pr, -NMe-CO-Bu, -NMe-CO-pentyl, -NMe-CO-hexyl, -NMe-CO-Ph);
- a linear or branched C₁-C₇ alkoxy or aryloxy group (such as -OMe, -OEt, -OPr, -O-i-Pr, -O-n-Bu, -O-i-Bu, -O-t-Bu, -O-pentyl, -O-hexyl, -OCH₂F, -OCHF₂, -OCF₃, -OCH₂Cl, -OCHCl₂, -OCCl₃, -O-Ph, -O-CH₂-Ph, -O-CH₂-(2,3 or 4)-F-Ph, -O-CH₂-(2,3 or 4)-Cl-Ph, -CH₂OMe, -CH₂OEt, -CH₂OPr, -CH₂OBu, -CH₂CH₂OMe, -CH₂CH₂CH₂OMe, -CH₂CH₂CH₂CH₂OMe, and -CH₂CH₂CH₂CH₂CH₂OMe);
- a linear or branched aminoalkoxy group (such as -OCH₂NH₂, -OCH₂NHMe, -OCH₂NMe₂, -OCH₂NHEt, -OCH₂NEt₂, -OCH₂CH₂NH₂, -OCH₂CH₂NHMe, -OCH₂CH₂NMe₂, -OCH₂CH₂NHEt, and -OCH₂CH₂NEt₂);
- a sulphonyl group (such as -SO₂Me, -SO₂Et, -SO₂Pr, -SO₂iPr, -SO₂Ph, -SO₂-(2,3 or 4)-F-Ph, -SO₂-cyclopropyl, -SO₂CH₂CH₂OCH₃);
- a sulphonylamino group (such as -SO₂NH₂, -SO₂NHMe, -SO₂NMe₂, -SO₂NHEt, -SO₂NEt₂, -SO₂-pyrrolidine-N-yl, -SO₂-morpholine-N-yl, -SO₂NHCH₂OMe, and -SO₂NHCH₂CH₂OMe);
- an aminosulphonyl group (such as -NHSO₂Me, -NHSO₂Et, -NHSO₂Pr, -NHSO₂iPr, -NHSO₂Ph, -NHSO₂-(2,3 or 4)-F-Ph, -NHSO₂-cyclopropyl, -NHSO₂CH₂CH₂OCH₃);
- a cyclic aminosulphonyl- group (such as -N(SO₂)(CH₂)₃ and -N(SO₂)(CH₂)₄);
- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-,

3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and

- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

preferably wherein R⁷⁵ is a substituted or unsubstituted group selected from a linear or branched alkyl group, a cycloalkyl group, a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group, and an aryl group; chosen from the following:

- a linear or branched C₁-C₆ alkyl group (such as Me, Et, Pr, i-Pr, n-Bu, i-Bu, t-Bu, pentyl and hexyl);

- a linear or branched C₁-C₆ alkyl-aryl group (such as -CH₂Ph, -CH₂(2,3 or 4)F-Ph, -CH₂(2,3 or 4)Cl-Ph, -CH₂(2,3 or 4)Br-Ph, -CH₂(2,3 or 4)I-Ph, -CH₂CH₂Ph, -CH₂CH₂CH₂Ph, -CH₂CH₂CH₂CH₂Ph, -CH₂CH₂CH₂CH₂CH₂Ph, and -CH₂CH₂CH₂CH₂CH₂CH₂Ph);

- a linear or branched C₁-C₆ halogenated alkyl group (such as -CH₂F, -CH₂Cl, -CH₂Br, -CH₂I, -CF₃, -CCl₃, -CBr₃, and -CI₃);

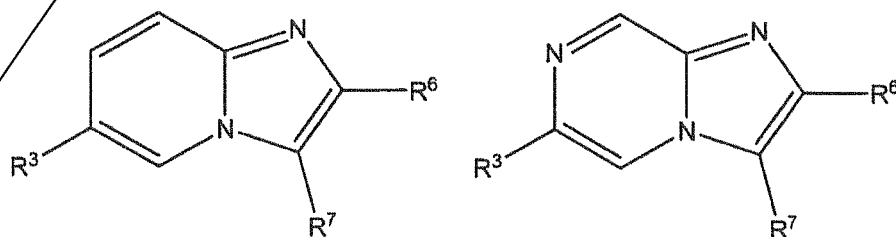
- a linear or branched primary secondary or tertiary C₁-C₆ alkylamine group (such as -CH₂-NH₂, -CH₂-NMeH, -CH₂-NMe₂, -CH₂-NEtH, -CH₂-NEtMe, -CH₂-NEt₂, -CH₂-NPrH, -CH₂-NPrMe, and -CH₂-NPrEt);
- a cyclic amine or amido group (such as pyrrolidin-1-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-1-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-1-yl, morpholin-2-yl, morpholin-3-yl, morpholin-4-yl, 2-keto-pyrrolidinyl, 3-keto-pyrrolidinyl, 2-keto-piperidinyl, 3-keto-piperidinyl, and 4-keto-piperidinyl);
- a cyclic C₃-C₈ alkyl group (such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl);
- a linear or branched C₁-C₆ alcohol group (such as -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂OH, -CH₂CH₂CH₂CH₂CH₂OH, and -CH₂CH₂CH₂CH₂CH₂CH₂OH);
- a linear or branched C₁-C₆ carboxylic acid group (such as -COOH, -CH₂COOH, -CH₂CH₂COOH, -CH₂CH₂CH₂COOH, -CH₂CH₂CH₂CH₂COOH, and -CH₂CH₂CH₂CH₂CH₂COOH);
- a linear or branched C₁-C₆ carboxylic acid ester group (such as -COOMe, -COOEt, -COOPr, -COO-i-Pr, -COO-n-Bu, -COO-i-Bu, -COO-t-Bu, -CH₂COOMe, -CH₂CH₂COOMe, -CH₂CH₂CH₂COOMe, and -CH₂CH₂CH₂CH₂COOMe);
- a linear or branched C₁-C₆ amide group (such as -CO-NH₂, -CO-NMeH, -CO-NMe₂, -CO-NEtH, -CO-NEtMe, -CO-NEt₂, -CO-NPrH, -CO-NPrMe, and -CO-NPrEt);
- a linear or branched C₁-C₇ alkoxyalkyl or aryloxyalkyl group (such as -CH₂OMe, -CH₂OEt, -CH₂OPr, -CH₂OBu, -CH₂CH₂OMe, -CH₂CH₂CH₂OMe, -CH₂CH₂CH₂CH₂OMe, and -CH₂CH₂CH₂CH₂CH₂OMe);
- an aromatic group (such as Ph-, 2-F-Ph-, 3-F-Ph-, 4-F-Ph-, 2-Cl-Ph-, 3-Cl-Ph-, 4-Cl-Ph-, 2-Br-Ph-, 3-Br-Ph-, 4-Br-Ph-, 2-I-Ph-, 3-I-Ph-, 4-I-Ph-, 2,(3,4,5 or 6)-F₂-Ph-, 2,(3,4,5 or 6)-Cl₂-

Ph-, 2,(3,4,5 or 6)-Br₂-Ph-, 2,(3,4,5 or 6)-I₂-Ph-, 2,(3,4,5 or 6)-Me₂-Ph-, 2,(3,4,5 or 6)-Et₂-Ph-, 2,(3,4,5 or 6)-Pr₂-Ph-, 2,(3,4,5 or 6)-Bu₂-Ph-, 2,(3,4,5 or 6)-(CN)₂-Ph-, 2,(3,4,5 or 6)-(NO₂)₂-Ph-, 2,(3,4,5 or 6)-(NH₂)₂-Ph-, 2,(3,4,5 or 6)-(MeO)₂-Ph-, 2,(3,4,5 or 6)-(CF₃)₂-Ph-, 3,(4 or 5)-F₂-Ph-, 3,(4 or 5)-Cl₂-Ph-, 3,(4 or 5)-Br₂-Ph-, 3,(4 or 5)-I₂-Ph-, 3,(4 or 5)-Me₂-Ph-, 3,(4 or 5)-Et₂-Ph-, 3,(4 or 5)-Pr₂-Ph-, 3,(4 or 5)-Bu₂-Ph-, 3,(4 or 5)-(CN)₂-Ph-, 3,(4 or 5)-(NO₂)₂-Ph-, 3,(4 or 5)-(NH₂)₂-Ph-, 3,(4 or 5)-(MeO)₂-Ph-, 3,(4 or 5)-(CF₃)₂-Ph-, 2-Me-Ph-, 3-Me-Ph-, 4-Me-Ph-, 2-Et-Ph-, 3-Et-Ph-, 4-Et-Ph-, 2-Pr-Ph-, 3-Pr-Ph-, 4-Pr-Ph-, 2-Bu-Ph-, 3-Bu-Ph-, 4-Bu-Ph-, 2-(CN)-Ph-, 3-(CN)-Ph-, 4-(CN)-Ph-, 2-(NO₂)-Ph-, 3-(NO₂)-Ph-, 4-(NO₂)-Ph-, 2-(NH₂)-Ph-, 3-(NH₂)-Ph-, 4-(NH₂)-Ph-, 2-MeO-Ph-, 3-MeO-Ph-, 4-MeO-Ph-, 2-(NH₂-CO)-Ph-, 3-(NH₂-CO)-Ph-, 4-(NH₂-CO)-Ph-, 2-CF₃-Ph-, 3-CF₃-Ph-, 4-CF₃-Ph-, 2-CF₃O-Ph-, 3-CF₃O-Ph-, and 4-CF₃O-Ph-); and

- a saturated or unsaturated heterocyclic group including an aromatic heterocyclic group (such as pyridin-1-yl, pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, thiphen-1-yl, thiphen-2-yl, thiphen-3-yl, pyrimidin-1-yl, pyrimidin-2-yl, pyrimidin-3-yl, pyrimidin-4-yl, pyrimidin-5-yl, pyrimidin-6-yl, tetrazole-1-yl, tetrazole-2-yl, tetrazole-3-yl, tetrazole-4-yl, tetrazole-5-yl, (1,3,4-oxadiazol)-1-yl, (1,3,4-oxadiazol)-2-yl, (1,3,4-oxadiazol)-3-yl, (1,3,4-oxadiazol)-4-yl, (1,3,4-oxadiazol)-5-yl, (1,2,4-oxadiazol)-1-yl, (1,2,4-oxadiazol)-2-yl, (1,2,4-oxadiazol)-3-yl, (1,2,4-oxadiazol)-4-yl, (1,2,4-oxadiazol)-5-yl, (1,3-thiazol)-1-yl, (1,3-thiazol)-2-yl, (1,3-thiazol)-3-yl, (1,3-thiazol)-4-yl, (1,3-thiazol)-5-yl, furan-1-yl, furan-2-yl, and furan-3-yl);

wherein two of R⁷¹ and/or two of R⁷² when attached to the same carbon atom may together form a ketone group.

16. A compound for use in medicine according to any preceding claim, which compound has one of the following formulae:



wherein:

R^3 , R^6 and R^7 are as defined in any preceding claim, preferably wherein R^3 , R^6 and R^7 are as defined in the following:

R^3 is selected from the following:

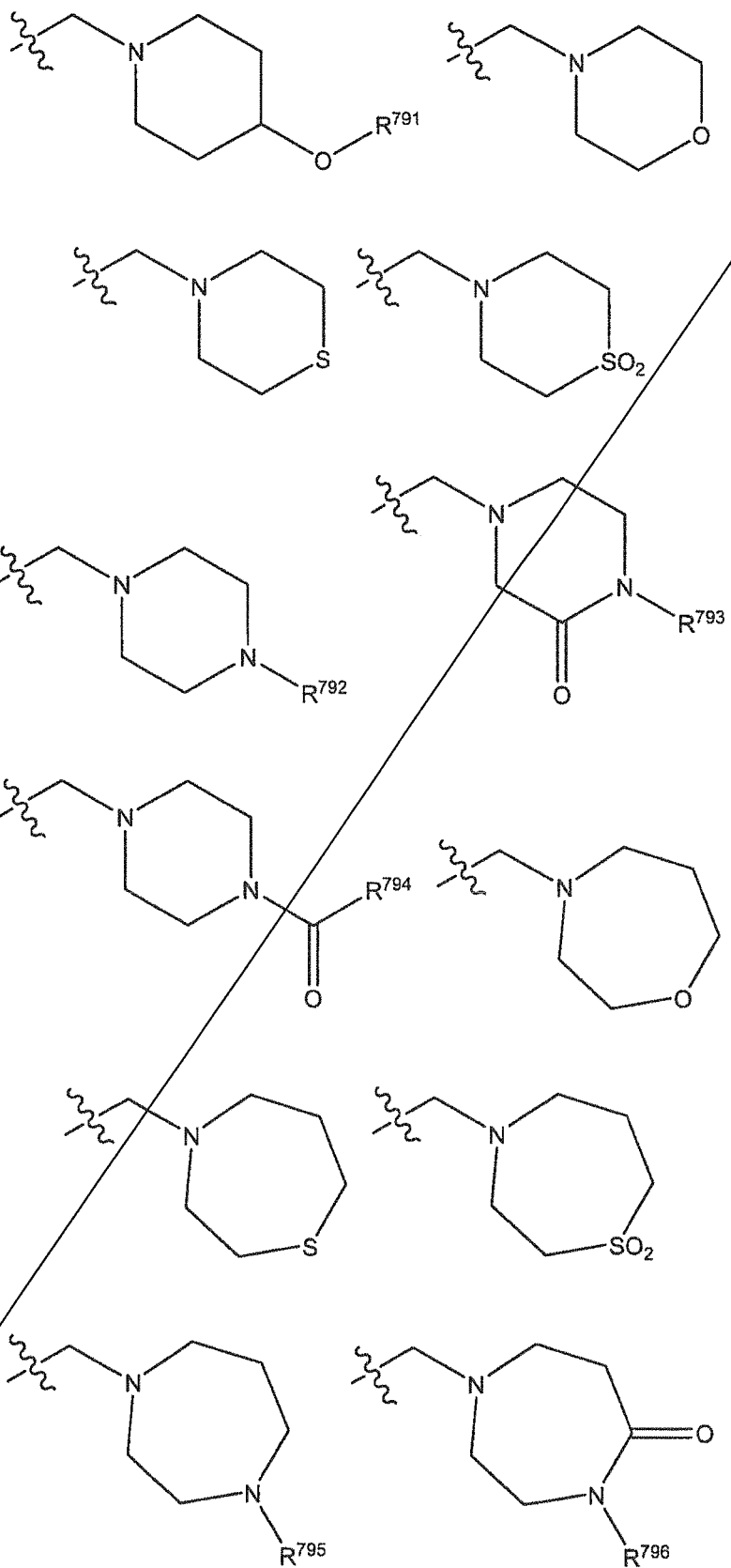
- an unsubstituted, 2-monosubstituted, or 2,6-disubstituted phenyl group, preferably where the substituent is selected from F, Cl and CN (such as Ph-, 2-F-Ph-, 2,6-F₂-Ph-, 2-Cl-Ph-, 2,6-Cl₂-Ph-, 2-CN-Ph-, 2,6-(CN)₂-Ph-, 2,6-F,CN-Ph-, 2,6-F,Cl-Ph-, and 2,6-Cl,CN-Ph-);
- an unsubstituted or 3-monosubstituted pyridine-2-yl, or a 2,6-disubstituted pyridine-4-yl group, preferably where the substituent is selected from F, Cl and CN (such as Pyr-2-yl, Pyr-3-yl, Pyr-4-yl, 3-F-Pyr-2-yl, 3-Cl-Pyr-2-yl, 3-CN-Pyr-2-yl, 2,6-F₂-Pyr-4-yl, 2,6-Cl₂-Pyr-4-yl and 2,6-(CN)₂-Pyr-4-yl. In this context Pyr means pyridine;
- an unsubstituted or 4-substituted pyrid-1,2-azine-3-yl group, preferably where the substituent is selected from F, Cl and CN (such as pyridazine-3-yl, 4-F-pyridazine-3-yl, 4-Cl-pyridazine-3-yl, and 4-CN-pyridazine-3-yl);
- a substituted or unsubstituted 1,2,4-oxadiazol-3-yl group;
- a cyclic aminosulphonyl group (such as -N(SO₂)(CH₂)₃ and -N(SO₂)(CH₂)₄);
- a linear or branched aminosulphonyl group (such as -NH-SO₂-Me, -NH-SO₂-Et, -NH-SO₂-iPr, -NH-SO₂-cycloPr, -NH-SO₂-Pr, -NH-SO₂-EtOMe, -NMe-SO₂-Me, -NMe-SO₂-Et, -NMe-SO₂-iPr, -NMe-SO₂-cycloPr, -NMe-SO₂-Pr, -NMe-SO₂-EtOMe, -NEt-SO₂-Me, -NEt-SO₂-Et, -NEt-SO₂-iPr, -NEt-SO₂-cycloPr, -NEt-SO₂-Pr, -NEt-SO₂-EtOMe, -NiPr-SO₂-Me, -NiPr-SO₂-Et, -NiPr-SO₂-iPr, -NiPr-SO₂-cycloPr, -NiPr-SO₂-Pr, -NiPr-SO₂-EtOMe, -N(CHF₂)-SO₂-Me, -N(CHF₂)-SO₂-Et, -N(CHF₂)-SO₂-iPr, -N(CHF₂)-SO₂-cycloPr, -N(CHF₂)-SO₂-Pr, and -N(CHF₂)-SO₂-EtOMe;

- a linear or branched sulphonylamino group (such as $-\text{SO}_2\text{-NH}_2$, $-\text{SO}_2\text{-NHMe}$, $-\text{SO}_2\text{-NHEt}$, $-\text{SO}_2\text{-NMe}_2$, $-\text{SO}_2\text{-NMeEt}$, $-\text{SO}_2\text{-NHEt}_2$, and $-\text{SO}_2\text{-pyrrolidin-N-yl}$);
- a linear or branched sulphonyl group (such as $-\text{SO}_2\text{Me}$, $-\text{SO}_2\text{Et}$, $-\text{SO}_2\text{Pr}$, $-\text{SO}_2\text{iPr}$);
- a thioether group (such as $-\text{SMe}$, $-\text{SEt}$, $-\text{SPr}$, and SiPr);
- a branched or cyclic alkyl or alkenyl group having 3 carbon atoms or more, preferably having from 3 to 6 carbon atoms, and preferably selected from an isopropyl, a cyclopropyl and a propen-2-yl group;

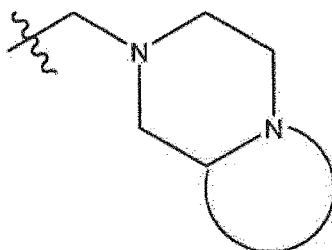
R^6 is selected from the following:

- an unsubstituted, 2,3- or 4-monosubstituted, and a 2,4 or 3,4-disubstituted phenyl group, preferably wherein the substituent is F, Cl or $-\text{OMe}$ (such as 2-F-Ph, 2-Cl-Ph, 2-OMe-Ph, 3-F-Ph, 3-Cl-Ph, 3-OMe-Ph, 4-F-Ph, 4-Cl-Ph, 4-OMe-Ph, 2,4-F₂-Ph, 2,4-Cl₂-Ph, 2,4-(OMe)₂-Ph, 3,4-F₂-Ph, 3,4-Cl₂-Ph, and 3,4-(OMe)₂-Ph);
- a substituted or unsubstituted pyridine-2-yl, pyridine-3-yl or pyridine-4-yl group preferably wherein the substituent is F or Cl (such as pyridine-2-yl, pyridine-3-yl, pyridine-4-yl, 3-F-pyridine-2-yl, 3-Cl-pyridine-2-yl, 4-F-pyridine-2-yl, 4-Cl-pyridine-2-yl, 5-F-pyridine-2-yl, 5-Cl-pyridine-2-yl);
- a cyclic ether group (such as tetrahydrofuran-2-yl, tetrahydrofuran-3-yl, tetrahydropyran-2-yl, tetrahydropyran-3-yl and tetrahydropyran-4-yl);

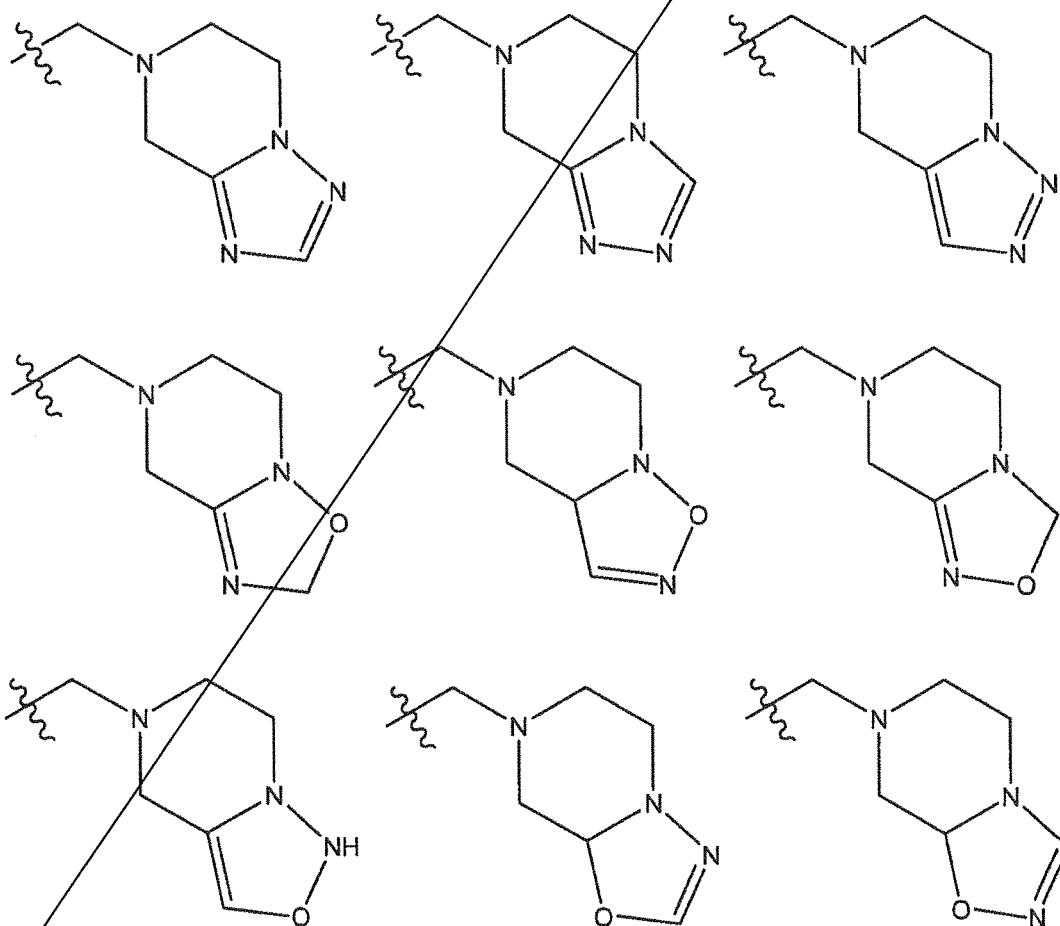
R^7 is selected from the following groups:

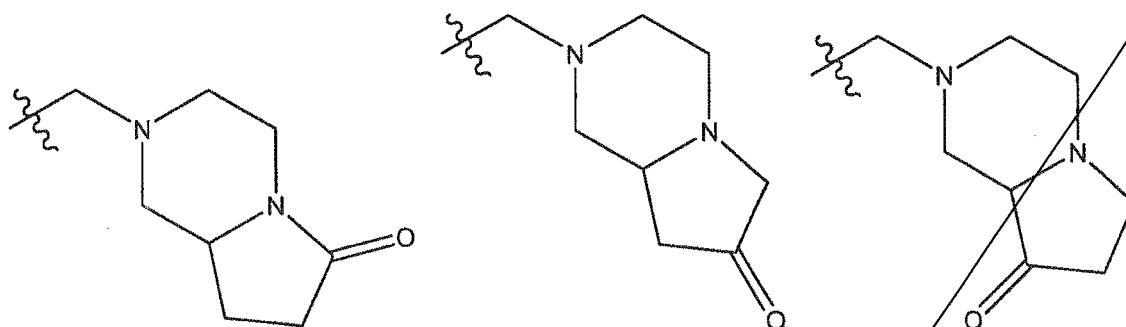


and also from a group having the following structure:



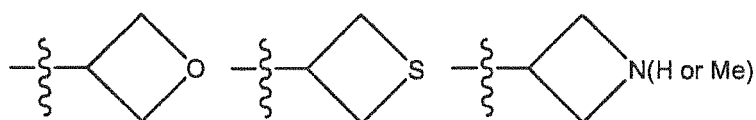
where the ring fused to the piperazine ring is a 5- or 6-membered ring optionally having 1 or more further heteroatoms in the ring selected from N and O and optionally having one or more substituents, preferably wherein this group is selected from the following:

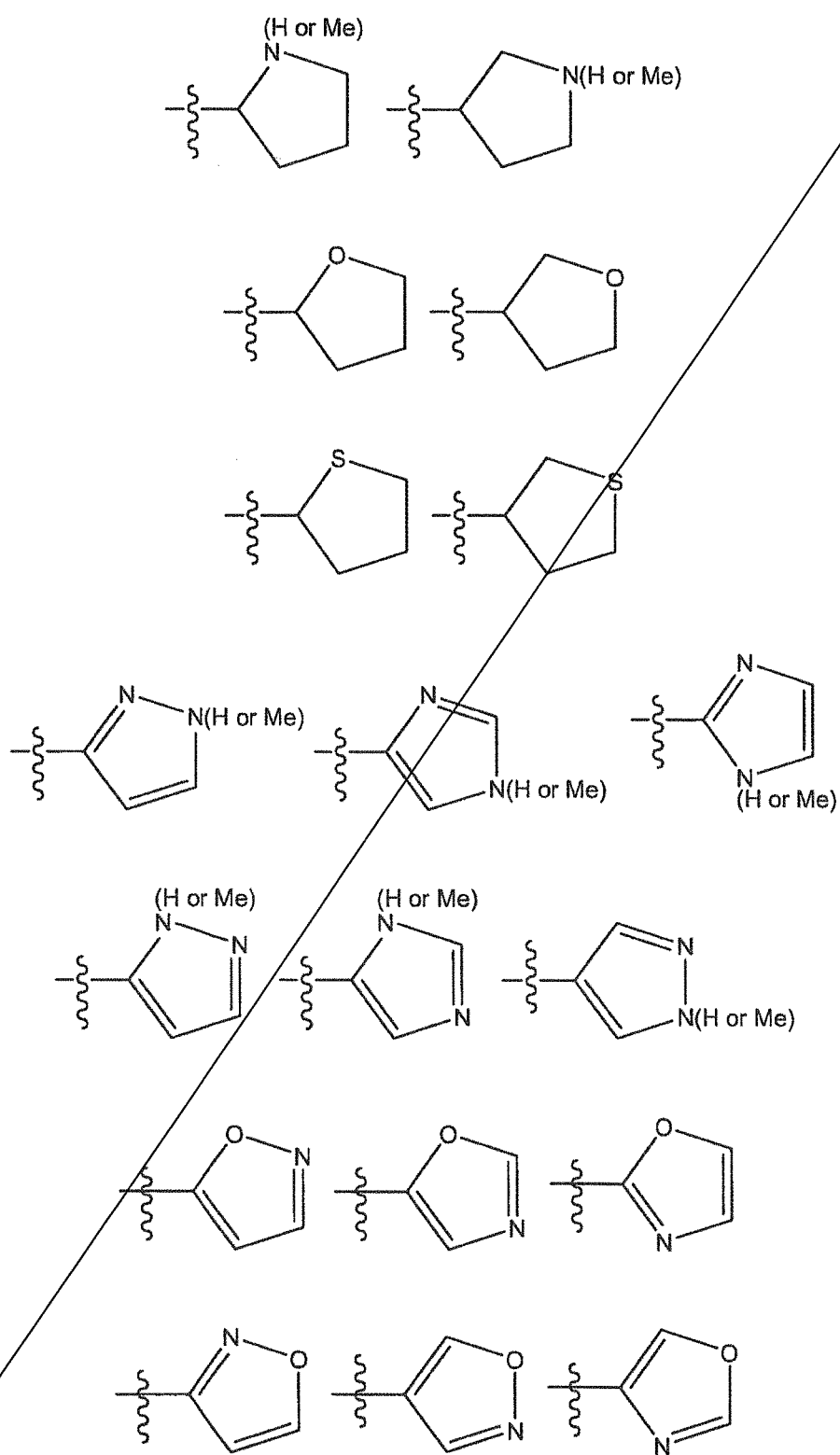


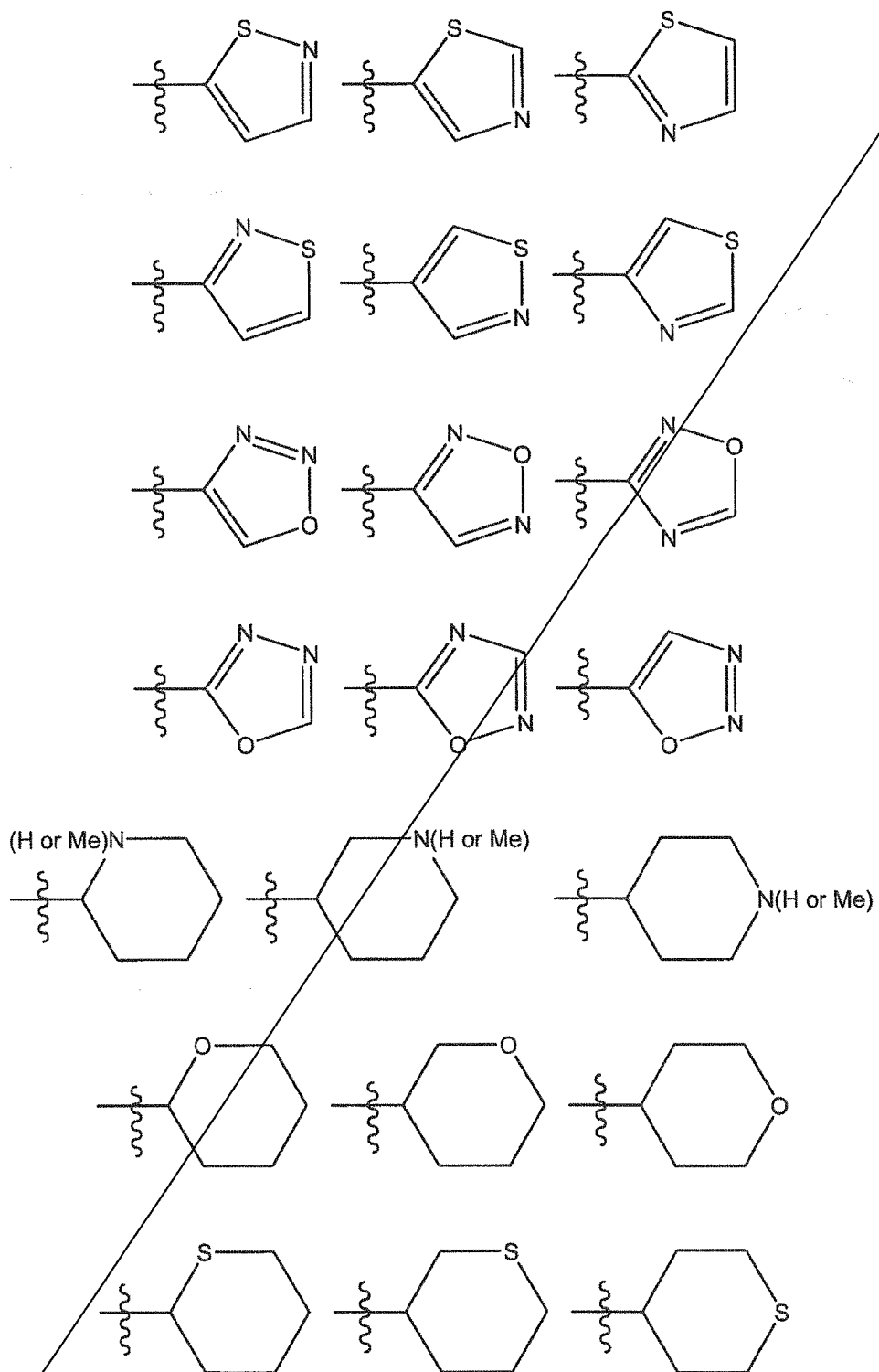


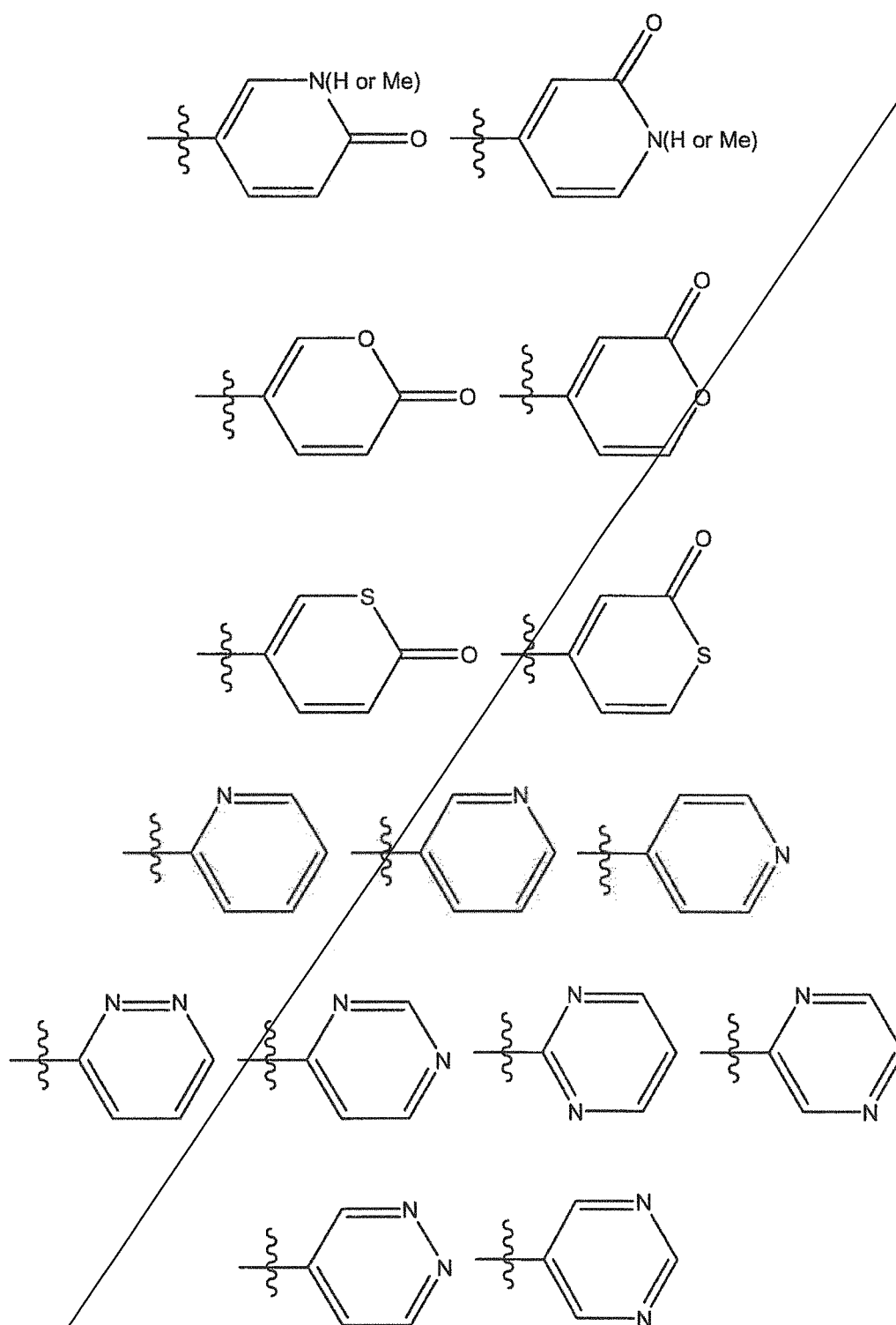
wherein R^{791} , R^{792} , R^{793} , R^{794} , R^{795} , and R^{796} are as defined below:

- R^{791} is selected from H, Me, Et, Pr, iPr, cyPr, and cyBu, preferably H;
- R^{792} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)-Et$, $-(CO)-Pr$, $-(CO)iPr$, $-SO_2Me$, and SO_2Et , preferably H, Me, $-SO_2Me$ and $-(CO)-Me$;
- R^{793} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)Et$, $-(CO)Pr$, and $-(CO)iPr$, preferably H, Me and $-(CO)-Me$;
- R^{794} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu; an unsubstituted, 2,3- or 4-monosubstituted, and a 2,4 or 3,4-disubstituted phenyl group, preferably wherein the substituent is F, Cl CN, or $-OMe$ (such as 2-F-Ph, 2-Cl-Ph, 2-CN-Ph, 2-OMe-Ph, 3-F-Ph, 3-Cl-Ph, 3-CN-Ph, 3-OMe-Ph, 4-F-Ph, 4-Cl-Ph, 4-CN-Ph, 4-OMe-Ph, 2,4-F₂-Ph, 2,4-Cl₂-Ph, 2,4-(CN)₂-Ph, 2,4-(OMe)₂-Ph, 3,4-F₂-Ph, 3,4-Cl₂-Ph, 3,4-(CN)₂-Ph, and 3,4-(OMe)₂-Ph); $-NH_2$, $-NHMe$, and $-NMe_2$; $-OH$, $-OMe$, $-OEt$, $-OPr$, $-OiPr$, $-O^tBu$, and $-O^iBu$; $-CH_2OH$, $-CHMeOH$, $-C(Me)_2OH$, $-CH_2OMe$, $-CHMeOMe$, $-C(Me)_2OMe$, $-CH_2OEt$, $-CHMeOEt$, and $-C(Me)_2OEt$; and a heterocyclic ring group having from 4-7 ring atoms with at least one heteroatom selected from N, O, and S, which ring group may be saturated or unsaturated and may be substituted or unsubstituted, preferably wherein the heterocyclic ring group is selected from the following groups:





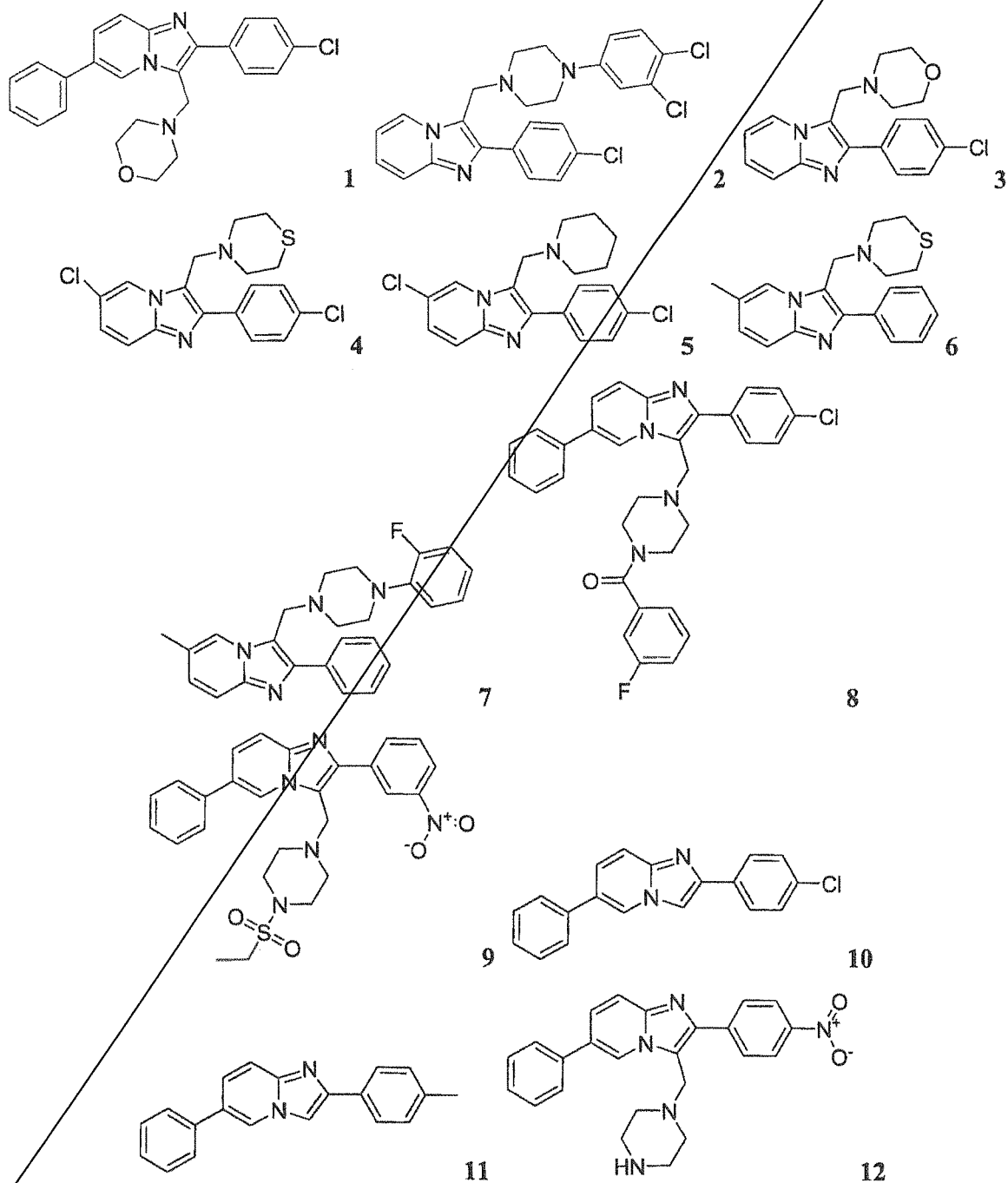


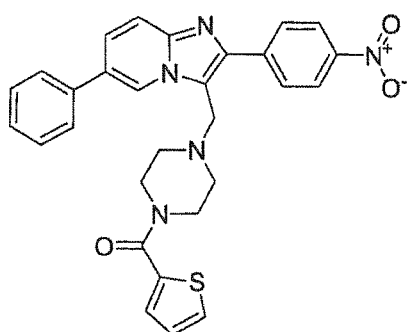


- R^{795} is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, $-(CO)-Me$, $-(CO)-Et$, $-(CO)-Pr$, $-(CO)-iPr$, $-SO_2Me$, and SO_2Et , preferably H, Me, $-SO_2Me$ and $-(CO)-Me$;

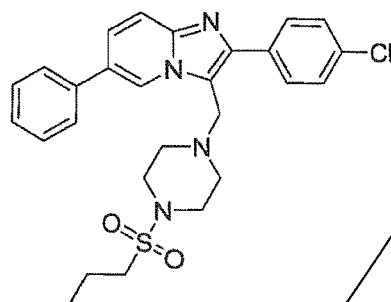
- R⁷⁹⁶ is selected from H, Me, Et, Pr, iPr, cyPr, cyBu, -(CO)-Me, -(CO)Et, -(CO)Pr, and -(CO)iPr, preferably H, Me and -(CO)-Me.

17. A compound for use in medicine according to any preceding claim, which compound comprises a formula selected from one of the following:

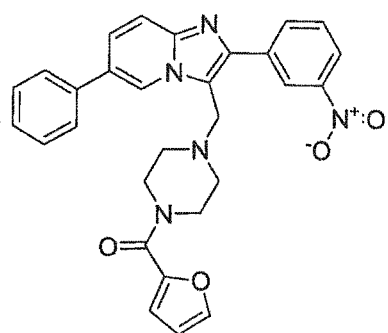




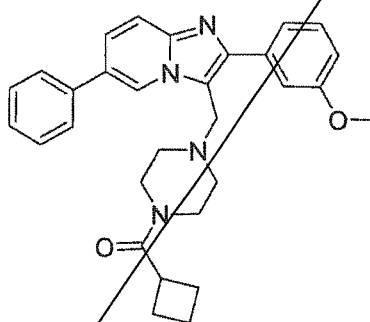
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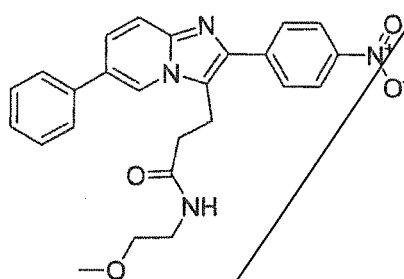
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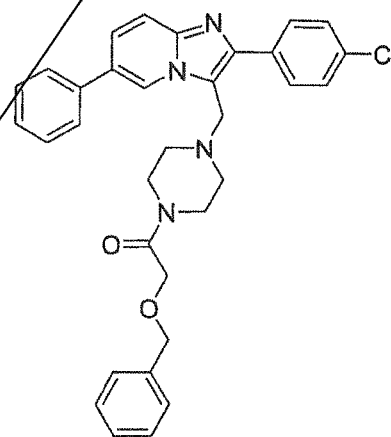
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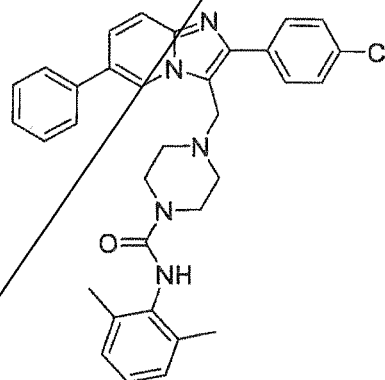
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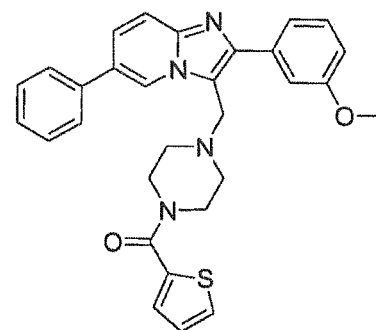
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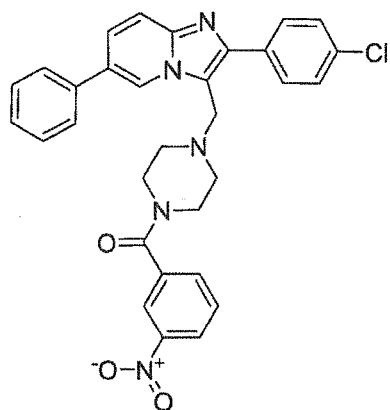
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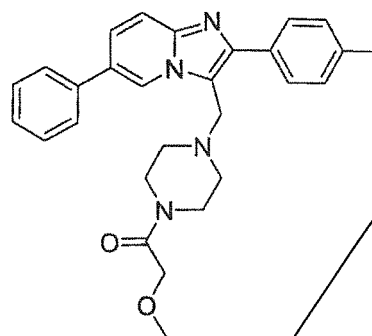
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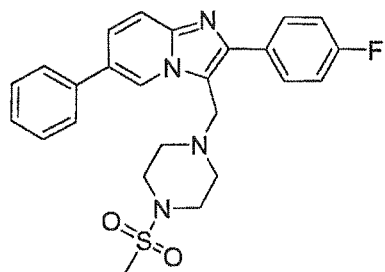
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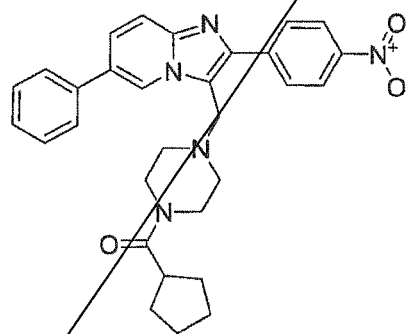
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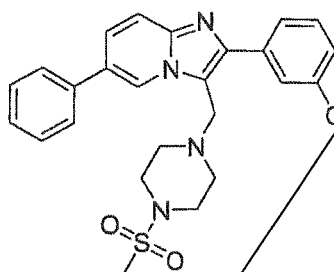
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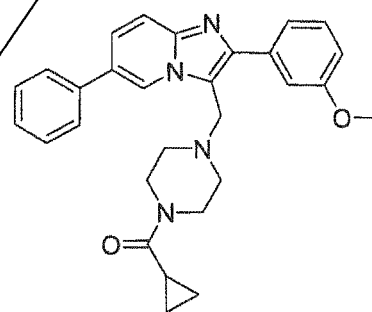
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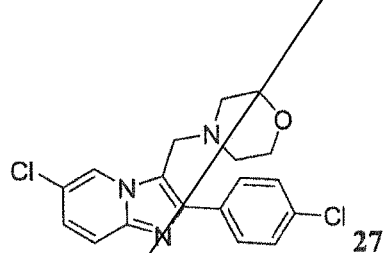
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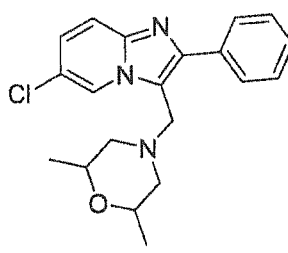
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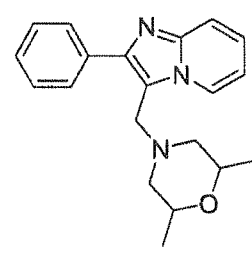
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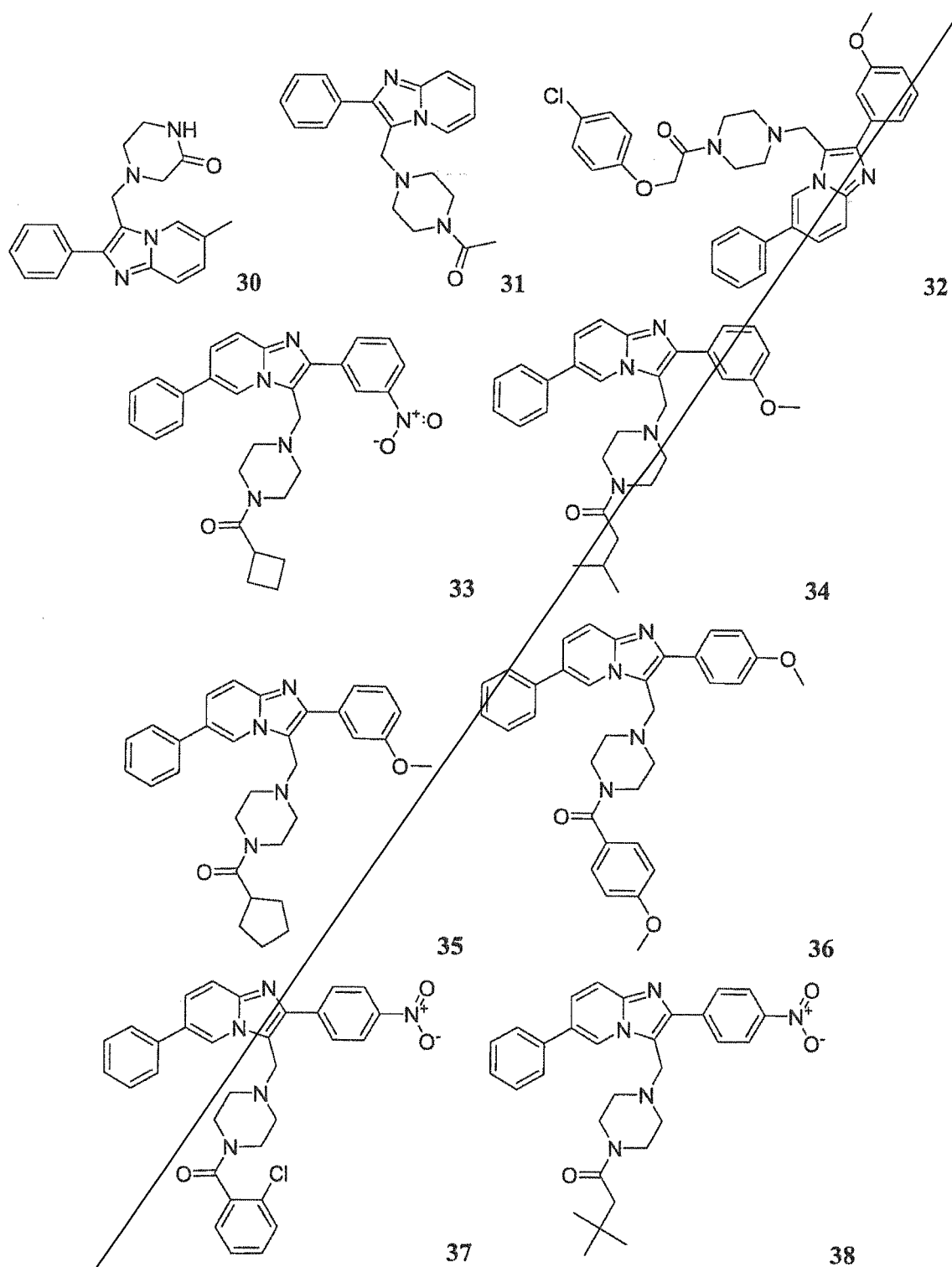
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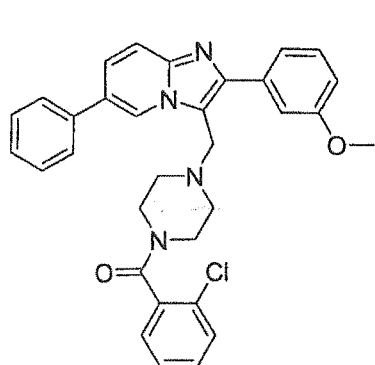


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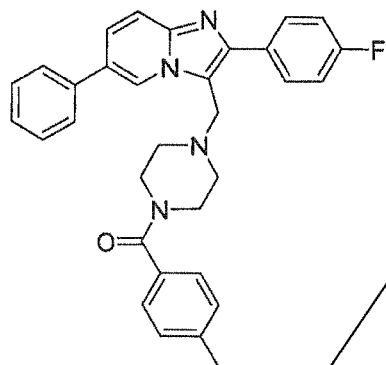


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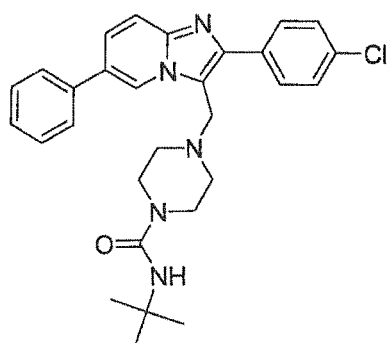




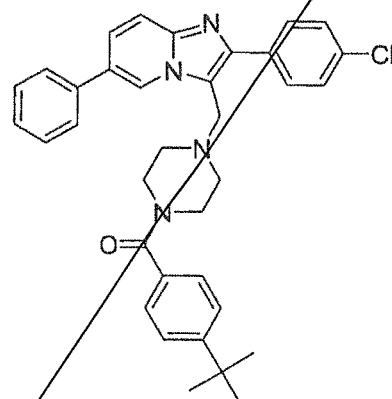
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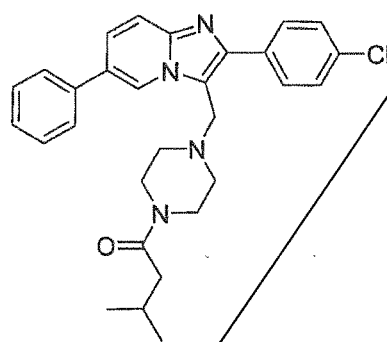
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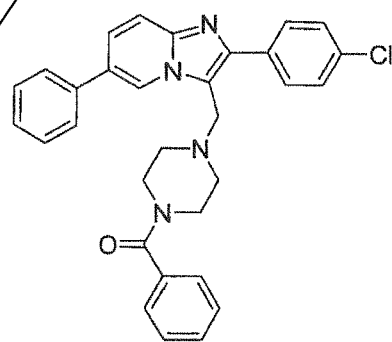
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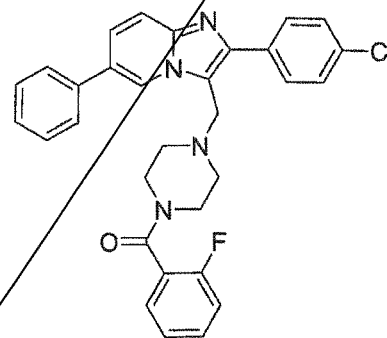
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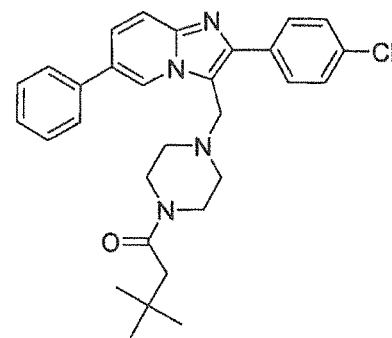
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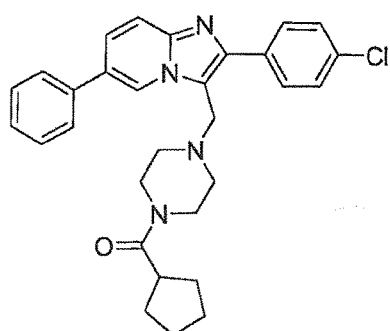
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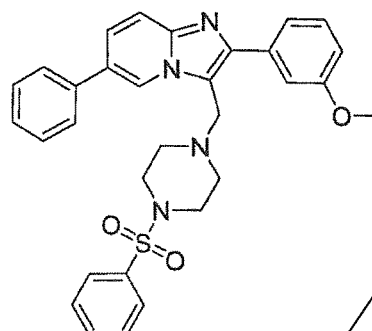
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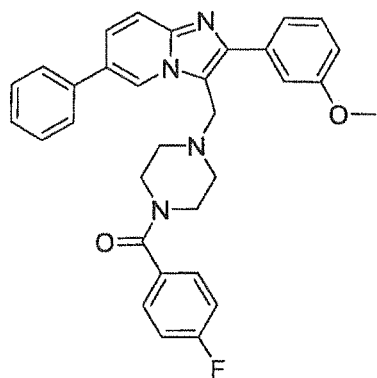
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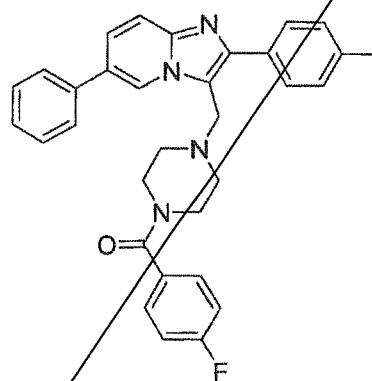
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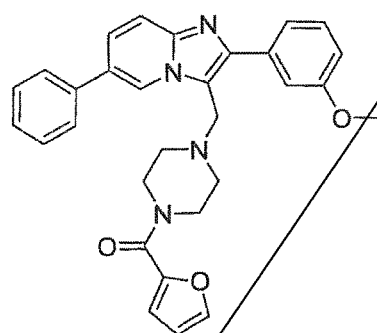
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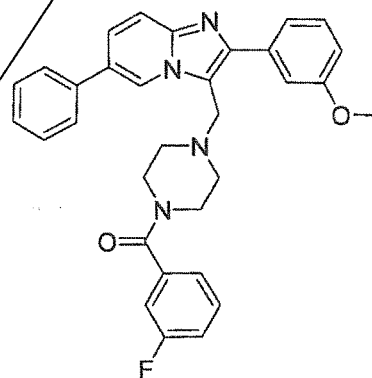
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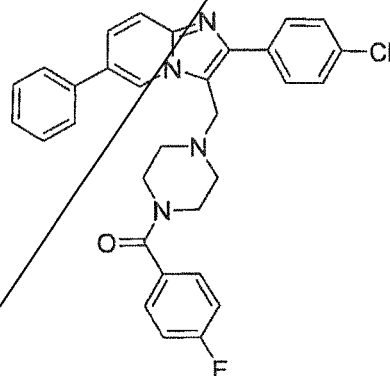
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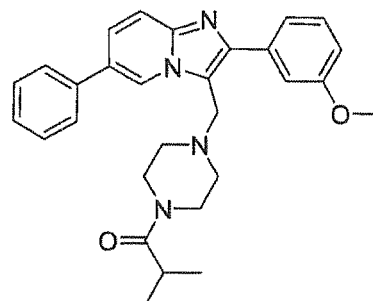
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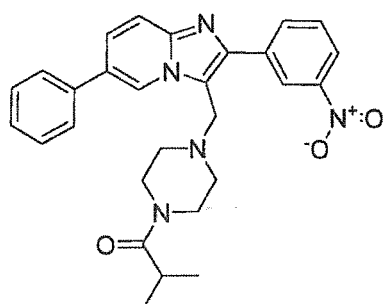
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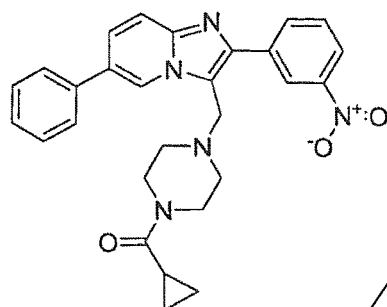
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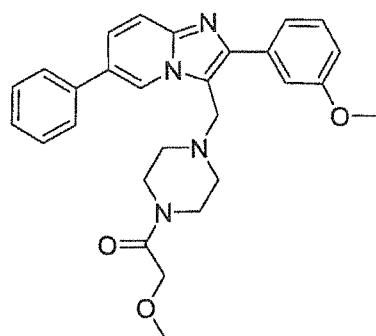
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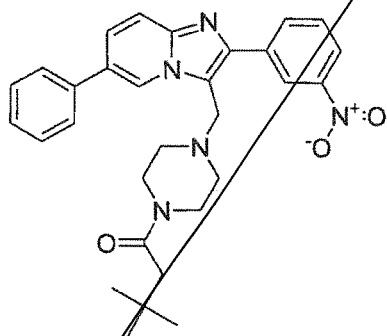
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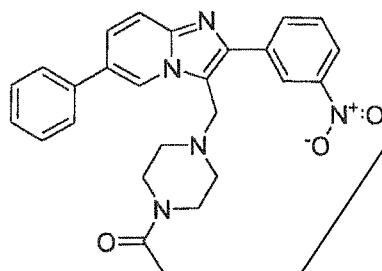
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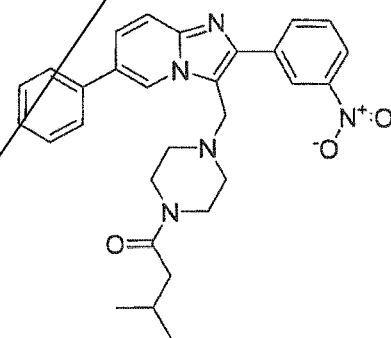
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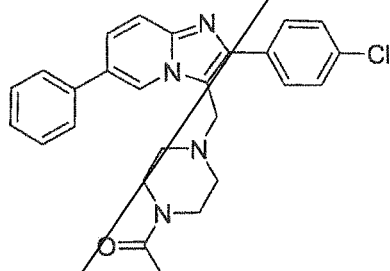
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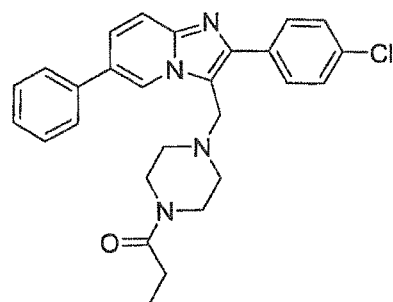
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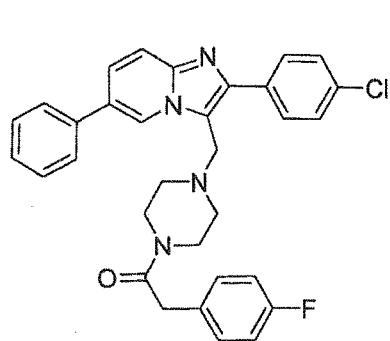
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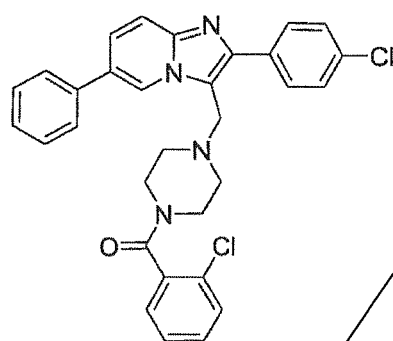
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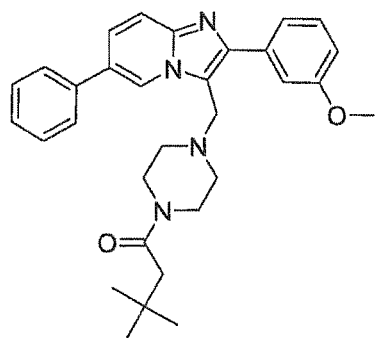
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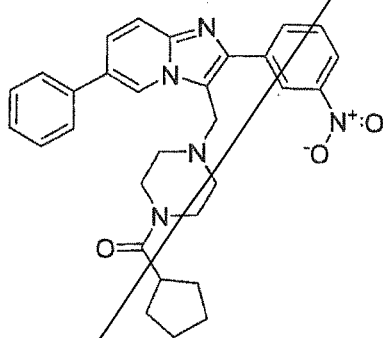
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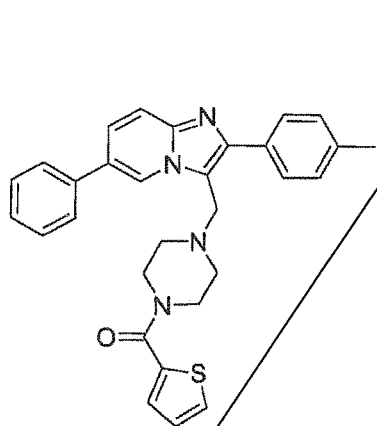
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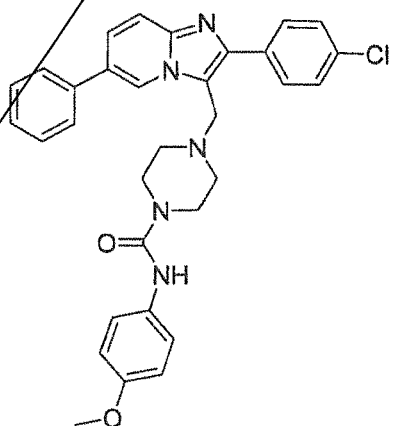
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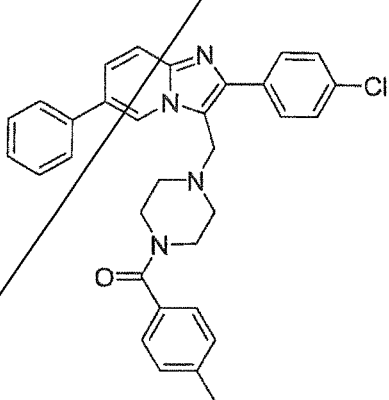
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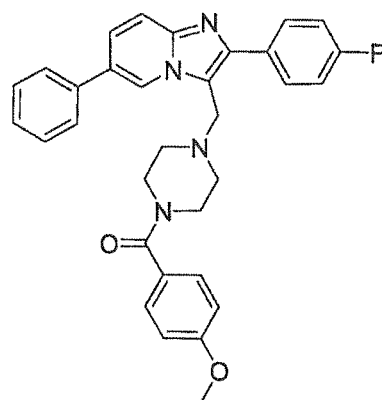
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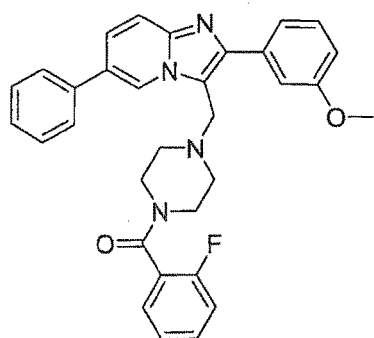
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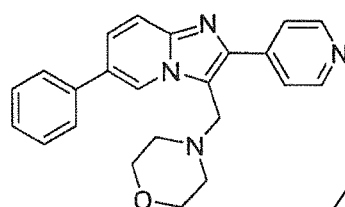
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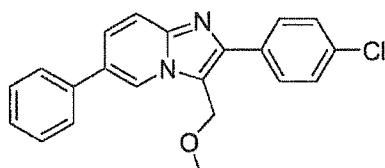
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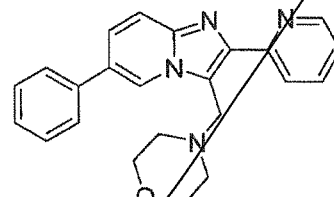
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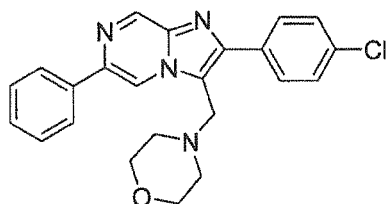
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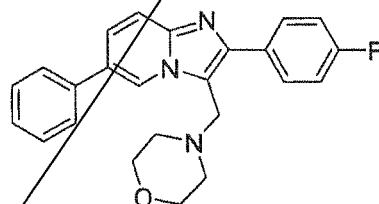
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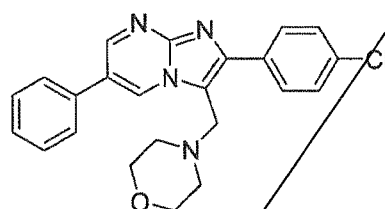
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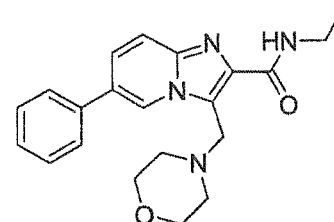
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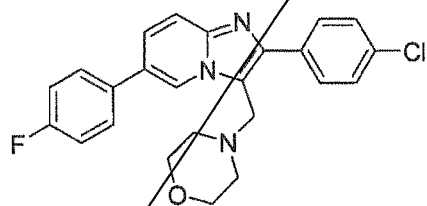
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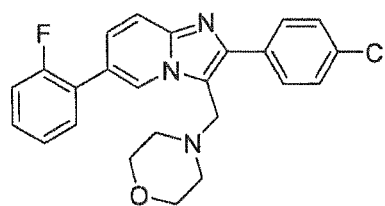
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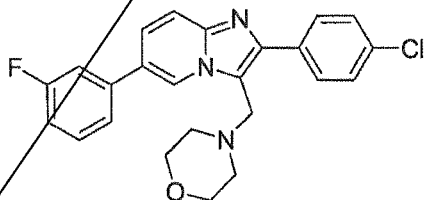
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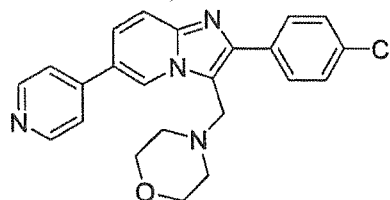
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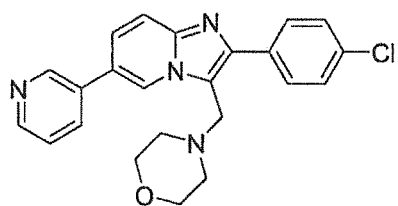
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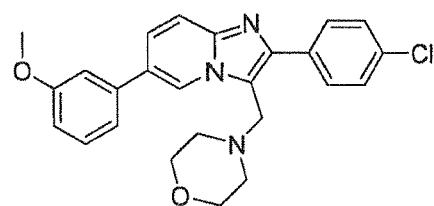
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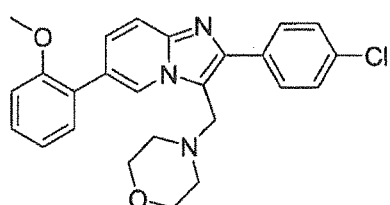
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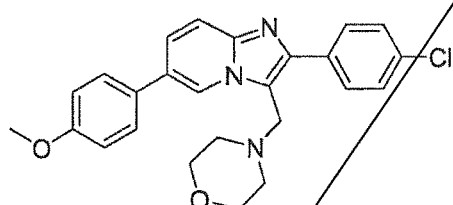
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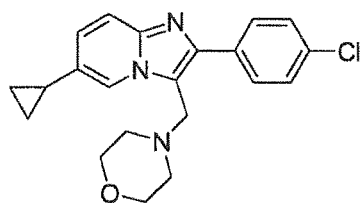
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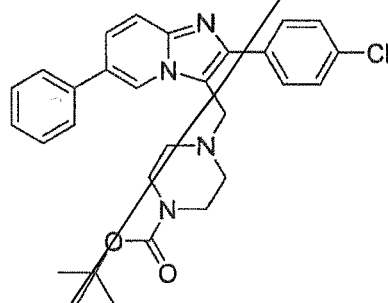
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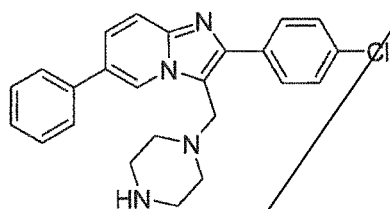
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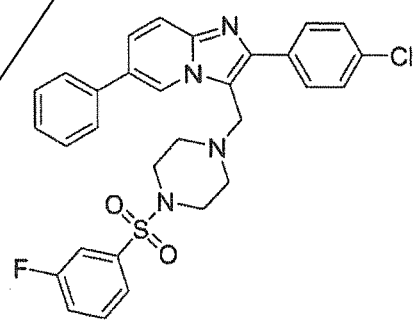
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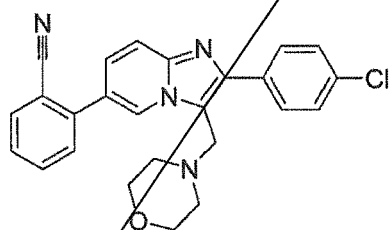
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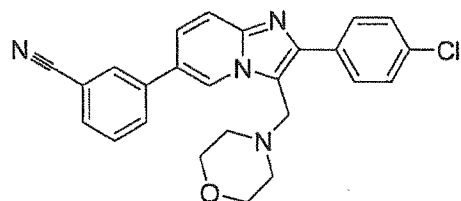
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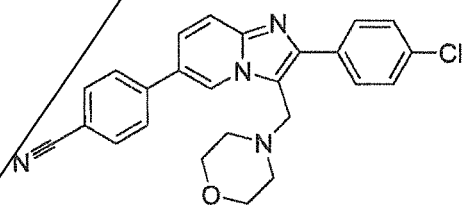
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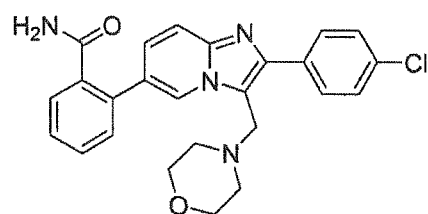
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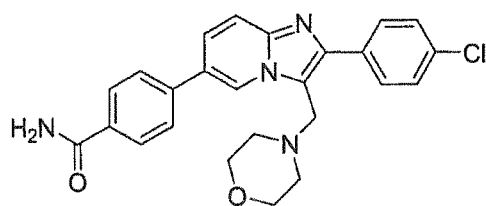
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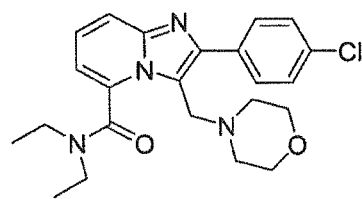
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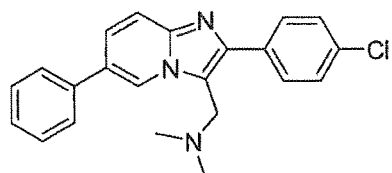
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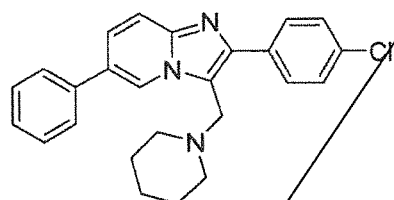
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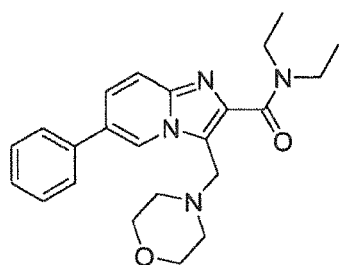
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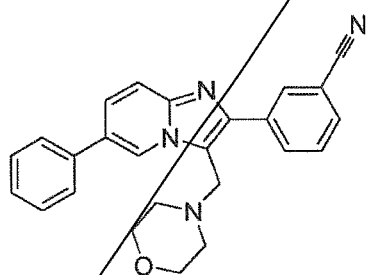
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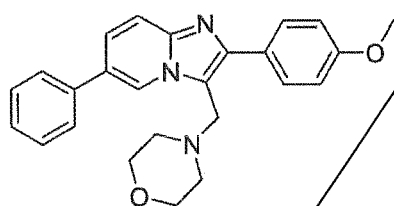
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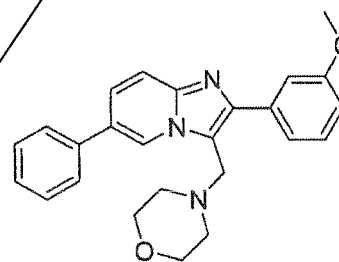
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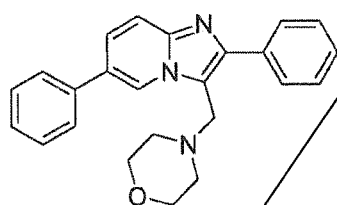
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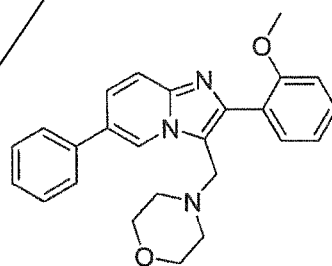
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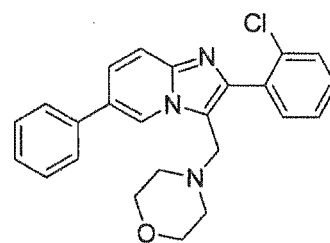
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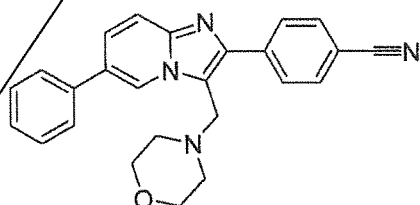
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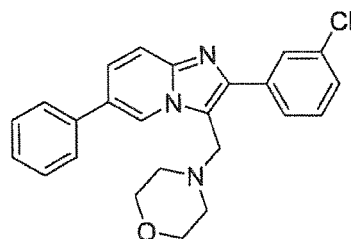
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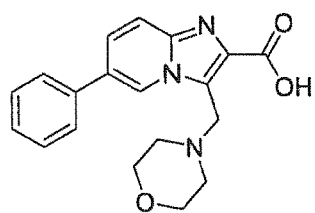


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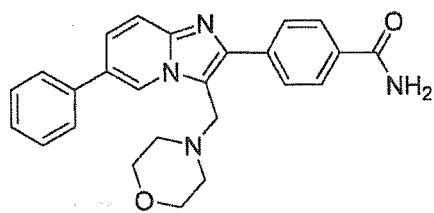


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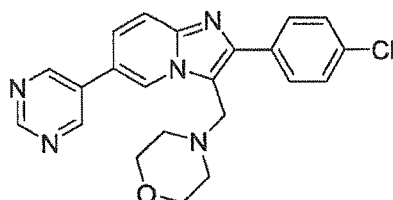
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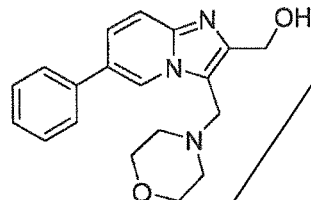
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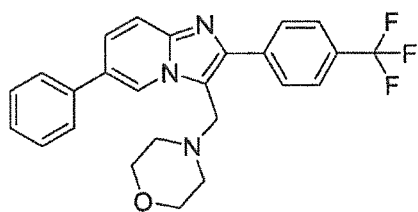
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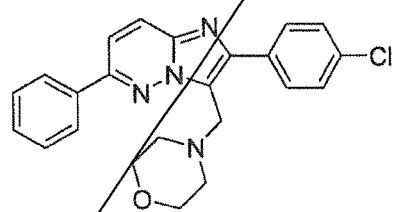
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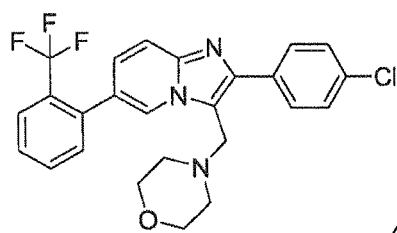
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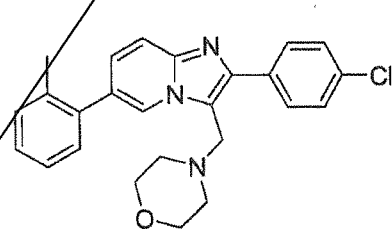
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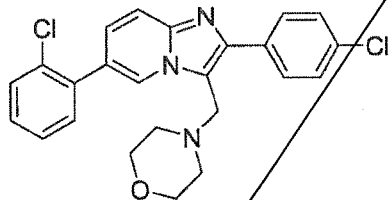
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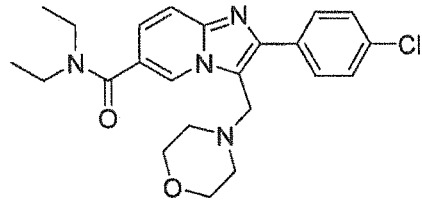
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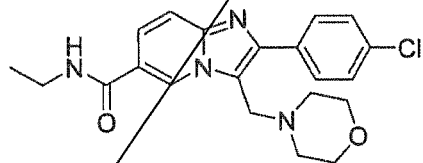
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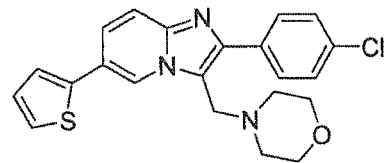
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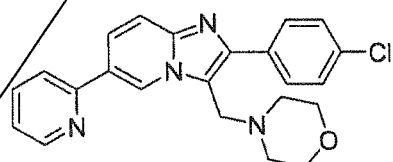
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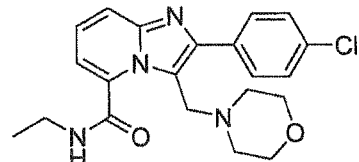
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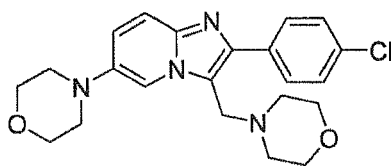


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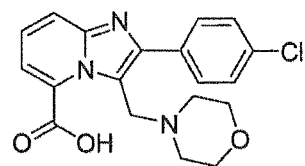


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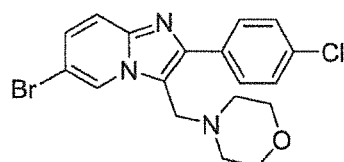
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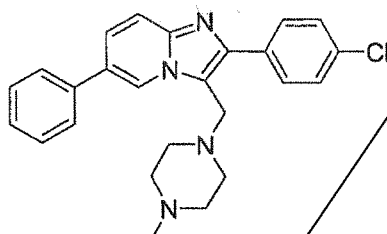
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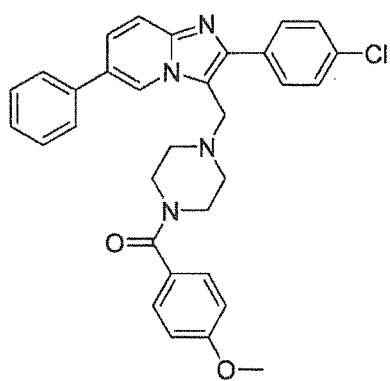
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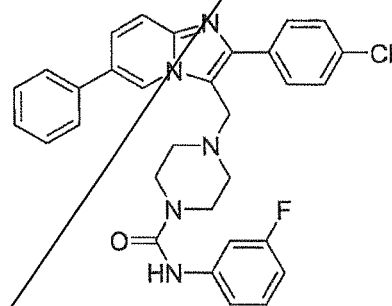
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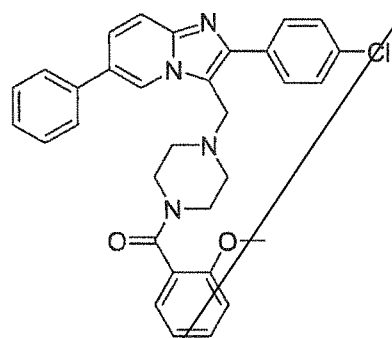
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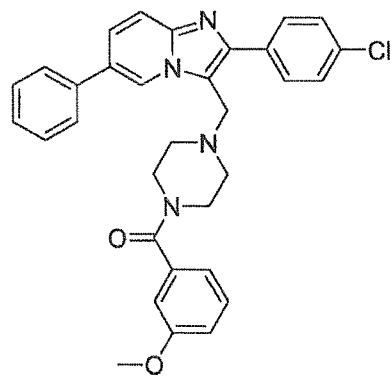
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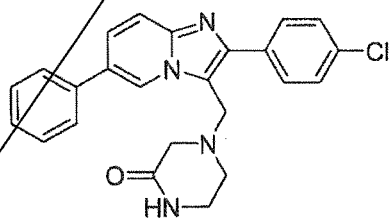
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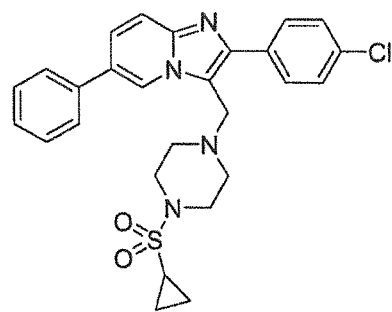
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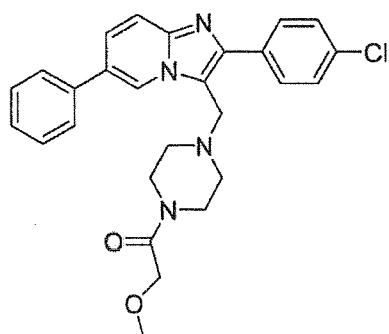


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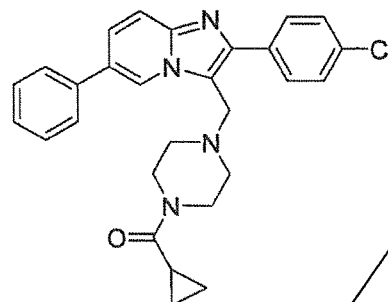


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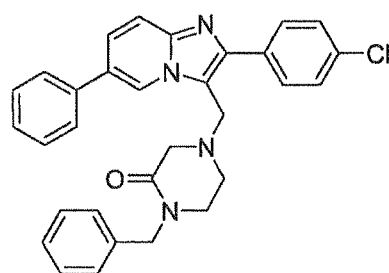
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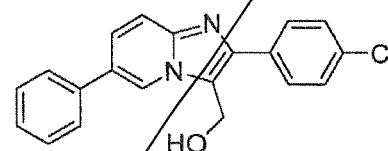
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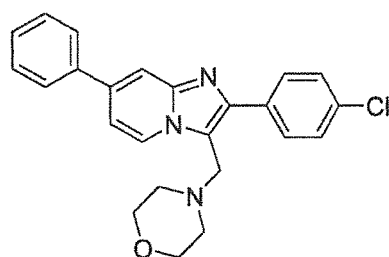
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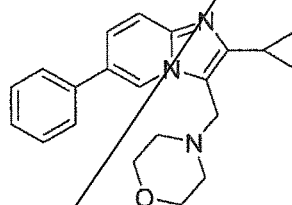
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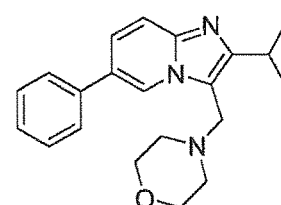
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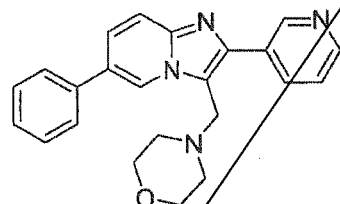
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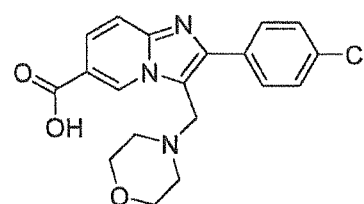
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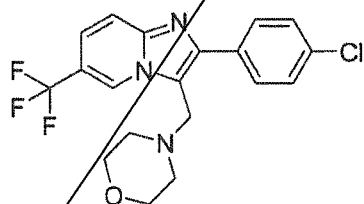
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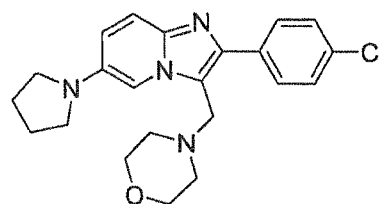
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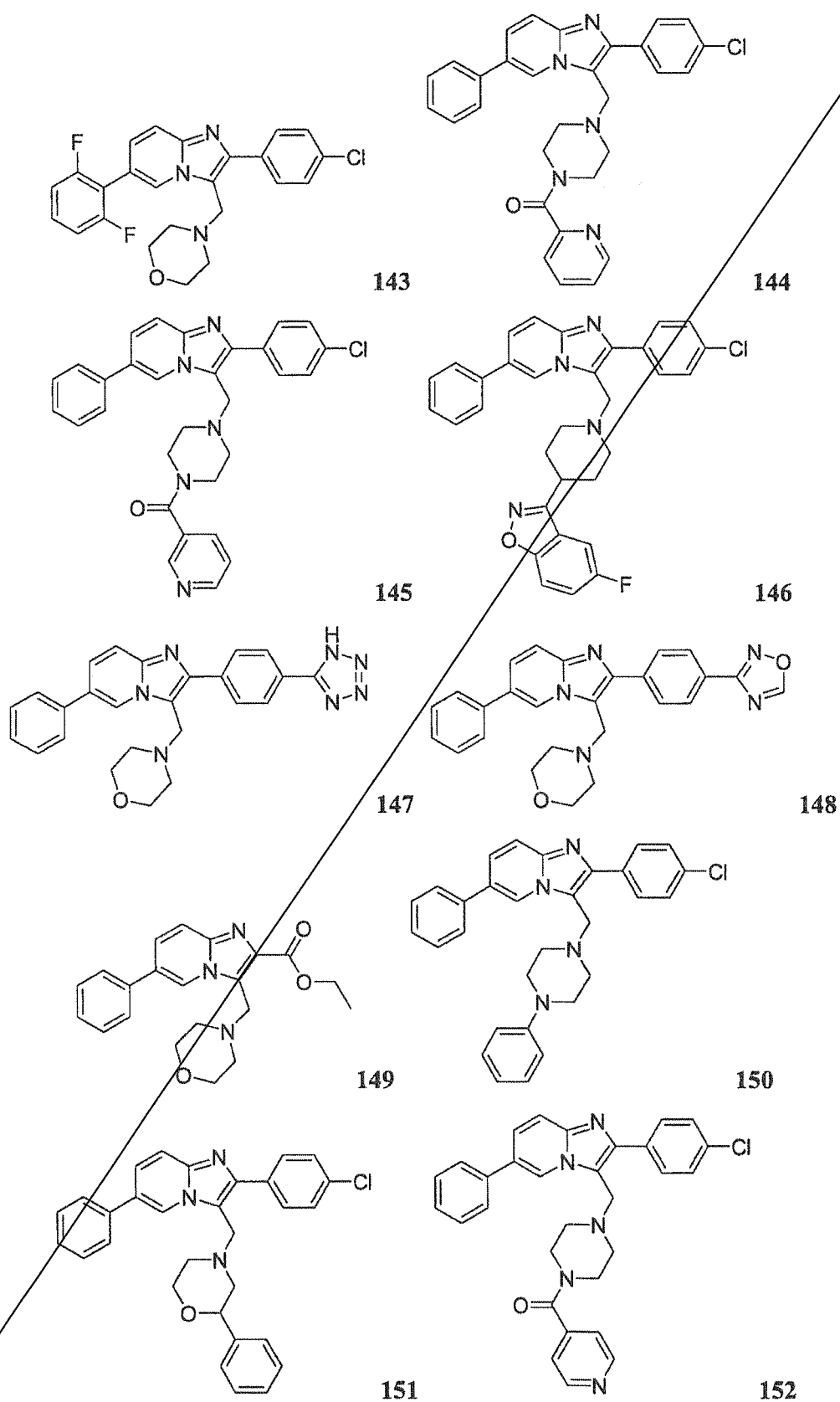


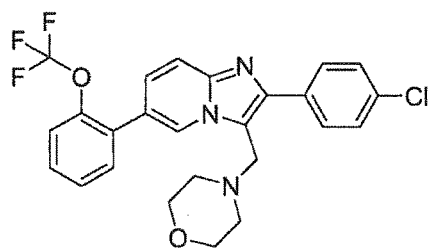
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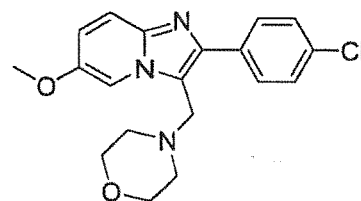
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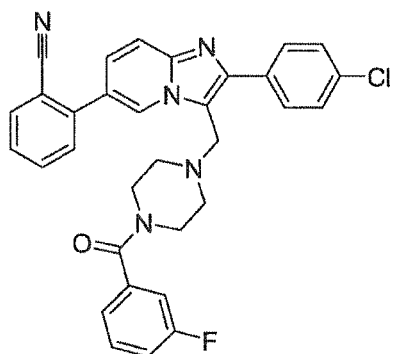




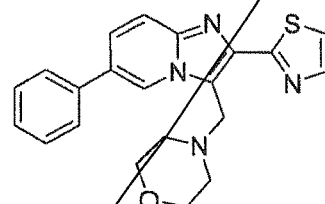
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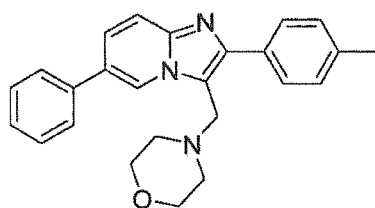
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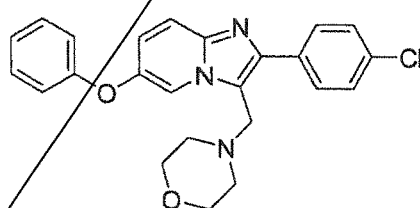
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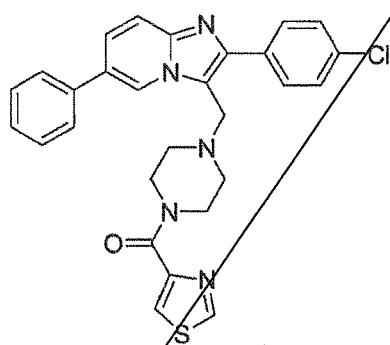
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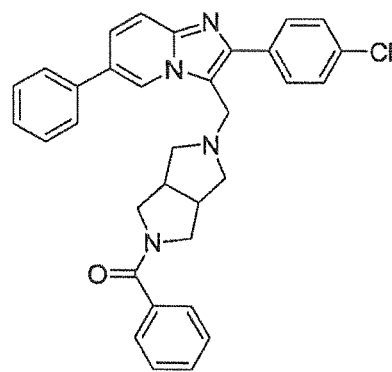
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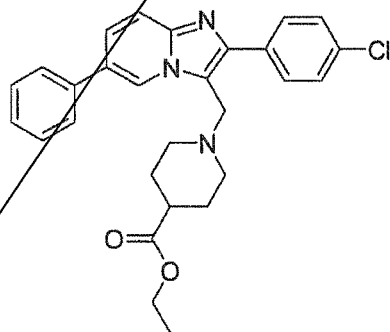
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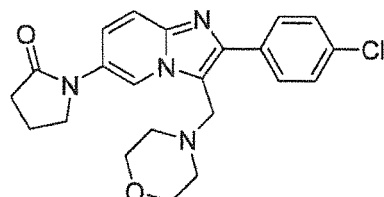
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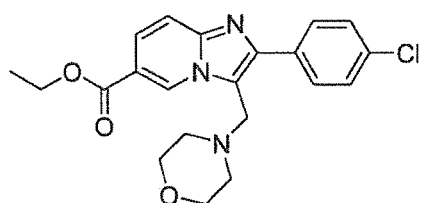


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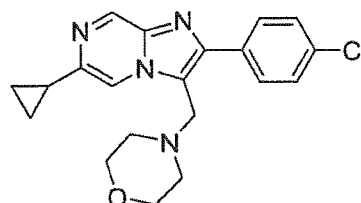


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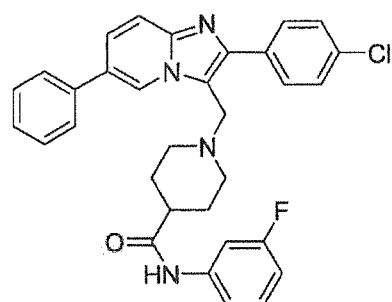
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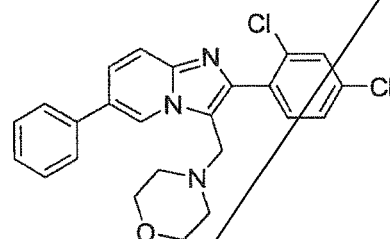
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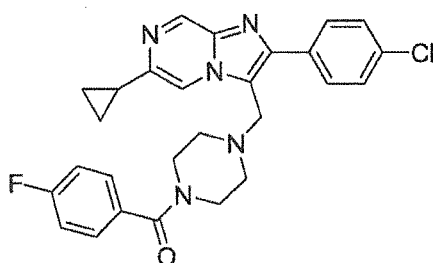
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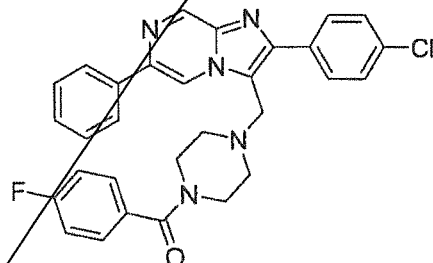
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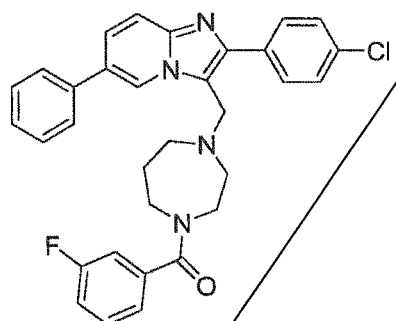
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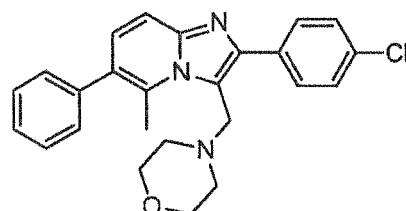
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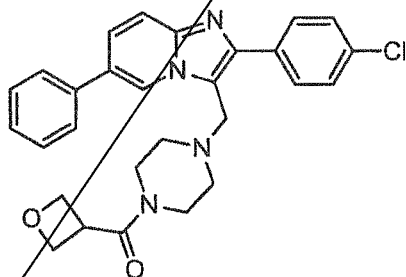
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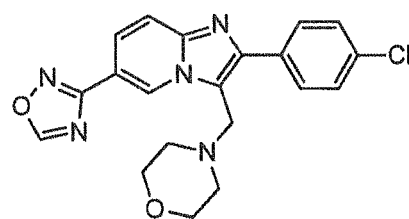
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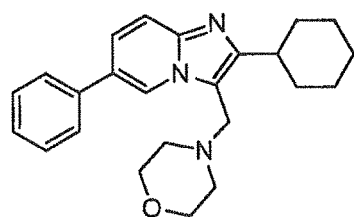


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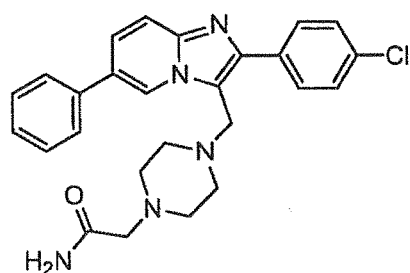


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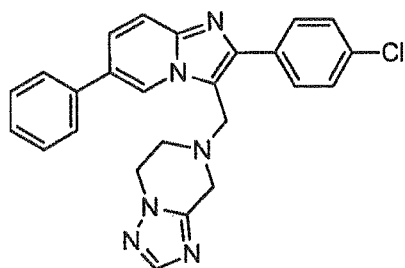
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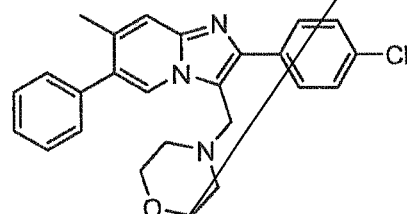
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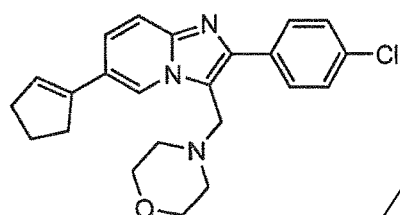
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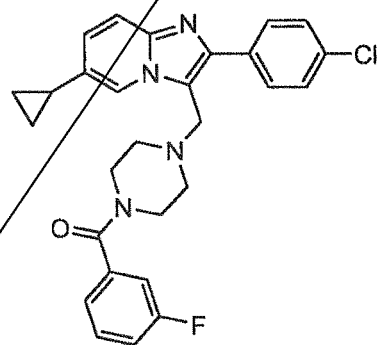
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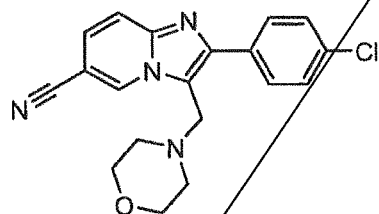
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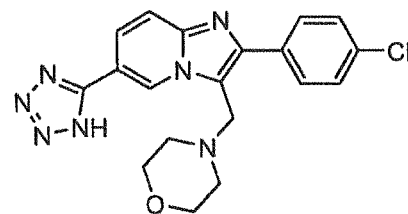
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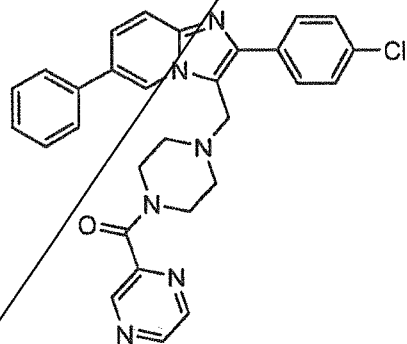
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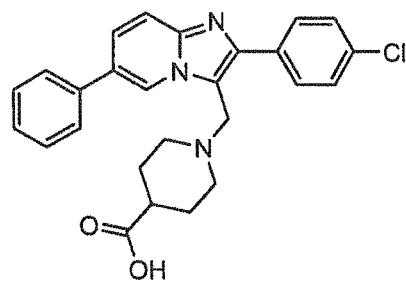
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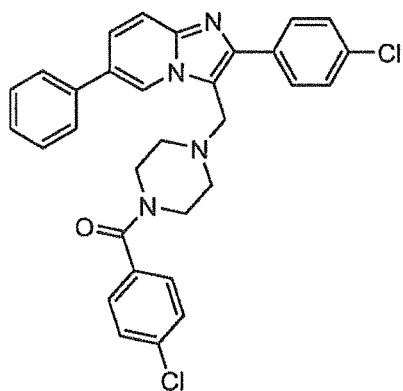
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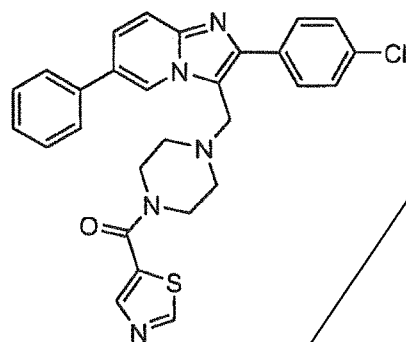
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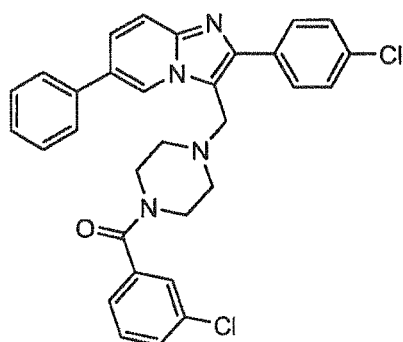
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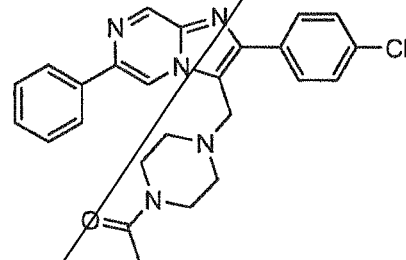
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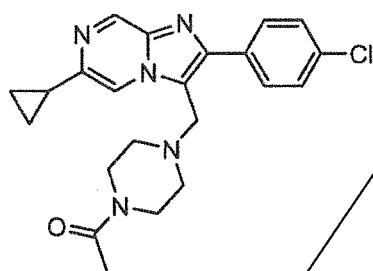
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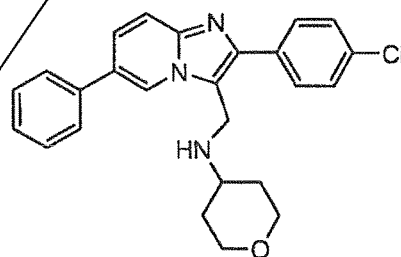
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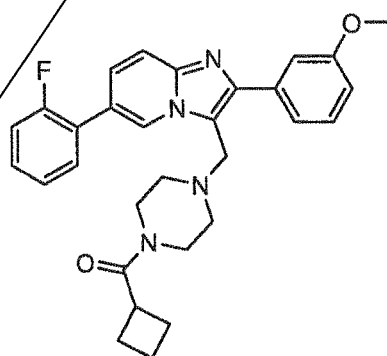
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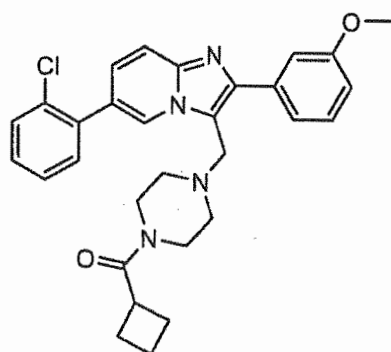


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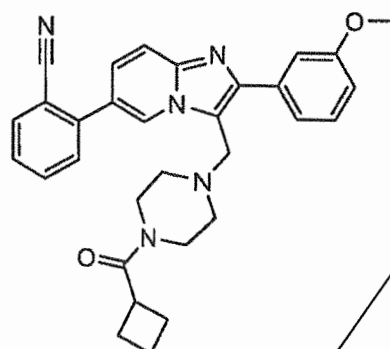


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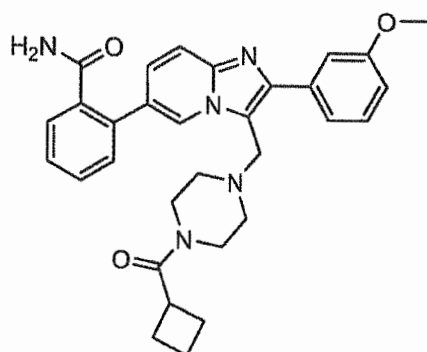
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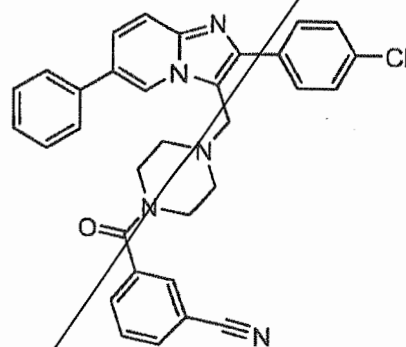
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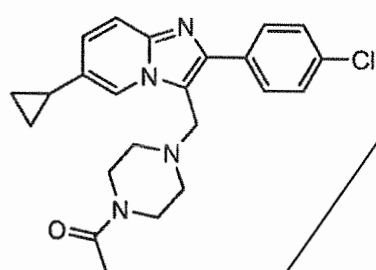
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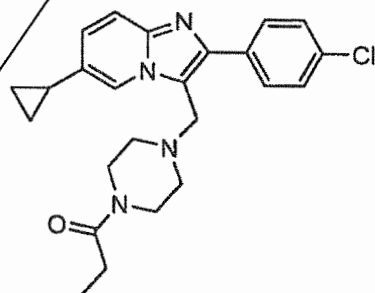
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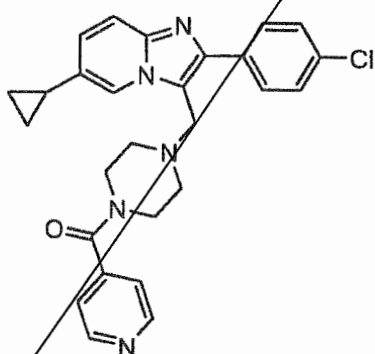
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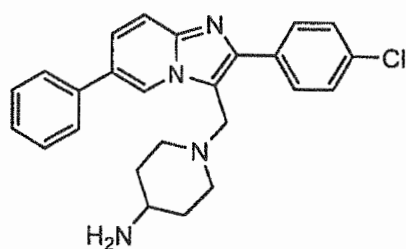
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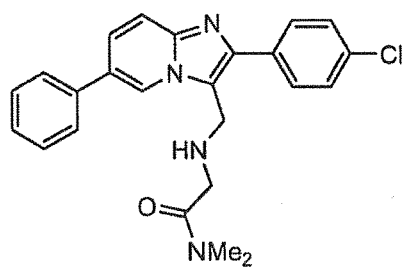


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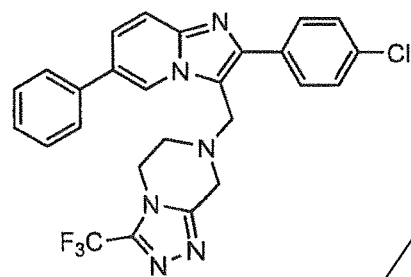


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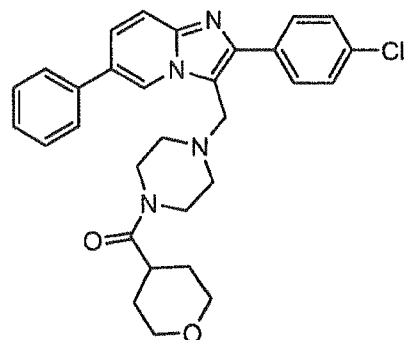
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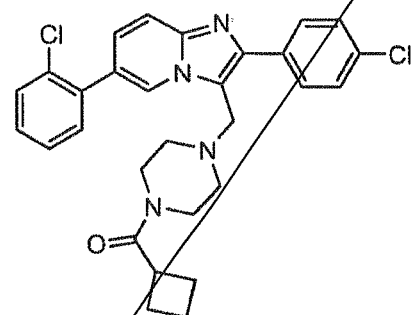
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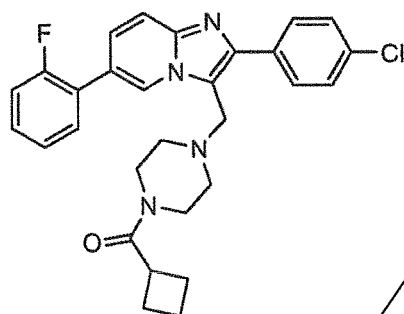
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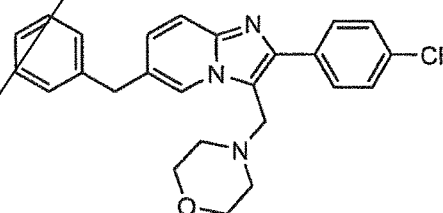
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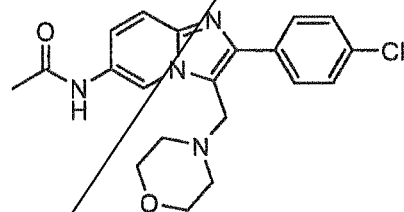
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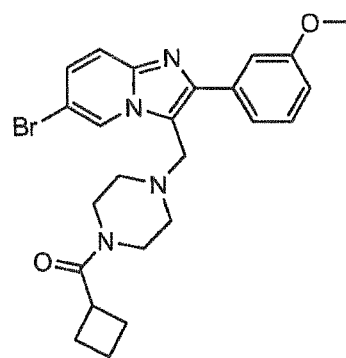
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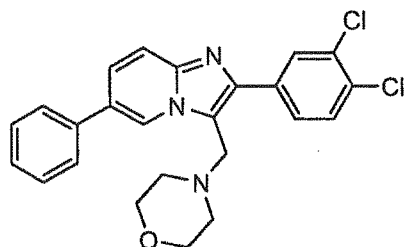


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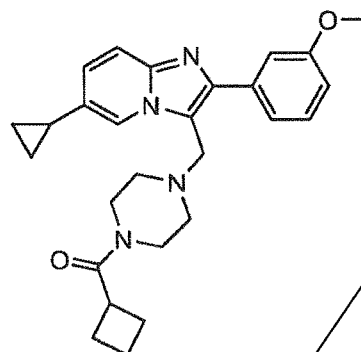


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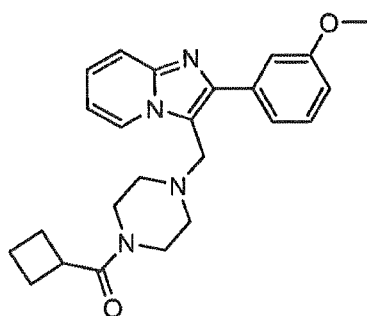
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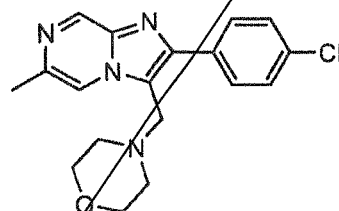
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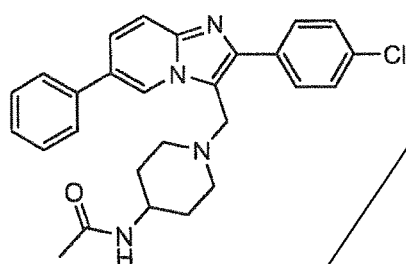
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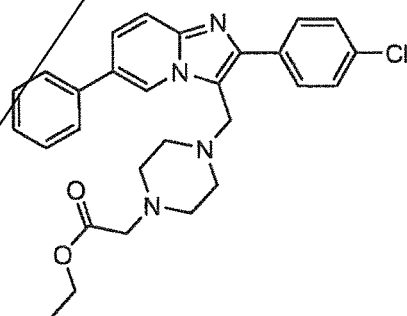
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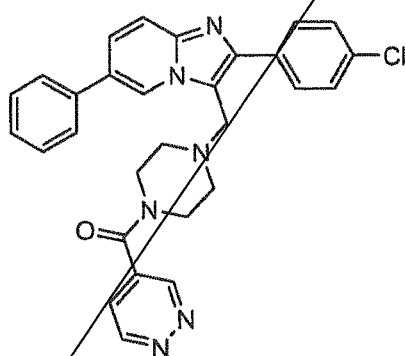
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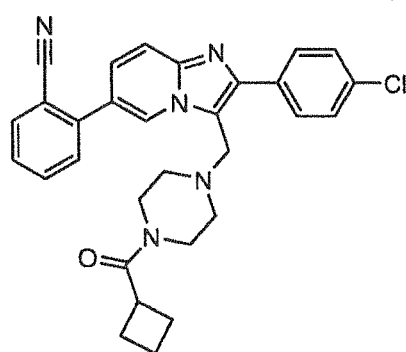
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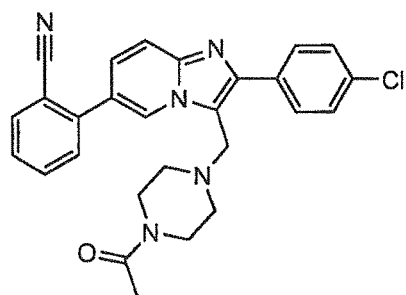


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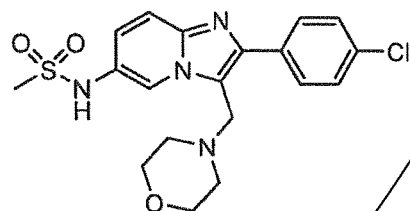


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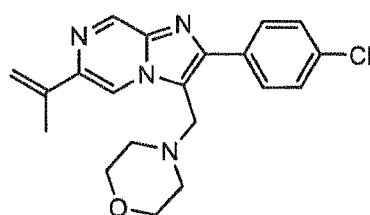
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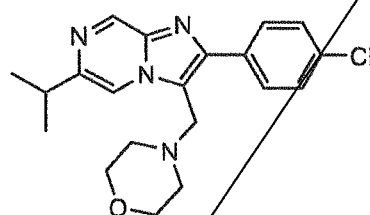
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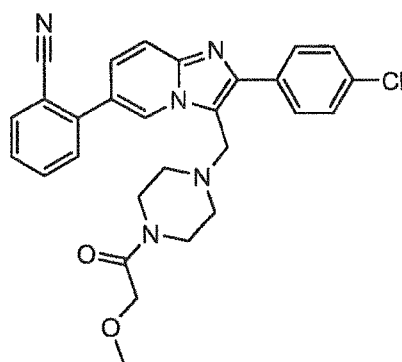
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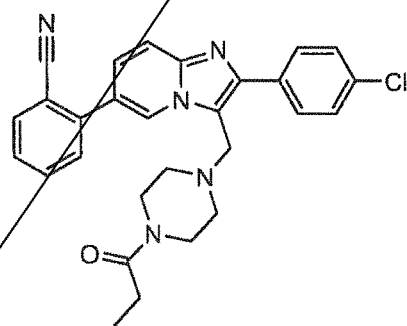
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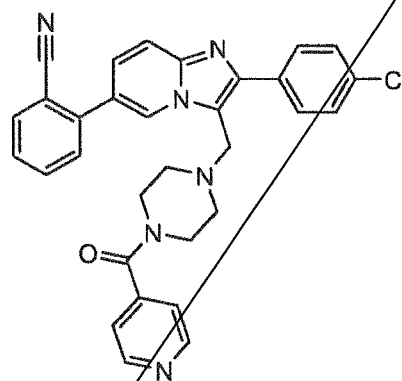
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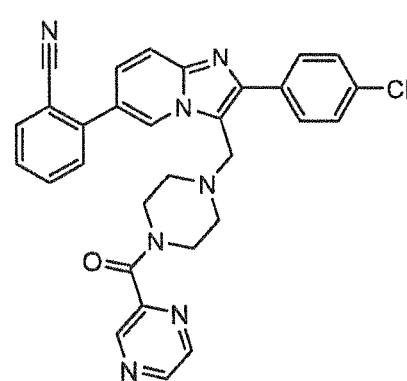
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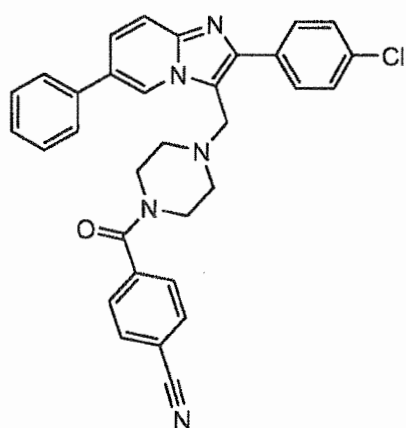


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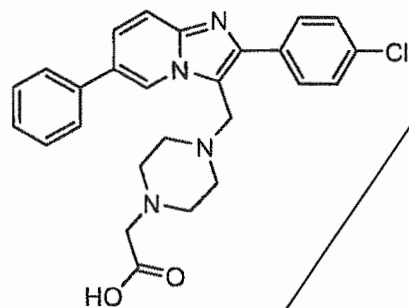


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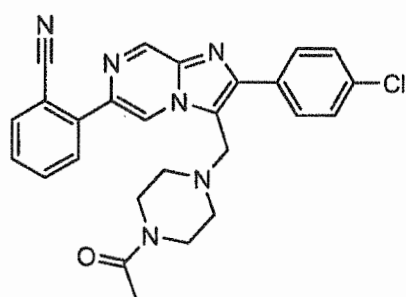
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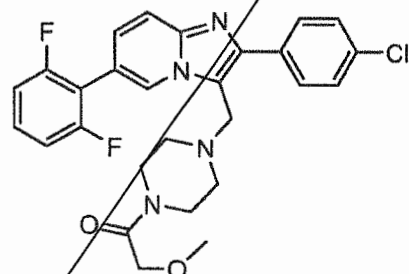
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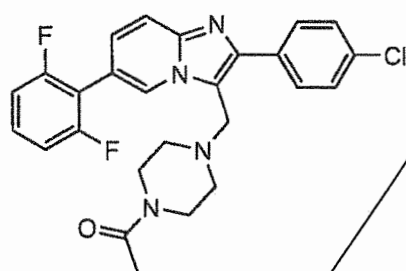
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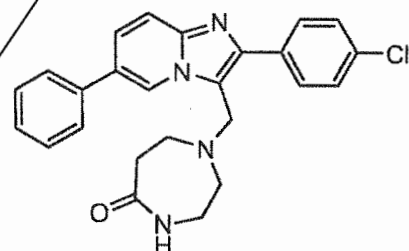
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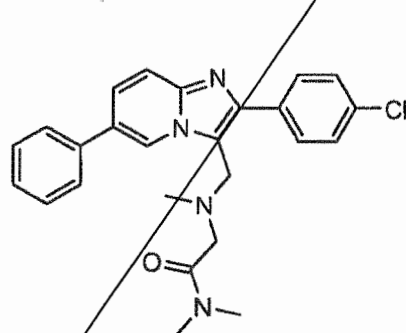
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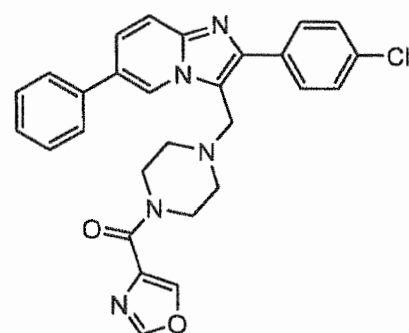
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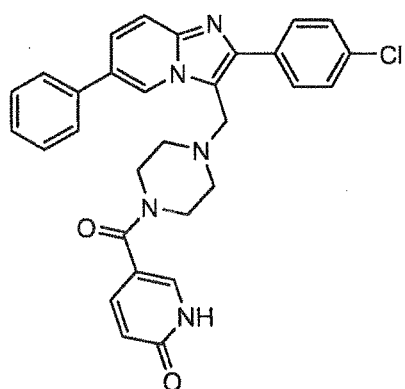


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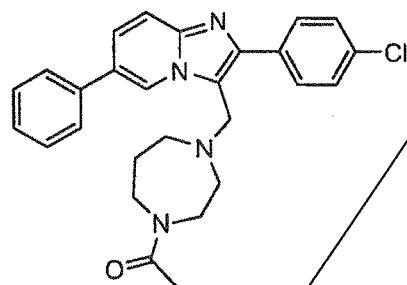


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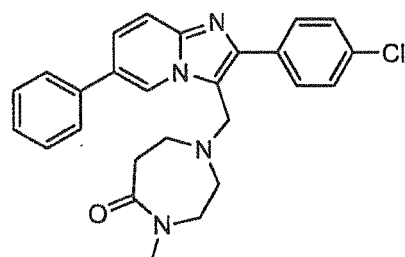
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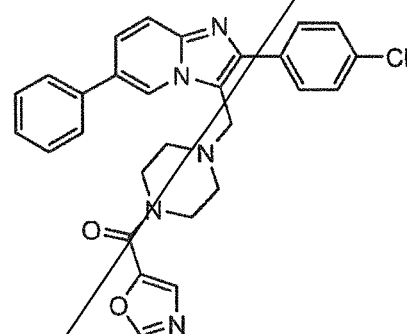
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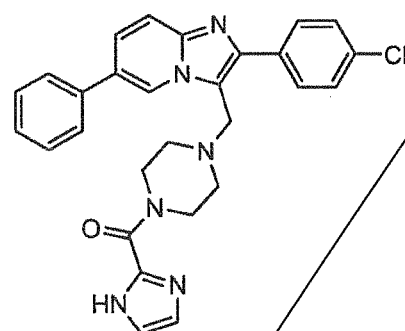
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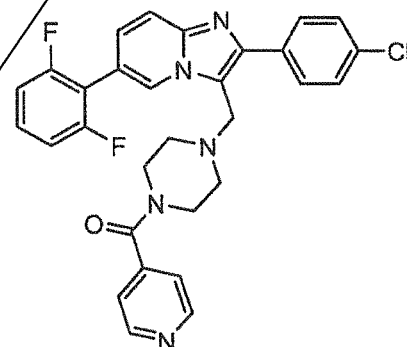
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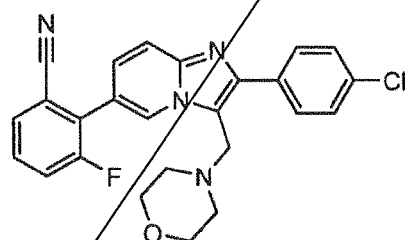
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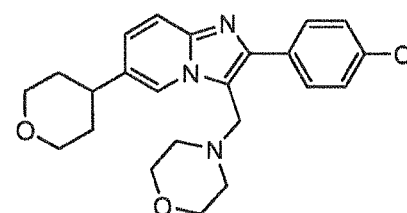
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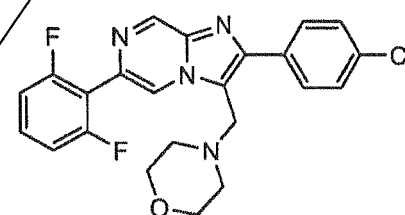
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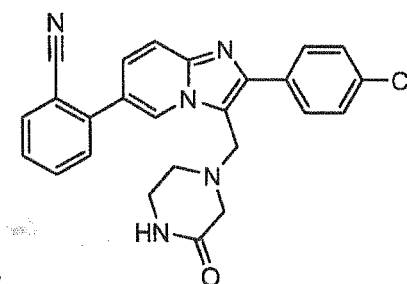
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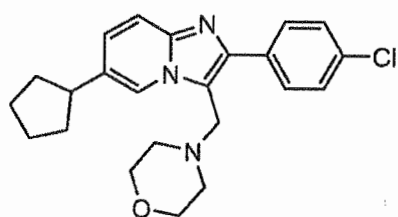


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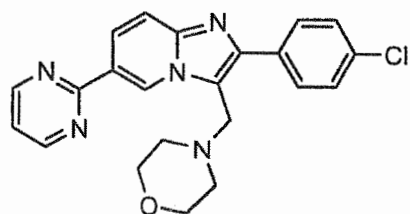


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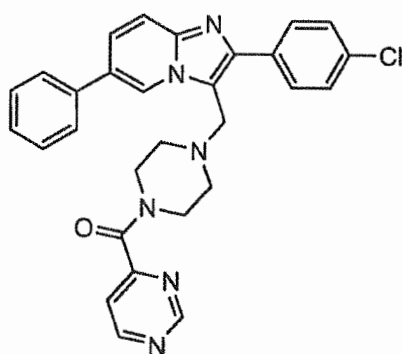
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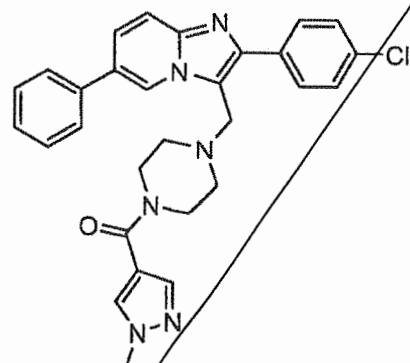
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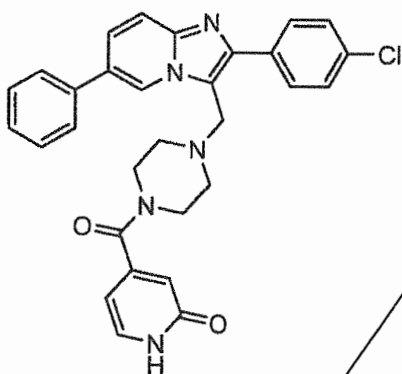
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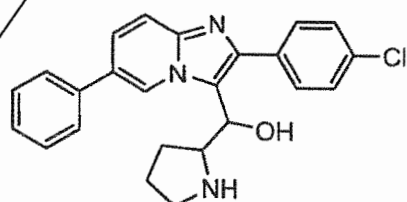
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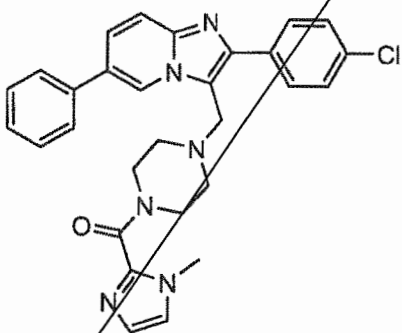
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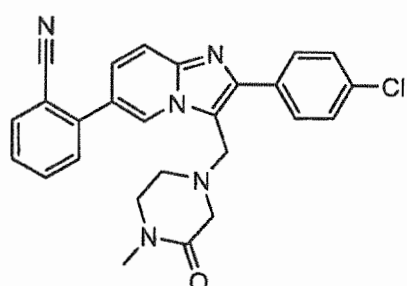
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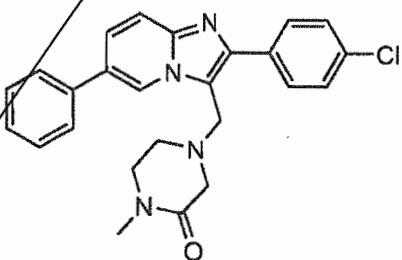
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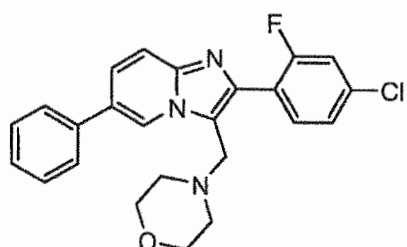
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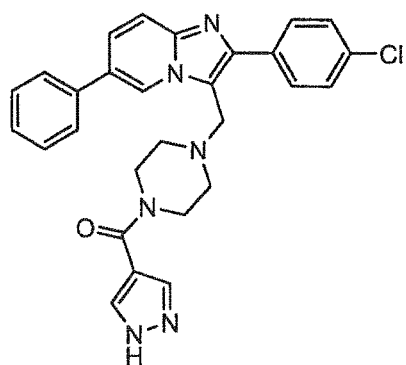


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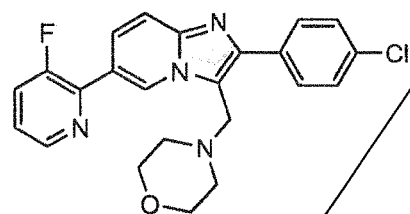


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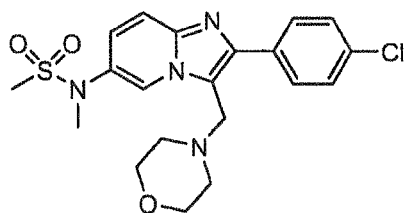
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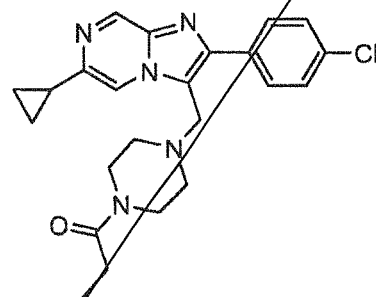
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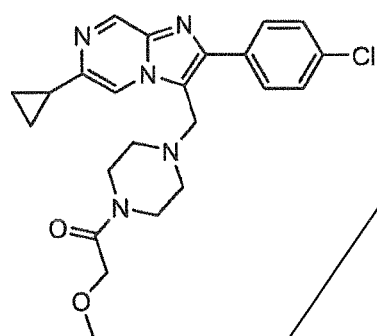
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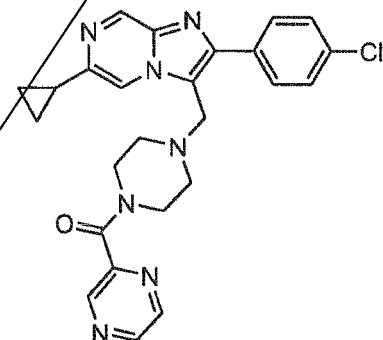
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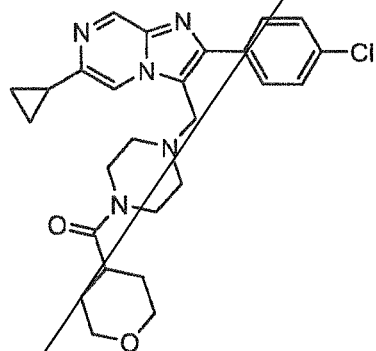
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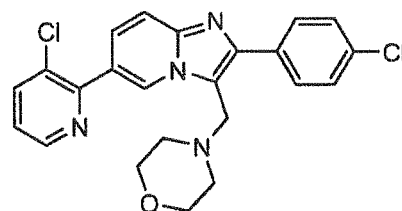
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255

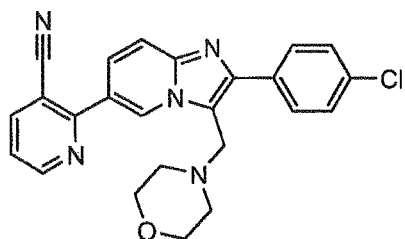


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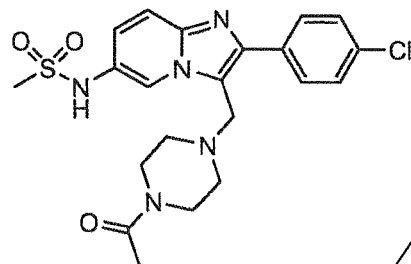


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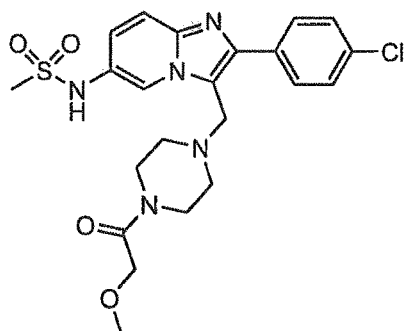
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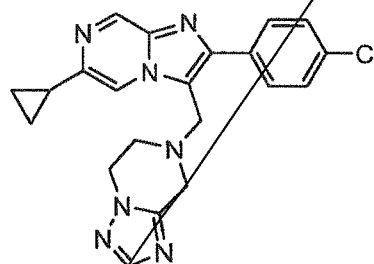
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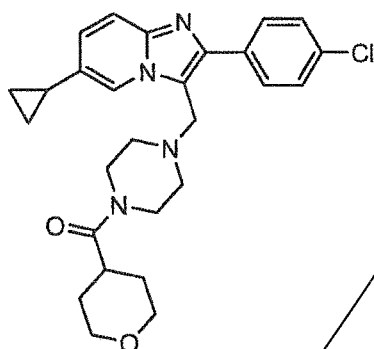
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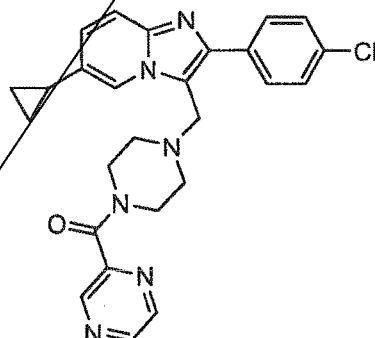
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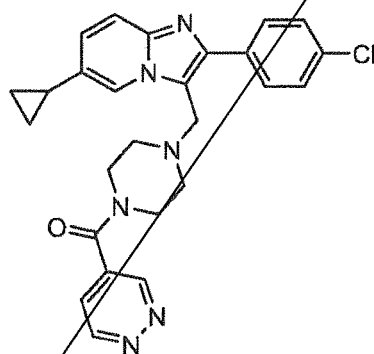
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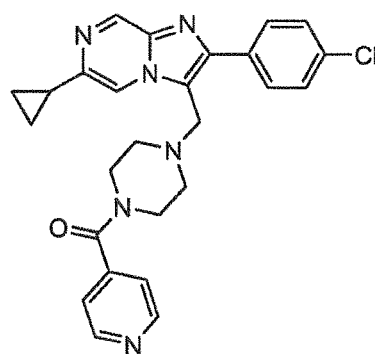
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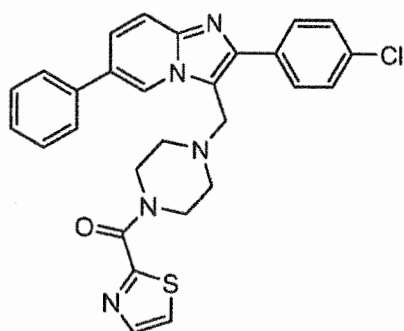


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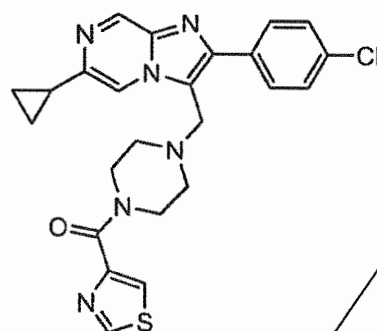


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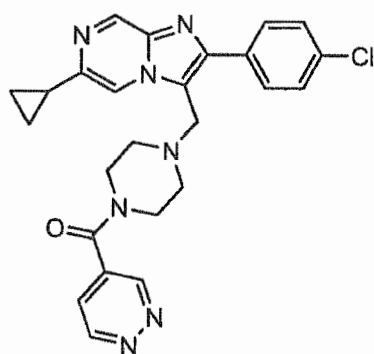
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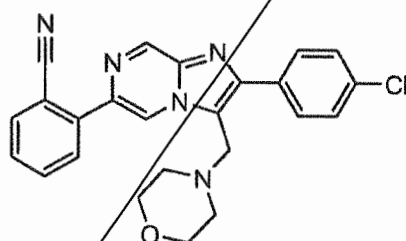
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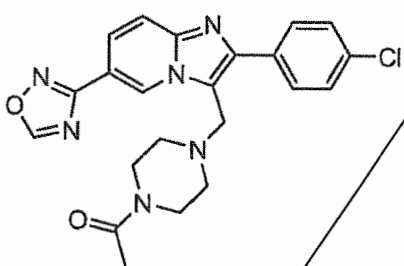
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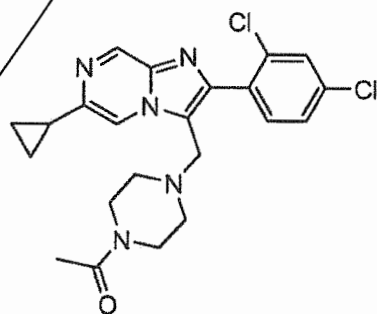
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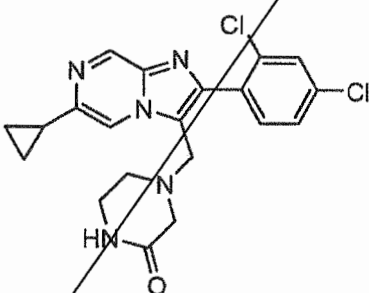
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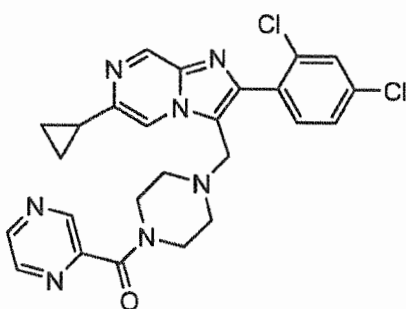
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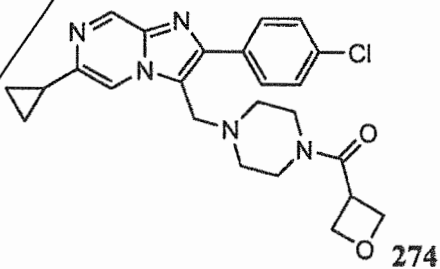
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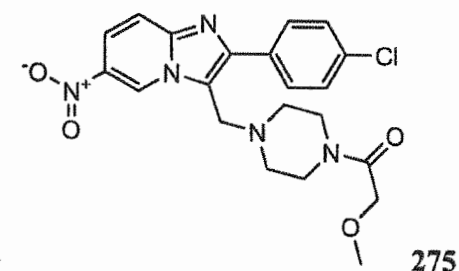
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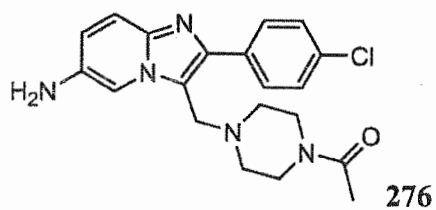
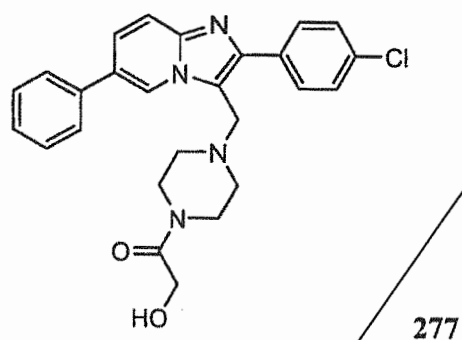
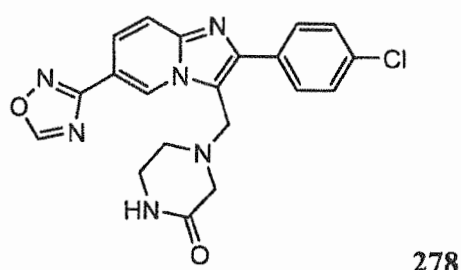
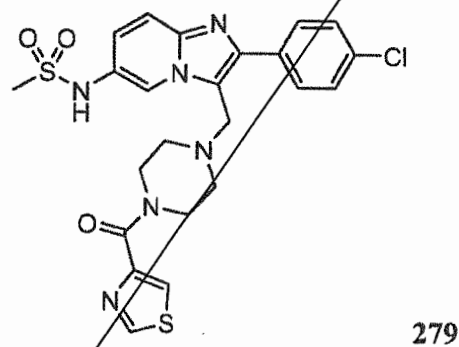
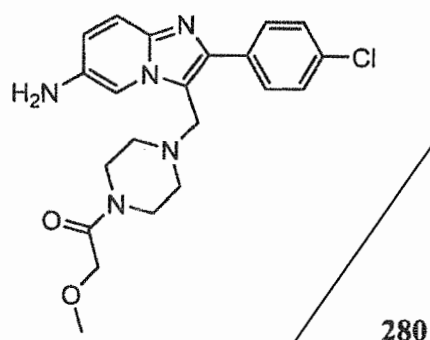
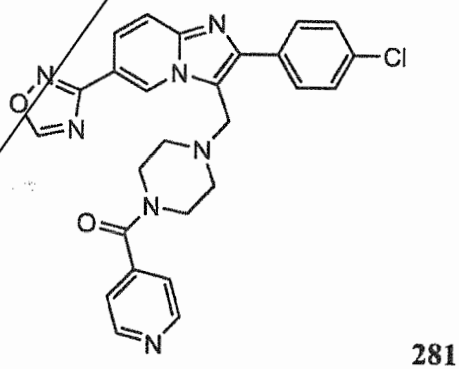
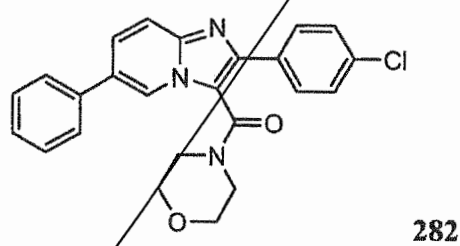
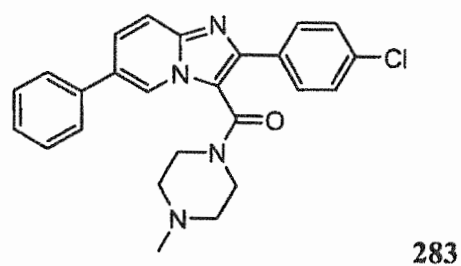
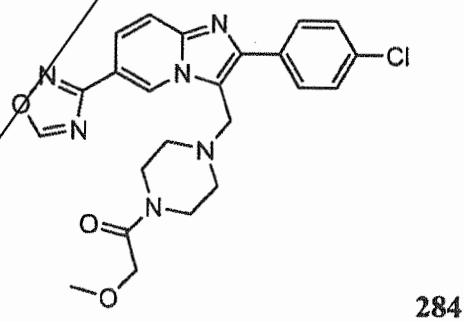
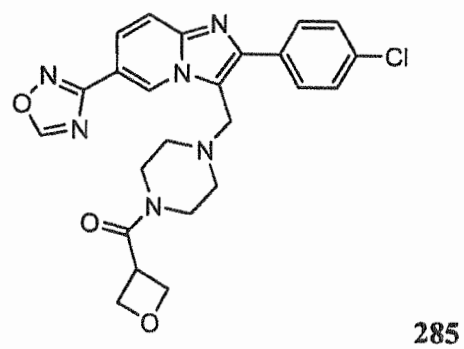


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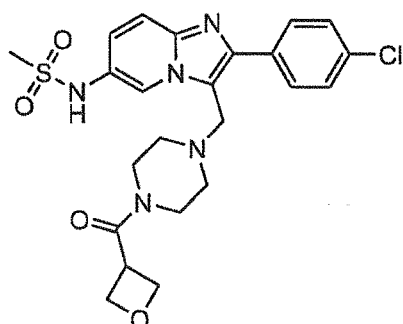


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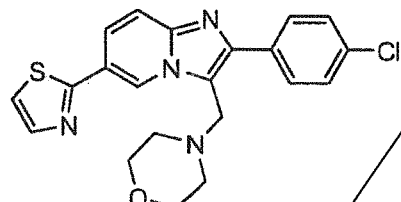
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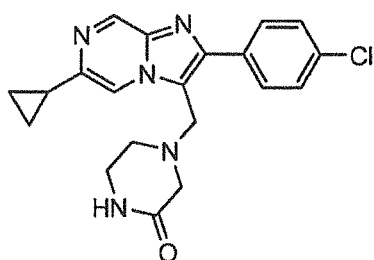
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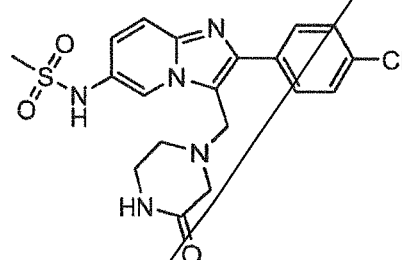
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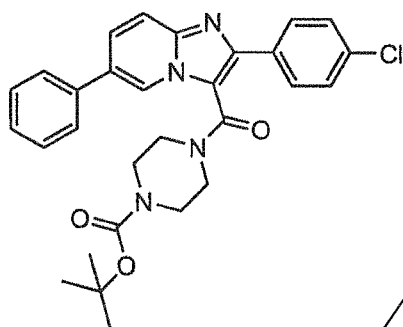
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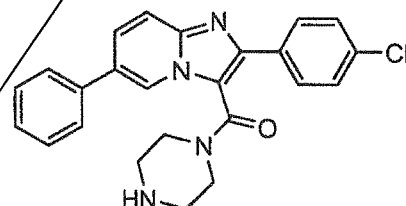
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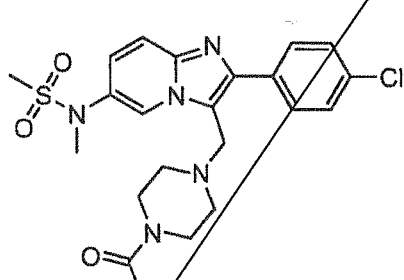
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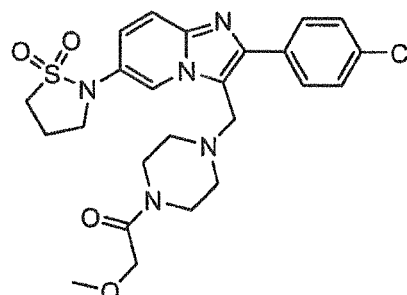
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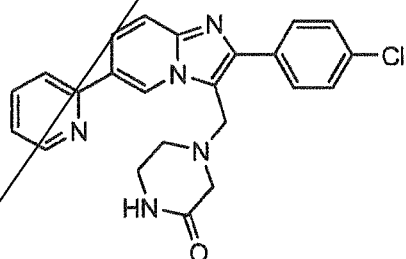
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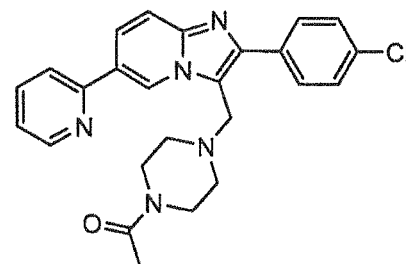
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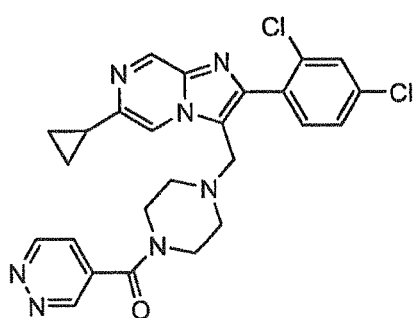


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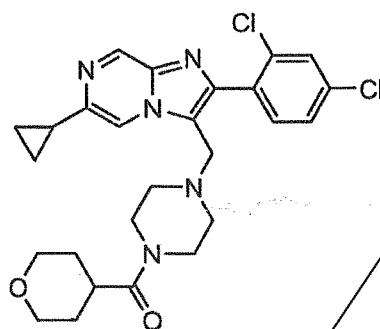


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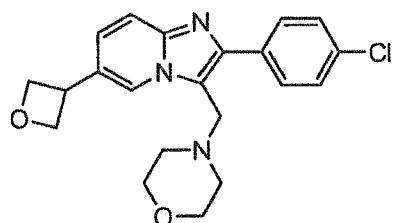
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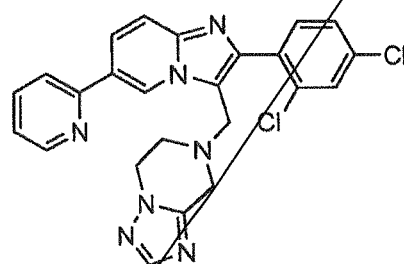
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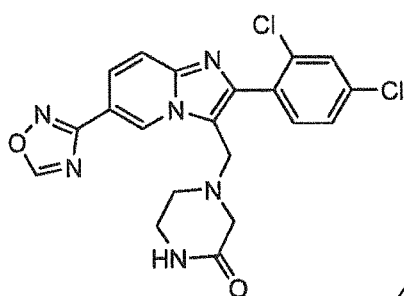
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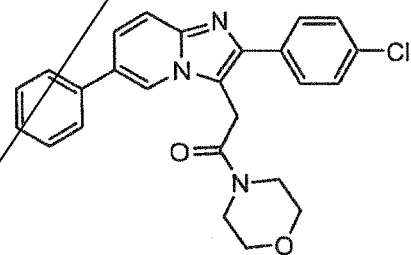
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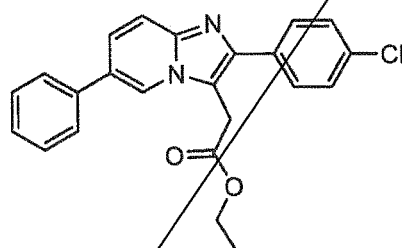
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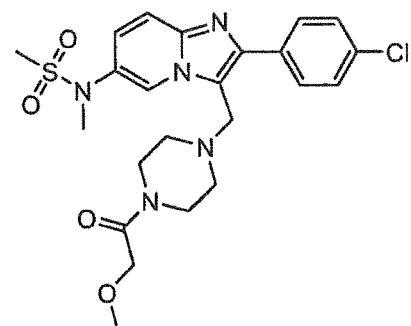
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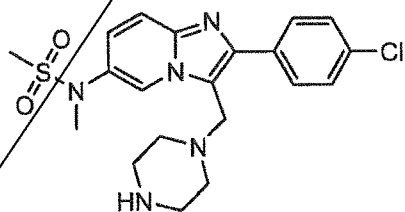
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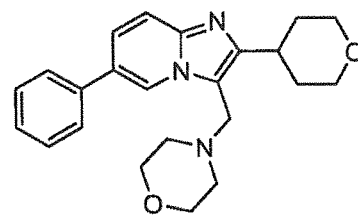
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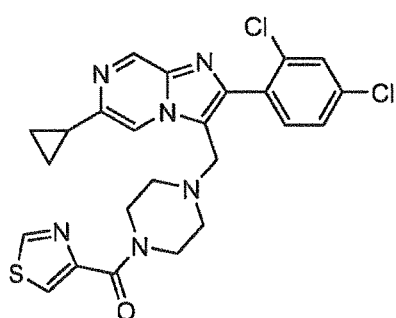
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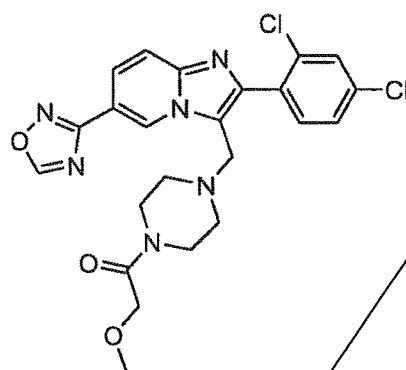
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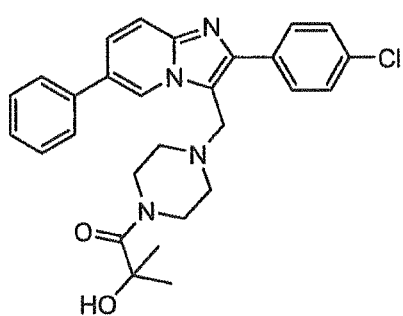
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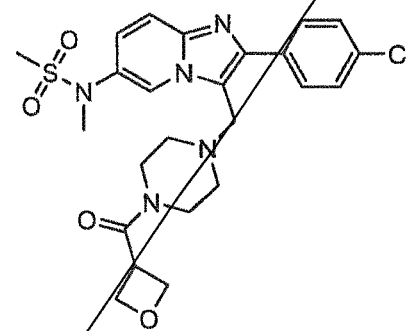
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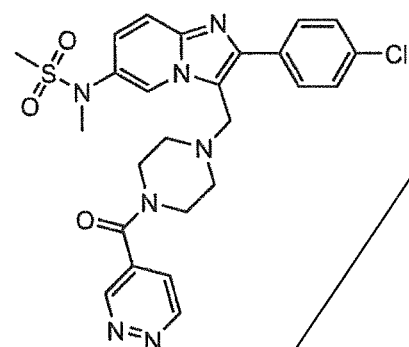
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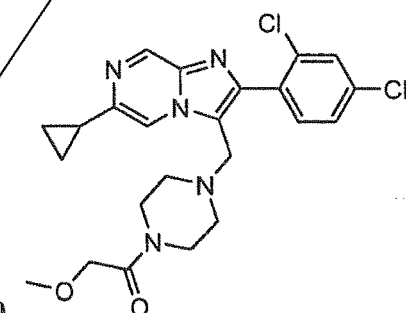
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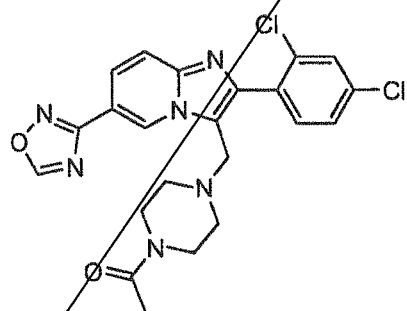
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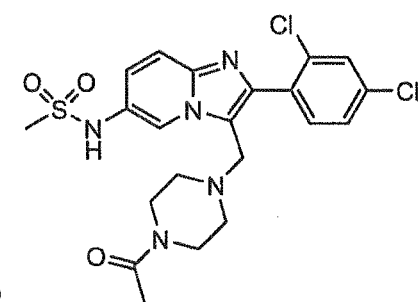
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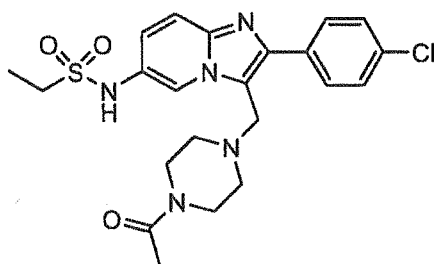


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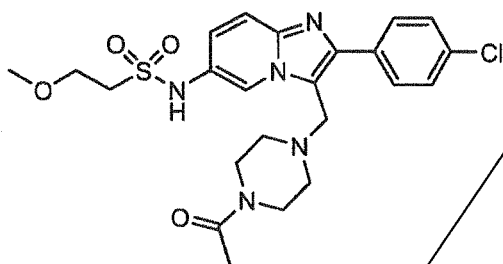


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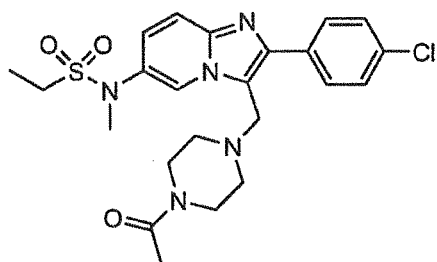
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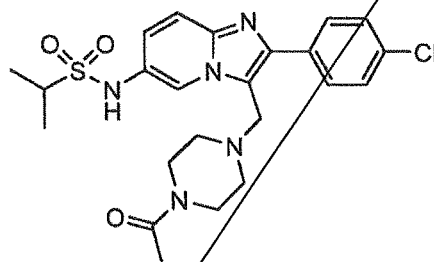
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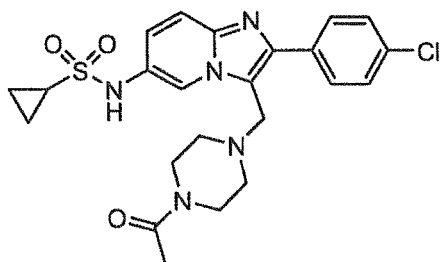
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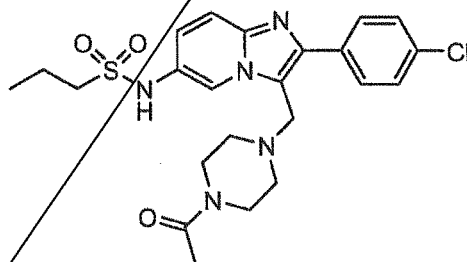
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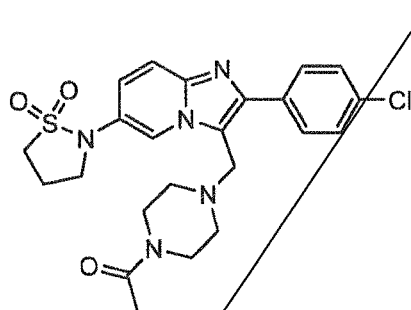
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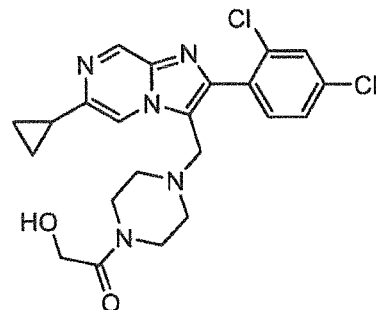
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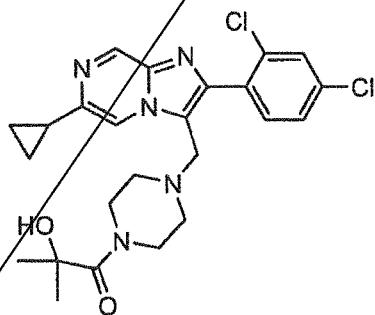
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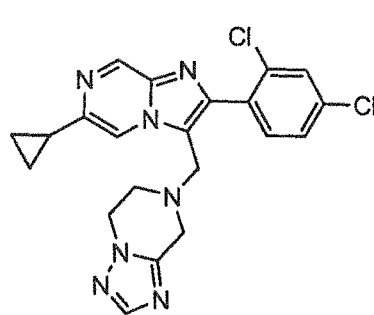
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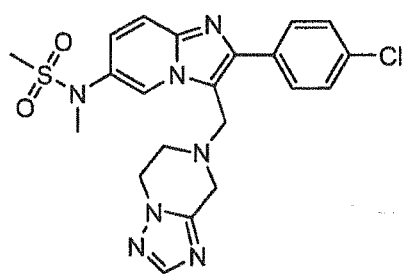


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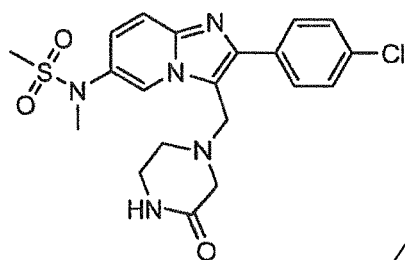


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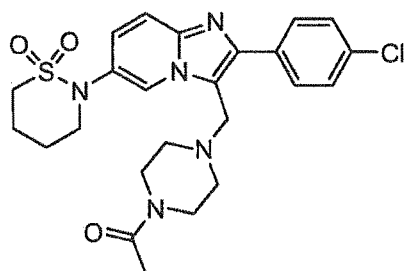
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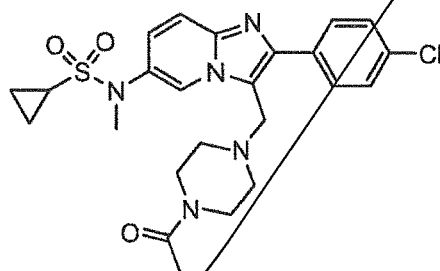
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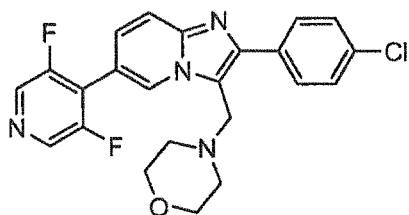
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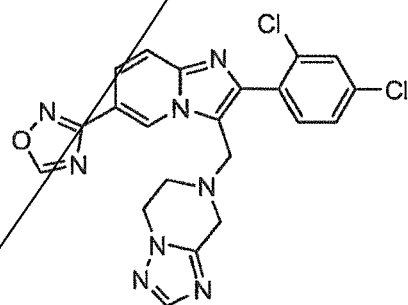
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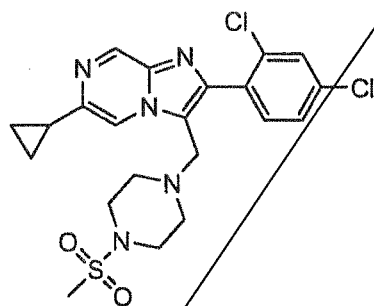
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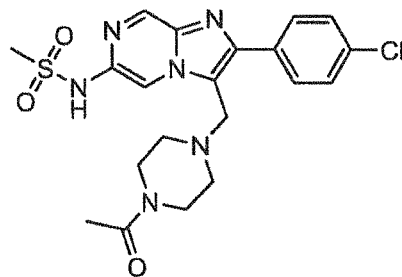
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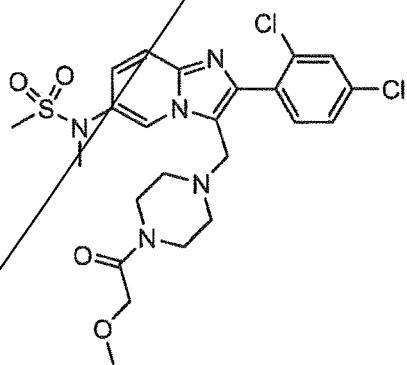
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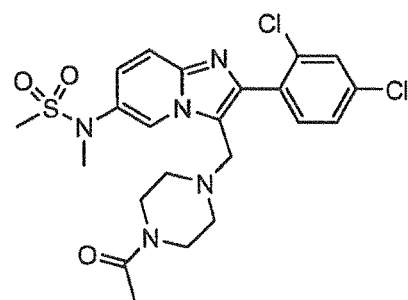
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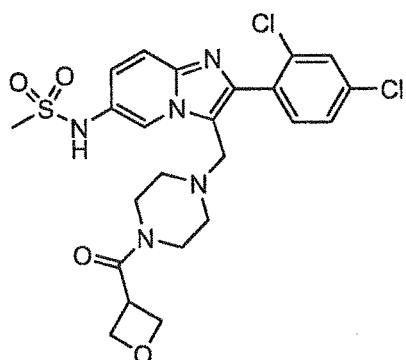


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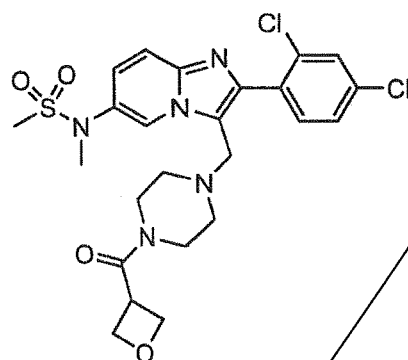


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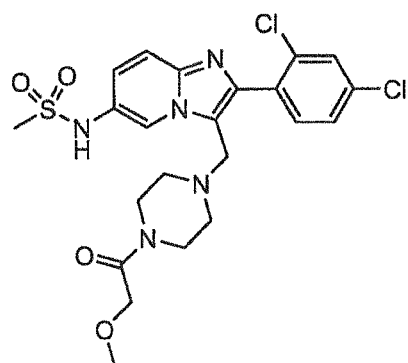
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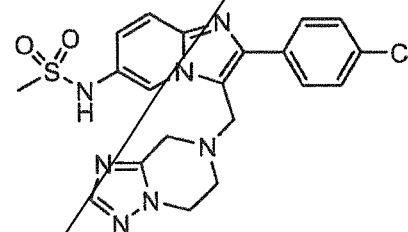
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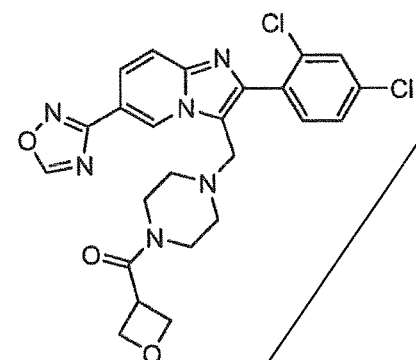
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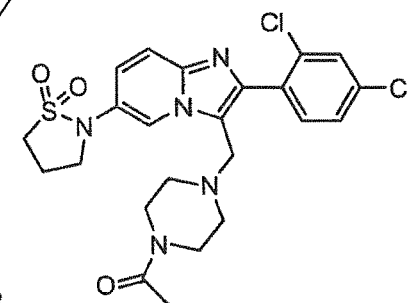
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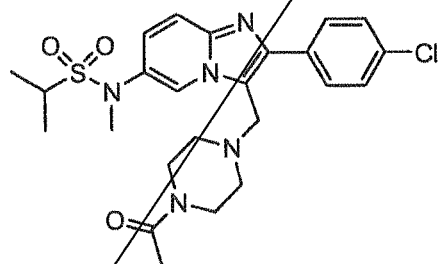
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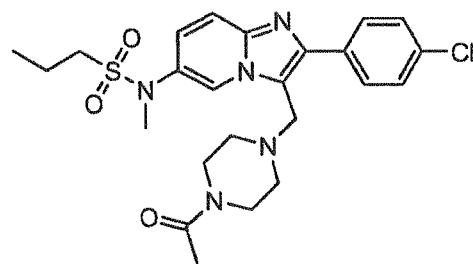
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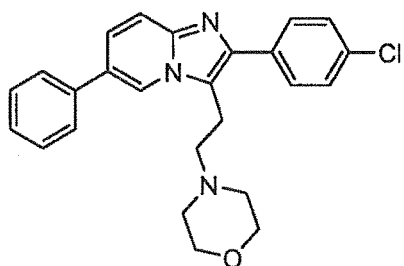


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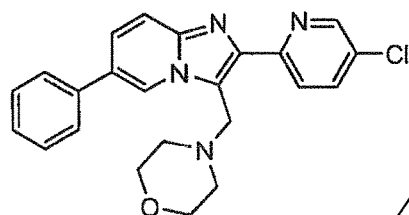


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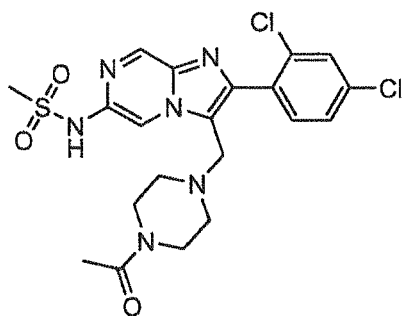
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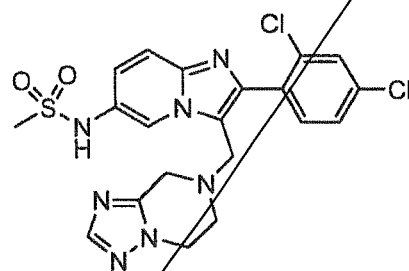
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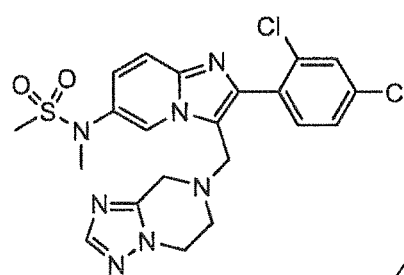
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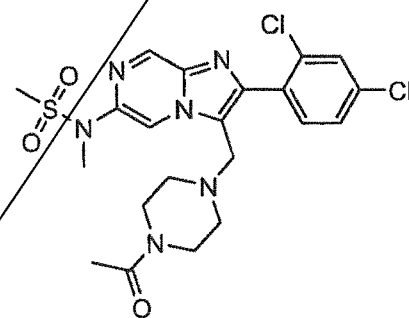
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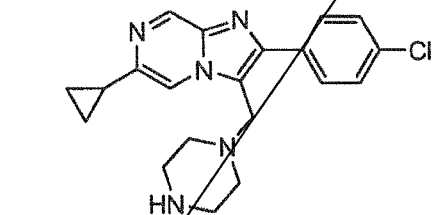
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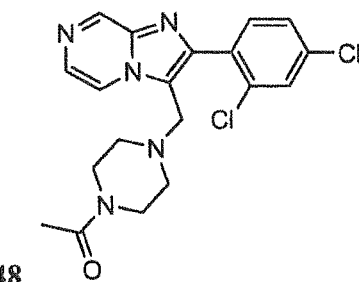
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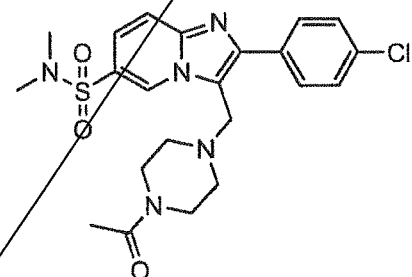
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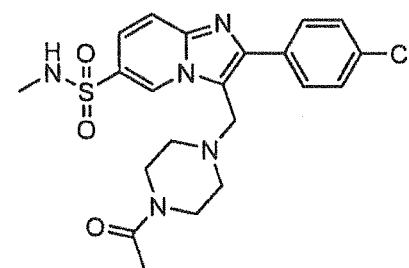
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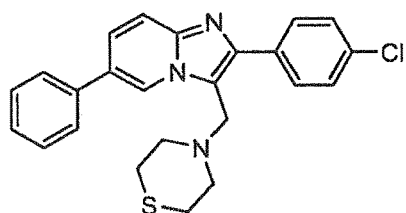


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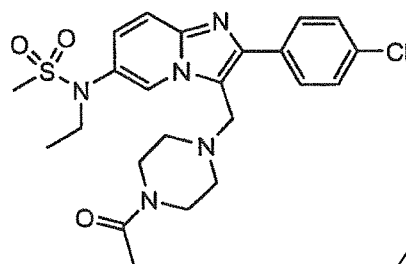


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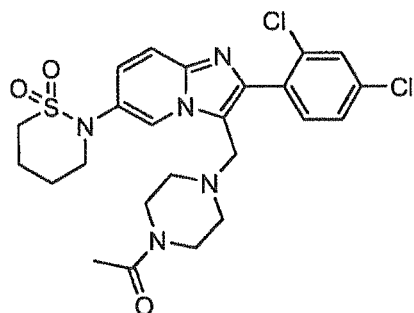
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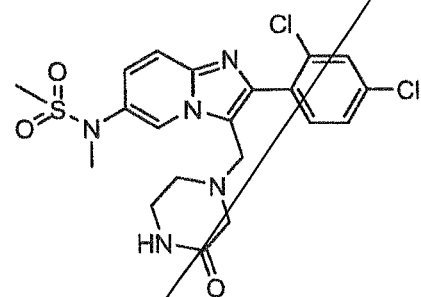
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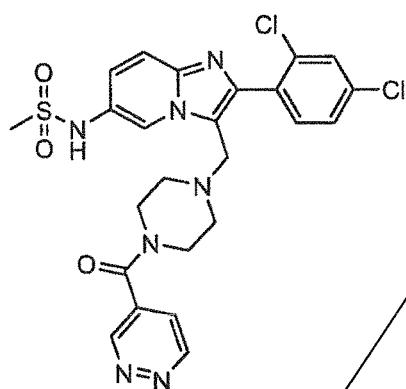
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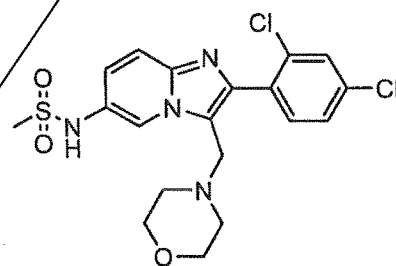
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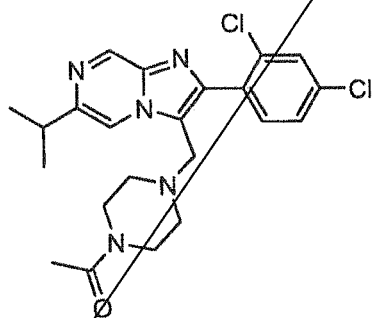
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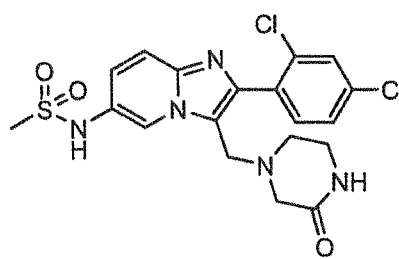
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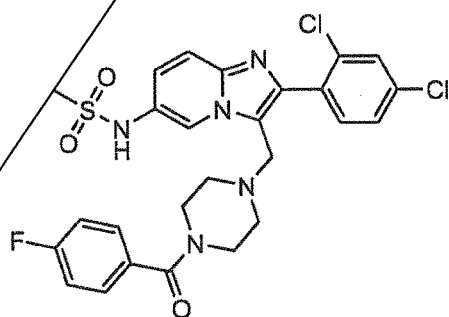
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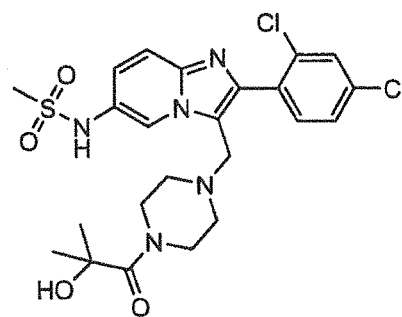
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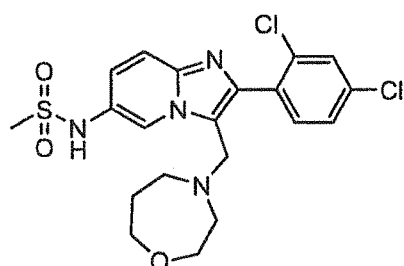


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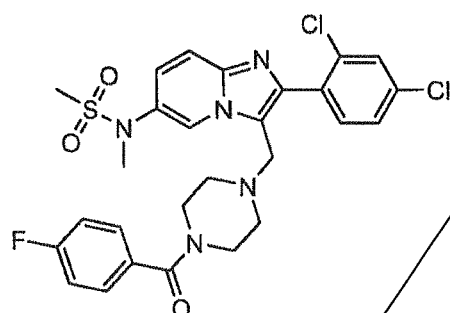


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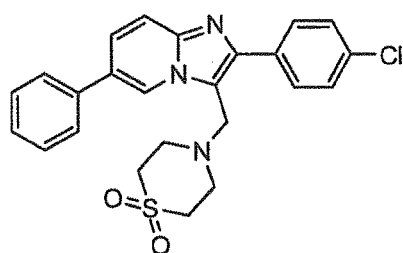
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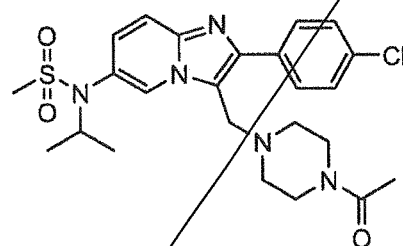
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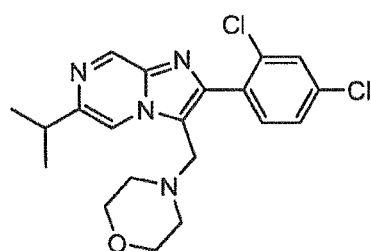
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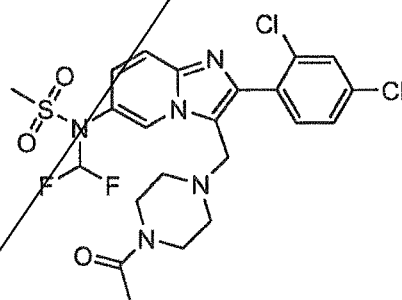
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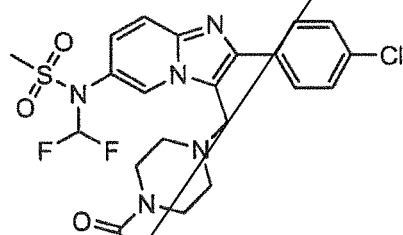
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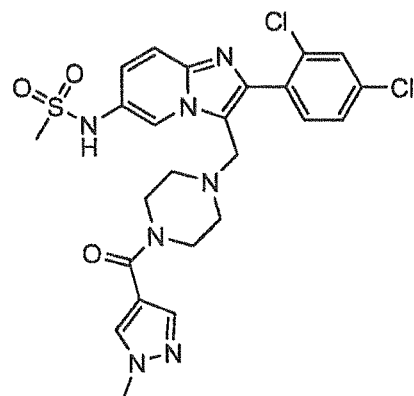
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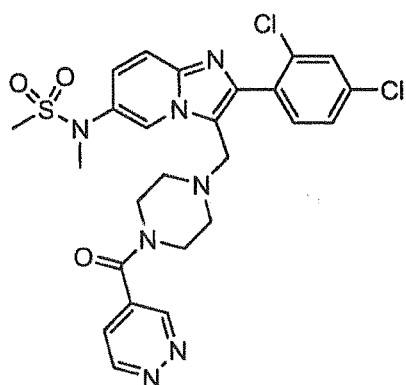
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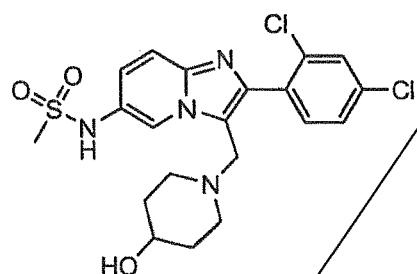
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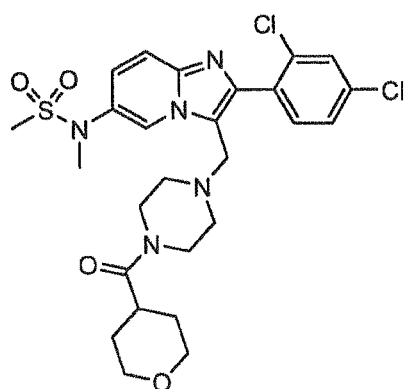
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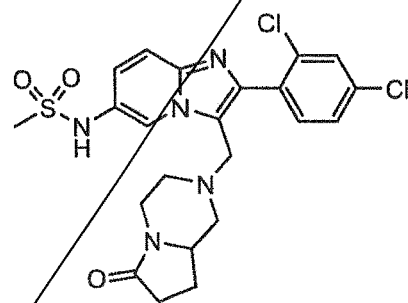
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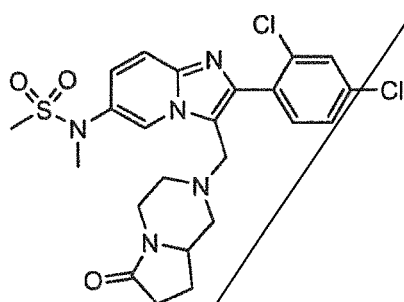
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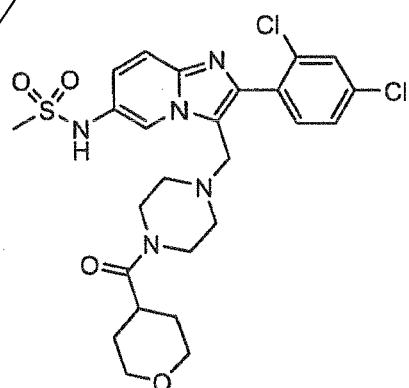
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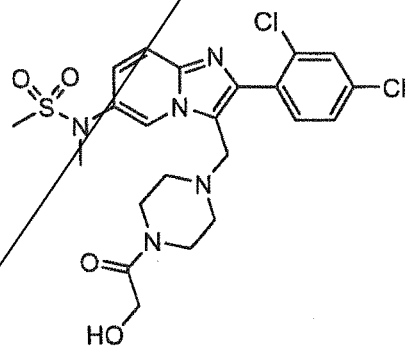
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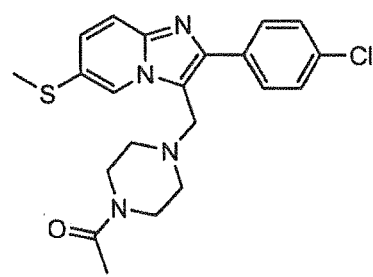
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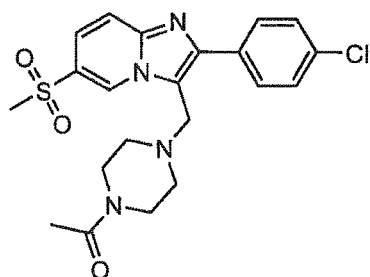


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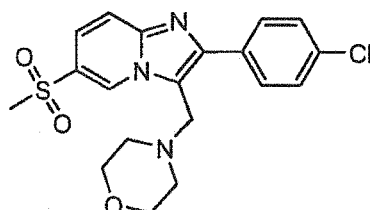


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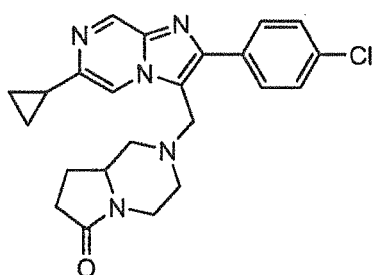
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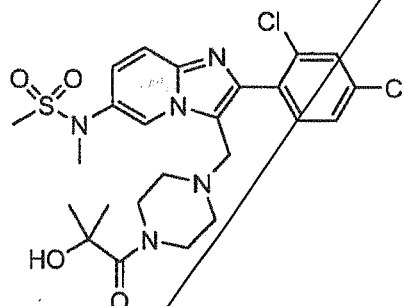
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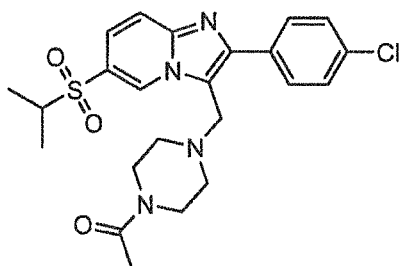
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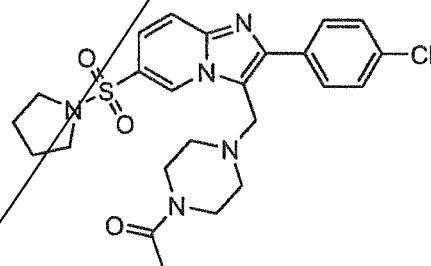
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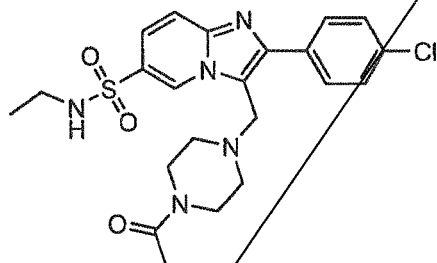
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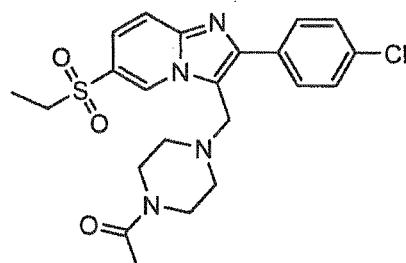
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18. A compound for use according to any preceding claim, which compound comprises:
- an isolated enantiomer, or
 - a mixture of two or more enantiomers, or
 - a mixture of two or more diastereomers, and/or epimers, or
 - a racemic mixture.

19. A compound for use in treating a cancer, an inflammatory condition, an autoimmune condition, a neurological condition, a proliferative disorder, and/or a metabolic condition, which compound is a compound as defined in any preceding claim.
20. A compound for use according to claim 19, wherein the cancer is a cancer selected from a solid or liquid tumour and a cancer wherein basal glucose transport is up-regulated, including cancer of the eye, brain (such as gliomas, glioblastomas, medullablastomas, craniopharyngioma, ependymoma, and astrocytoma), spinal cord, kidney, mouth, lip, throat, oral cavity, nasal cavity, small intestine, colon, parathyroid gland, gall bladder, head and neck, breast, bone, bile duct, cervix, heart, hypopharyngeal gland, lung, bronchus, liver, skin, ureter, urethra, testicles, vagina, anus, laryngeal gland, ovary, thyroid, oesophagus, nasopharyngeal gland, pituitary gland, salivary gland, prostate, pancreas, adrenal glands; an endometrial cancer, oral cancer, melanoma, neuroblastoma, gastric cancer, an angiomas, a hemangioblastoma, a pheochromocytoma, a pancreatic cyst, a renal cell carcinoma, Wilms' tumour, squamous cell carcinoma, sarcoma, osteosarcoma, Kaposi sarcoma, rhabdomyosarcoma, hepatocellular carcinoma, PTEN Hamartoma-Tumor Syndromes (PHTS) (such as Lhermitte-Duclos disease, Cowden syndrome, Proteus syndrome, and Proteus-like syndrome), leukaemias and lymphomas (such as acute lymphoblastic leukaemia, chronic lymphocytic leukaemia, acute myelogenous leukaemia, chronic myelogenous leukaemia, hairy cell leukaemia, T-cell prolymphocytic leukemia (T-PLL), large granular lymphocytic leukemia, adult T-cell leukemia, juvenile myelomonocytic leukaemia, Hodgkin lymphoma, non-Hodgkin lymphoma, mantle lymphoma, follicular lymphoma, primary effusion lymphoma, AIDS-related lymphoma, Hodgkin lymphoma, diffuse B cell lymphoma, Burkitt lymphoma, and cutaneous T-cell lymphoma).
21. A compound for use according to claim 19, wherein the inflammatory condition and/or the autoimmune condition are conditions relating to immune B cell and/or T cell dysregulation including aberrant activation.
22. A compound for use according to claim 21, wherein the condition relating to immune B cell and/or T cell dysregulation is selected from an inflammatory or autoimmune condition selected from gout, idiopathic pulmonary fibrosis, liver fibrosis, liver cirrhosis, polycystic

kidney disease, allergic asthma, acute or chronic idiopathic inflammatory arthritis, osteoarthritis, rheumatoid arthritis, psoriasis, chronic dermatosis, myositis, a demyelinating disease, chronic obstructive pulmonary disease, interstitial lung disease, glomerulonephritis, interstitial nephritis, chronic infectious disease (such as chronic active hepatitis), Crohn's disease, ulcerative colitis, plaque formation in atherosclerosis, a degenerative disease of the joints or nervous system, multiple sclerosis, type I and type II diabetes, celiac disease, acute kidney injury, sepsis, acute liver failure, chronic liver failure, chronic kidney failure, pancreatitis, Grave's disease, psoriasis, septicemia, cystic fibrosis, meningitis and acute respiratory distress syndrome, ankylosing spondylitis, Chagas disease, dermatomyositis, endometriosis, Goodpasture's syndrome, Guillain-Barré syndrome, Hashimoto's disease, hidradenitis suppurativa, Kawasaki disease, idiopathic thrombocytopenic purpura, lupus (such as systemic lupus erythematosus, discoid lupus, drug-induced lupus, neonatal lupus, and subacute cutaneous lupus), neuromyotonia, pemphigus vulgaris, pernicious anemia, psoriasis, polymyositis, relapsing polychondritis, scleroderma, Sjögren's syndrome, stiff person syndrome, temporal arteritis (also known as giant cell arteritis), vasculitis, vitiligo, Wegener's granulomatosis, organ transplant rejection, uveoretinitis, glomerulonephritis, allergic reaction, fibromyalgia, multiple endocrine failure, Schmidt's syndrome, autoimmune uveitis, Addison's disease, adrenalitis, thyroiditis, autoimmune thyroid disease, gastric atrophy, chronic hepatitis, lupoid hepatitis, atherosclerosis, hypoparathyroidism, Dressler's syndrome, autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura, hemolytic anemia, atopic dermatitis, dermatitis herpetiformis, alopecia arcata, pemphigoid, progressive systemic sclerosis, CREST syndrome (calcinosis, Raynaud's phenomenon, esophageal dysmotility, and sclerodactyl), polyarteritis nodosa, atopic rhinitis, sarcoidosis, rheumatic fever, erythema multiforme, Cushing's syndrome, toxic epidermal necrolysis, alveolitis, allergic alveolitis, fibrosing alveolitis, interstitial lung disease, Takayasu's arteritis, polymyalgia rheumatica, schistosomiasis, ascariasis, aspergillosis, Sampter's syndrome, lymphomatoid granulomatosis, Caplan's syndrome, dengue, encephalomyelitis, endocarditis, endomyocardial fibrosis, endophthalmitis, erythema elevatum et diutinum, erythroblastosis fetalis, eosinophilic fasciitis, Shulman's syndrome, Felty's syndrome, filariasis, cyclitis, chronic cyclitis, heterochronic cyclitis, Fuch's cyclitis, Henoch-Schonlein purpura, Eaton-Lambert syndrome, cryoglobulinemia, Waldenstrom's macroglobulemia, and Evan's syndrome.

23. A compound for use according to claim 19, wherein the proliferative disorder is a proliferative disorder selected from diseases of benign, pre-malignant, and malignant cellular proliferation, including neoplasms and tumours (such as histiocytoma, glioma, astrocyoma, and osteoma), cancers, leukemias, psoriasis, bone diseases, fibroproliferative disorders (such as those of connective tissues), idiopathic pulmonary fibrosis, polycystic kidney disease, renal cyst formation, intimal hyperplasia, chronic liver disease, liver fibrosis, liver cirrhosis, scleroderma, restenosis and atherosclerosis.

24. A compound for use according to claim 19, wherein the neurological condition is a neurological condition selected from epilepsy, schizophrenia, Alzheimer's disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis (Lou Gehrig's Disease), frontotemporal dementia, Lewy body dementia, vascular dementia, progressive supranuclear palsy, corticobasal degeneration and multiple system atrophy.

25. A compound for use according to claim 19, wherein the metabolic condition is a metabolic condition selected from metabolic syndrome, obesity, diabetes (such as diabetes type I, diabetes type II, MODY, and gestational diabetes), pre-diabetes, lipodystrophy, impaired glucose tolerance, elevated plasma insulin concentrations, insulin resistance, dyslipidemia, hyperglycemia, hyperlipidemia, hypertriglyceridemia, hypertension, cardiovascular disease or respiratory conditions. hyperphagia, hypophagia, triglyceride storage disease, Bardet-Biedl syndrome, Lawrence-Moon syndrome, Prader-Labhart- Willi syndrome, Kearns-Sayre syndrome, medium chain acyl-CoA dehydrogenase deficiency and cachexia.

26. A pharmaceutical composition comprising a compound as defined in any of claims 1-18.

27. A pharmaceutical composition according to claim 26, further comprising a pharmaceutically acceptable additive and/or excipient.

28. A pharmaceutical composition according to claim 26 or claim 27, which composition is for treating a cancer, a condition or a disorder as defined in any of claims 19-24.

29. A pharmaceutical composition according to claim 28 for treating a cancer, further comprising a further agent for treating cancer; preferably wherein the further agent for treating cancer is selected from anti-microtubule agents, platinum coordination complexes, alkylating agents, antibiotic agents, topoisomerase II inhibitors, antimetabolites, topoisomerase I inhibitors, hormones and hormone analogues, signal transduction pathway inhibitors, non-receptor tyrosine kinase angiogenesis inhibitors, immunotherapeutic agents, proapoptotic agents, respiratory chain un-couplers such as metformin, and cell cycle signalling inhibitors.

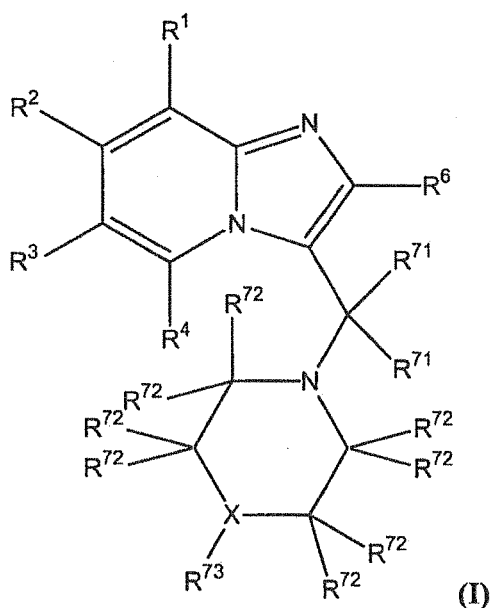
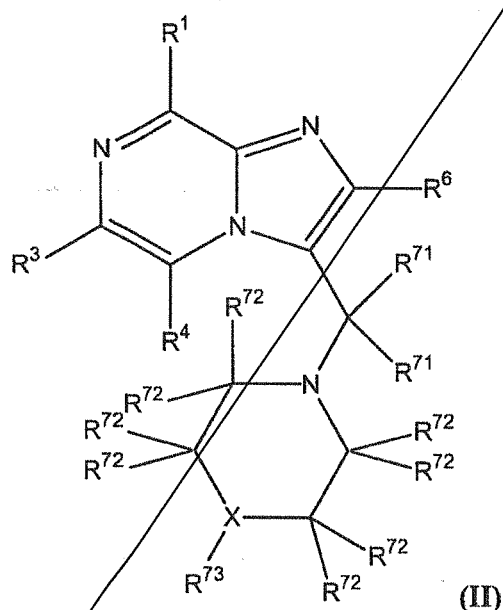
30. A method of treating a cancer and/or a condition and/or a disorder, which method comprises administering to a patient a compound or a composition as defined in any preceding claim.

31. A method according to claim 30, wherein the cancer or condition or disorder is a cancer or condition or disorder as defined in any of claims 19-25.

32. A method according to claim 31 for treating a cancer, which method comprises administering to a patient a compound or a composition as defined in any of claims 1-28 and a further agent for treating cancer as defined in claim 29; preferably wherein the compound or composition and the further agent are administered simultaneously, sequentially or separately.

33. A method according to any of claims 30-32, wherein the patient is human.

34. A compound, which compound comprises a formula selected from one of the following:



wherein in (I) the substituents may be selected from one of the following groups (i)-(vi):

(i) R^3 is selected from a substituted or unsubstituted saturated carbocyclic ring having from 3 to 7 ring carbons; and a substituted or unsubstituted aromatic ring having from 3 to 7 ring carbons provided that it is not a 4-methylphenyl group; R^6 is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; X is N; R^{73} is a $-(CO)-R^{75}$ group; and wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{75} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{75} are as defined in any preceding claim;

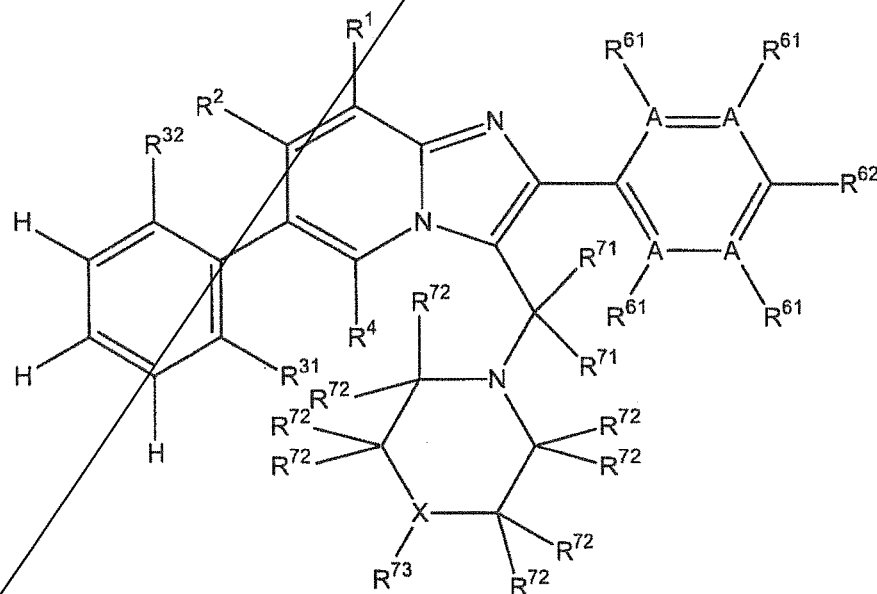
(ii) R^3 is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; R^6 is a substituted or unsubstituted saturated or unsaturated heterocyclic group having from 4 to 7 ring atoms; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; and wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{73} are as defined in any preceding claim;

(iii) R^3 is a $-Z(R^{33})_2$ group in which Z can be C or N wherein a further H or substituted or unsubstituted organic group or R^{33} group may be present when Z is C; R^{33} is selected from a substituted or unsubstituted linear or branched alkyl group optionally forming

a non-aromatic carbocyclic or heterocyclic ring with another R^{33} , a substituted sulphonyl group, and a substituted carbonyl group; provided that the $-Z(R^{33})_2$ group is not $-NH_2$ or an amide bonded to the ring via a C atom; R^6 is a substituted or unsubstituted saturated or unsaturated heterocyclic group preferably having from 4 to 7 ring atoms; X is N; and wherein R^{73} is a $-(CO)-R^{75}$ group; and wherein $R^1, R^2, R^4, R^{71}, R^{72}$ and R^{75} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein $R^1, R^2, R^4, R^{71}, R^{72}$ and R^{75} are as defined in any preceding claim;

(iv) R^6 is a substituted or unsubstituted saturated homocyclic or heterocyclic group having from 3-7 ring atoms in which each ring atom is selected from C, N, O or S, provided that R^6 is not adamantyl; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; and wherein $R^1, R^2, R^3, R^4, R^{71}, R^{72}$ and R^{73} are independently selected from H and a substituted or unsubstituted organic group; preferably wherein $R^1, R^2, R^3, R^4, R^{71}, R^{72}$ and R^{73} are as defined in any preceding claim;

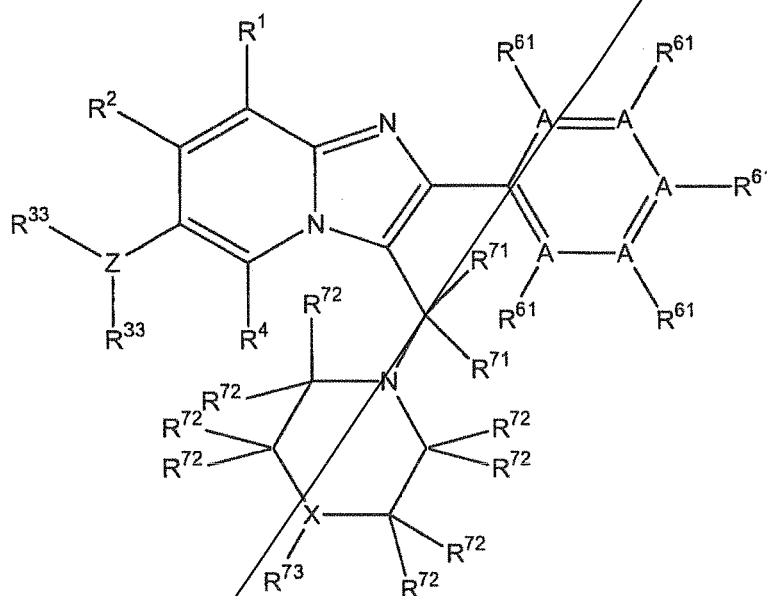
(v) groups such that the compound has a structure as follows:



wherein $R^1, R^2, R^4, R^{71}, R^{72}$ and R^{73} are independently selected from H and a substituted or unsubstituted organic group; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring;

A may independently be C or N wherein R^{61} is absent when A is N; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; R^{31} is selected from H and a substituted or unsubstituted organic group; R^{32} is selected from a substituted or unsubstituted organic group excluding H; R^{61} is selected from H and a substituted or unsubstituted organic group; and R^{62} is selected from a substituted or unsubstituted organic group excluding H and Me; and

(vi) groups such that the compound has a structure as follows:



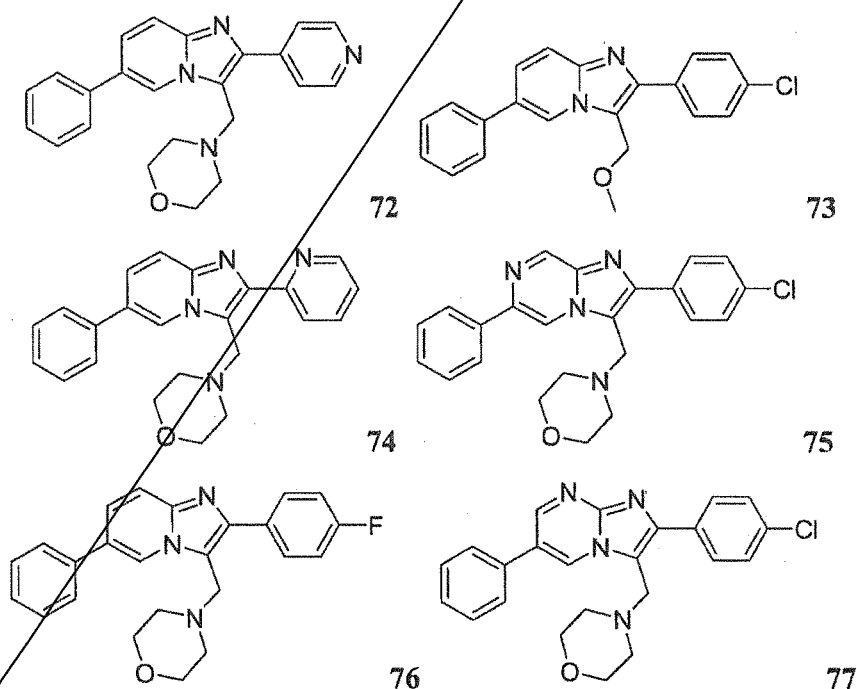
wherein R^1 , R^2 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; each A may independently be C or N wherein R^{61} is absent when A is N; X is independently selected from N, O and S wherein R^{73} is absent when its X is O or S; Z can be C or N wherein a further H or substituted or unsubstituted organic group or R^{33} group may be present when Z is C; R^{33} is selected from a substituted or unsubstituted linear or branched alkyl group optionally forming a non-aromatic carbocyclic or heterocyclic ring with another R^{33} , a substituted sulphonyl group, and a substituted carbonyl group; and R^{61} is selected from H and a substituted or unsubstituted organic group;

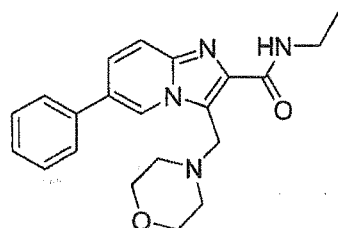
and wherein in (II) the substituents are as follows:

R^1 , R^3 , R^4 , R^{71} , R^{72} and R^{73} are independently selected from H and a substituted or unsubstituted organic group, provided that R^3 is not Me; adjacent R groups may together form a substituted or unsubstituted saturated or unsaturated aliphatic or aromatic homocyclic or heterocyclic ring; X is independently selected from N, O and S wherein R^{72} is absent when its X is O or S; and R^6 is selected from H and a substituted or unsubstituted organic group except CO_2H and CO_2Et ; preferably wherein R^1 , R^3 , R^4 , R^{71} , R^{72} and R^{73} are as defined in any preceding claim.

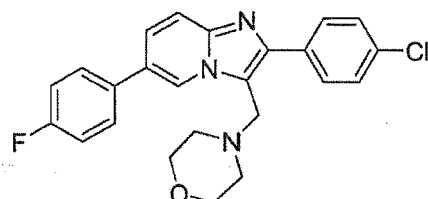
35. A compound according to claim 34, which compound is a compound wherein R^1 , R^2 , R^3 , R^4 , R^6 , R^{71} , R^{72} , R^{73} and R^{75} are as defined in any of claims 11-16.

36. A compound, which is a compound of any of the following formulae:

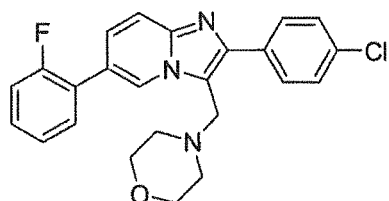




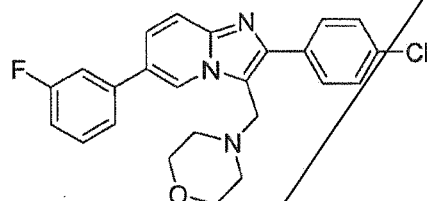
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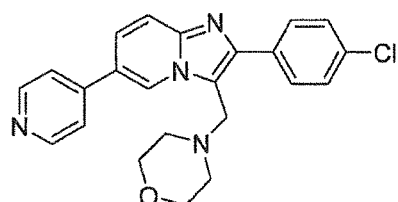
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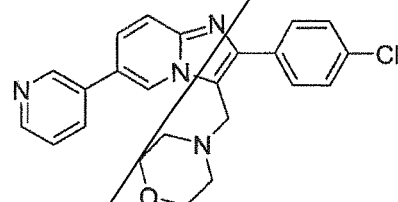
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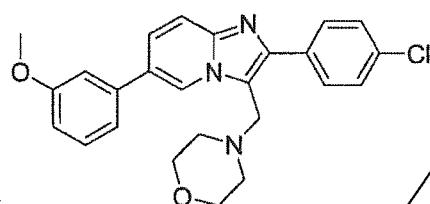
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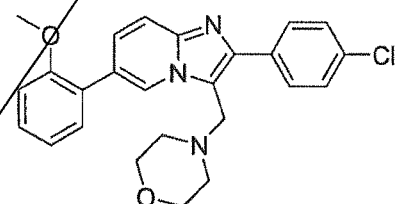
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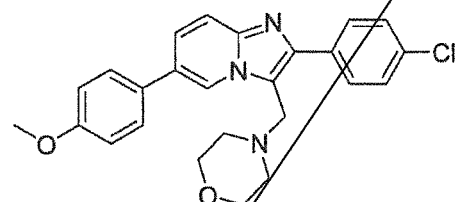
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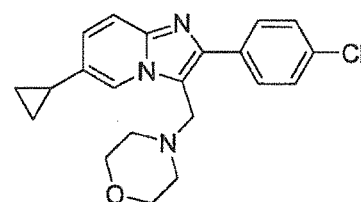
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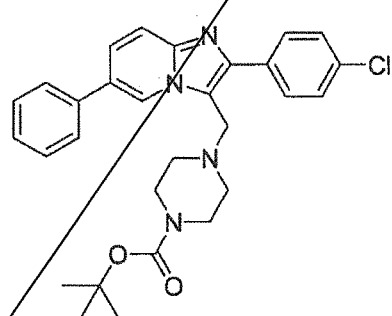
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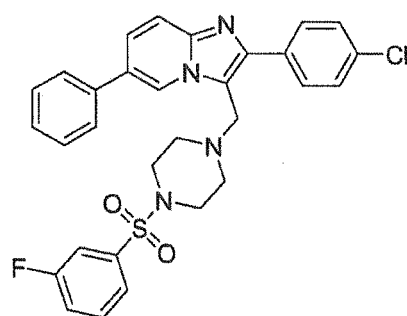
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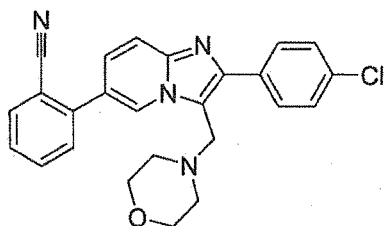
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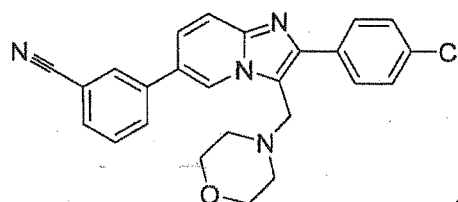
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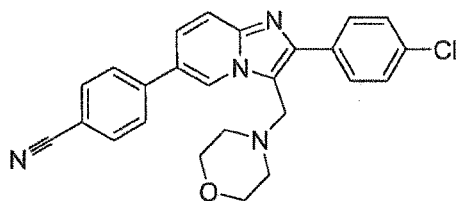
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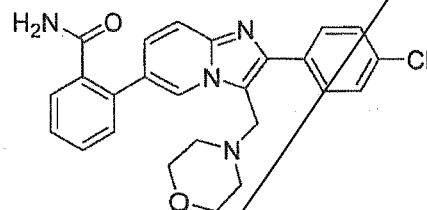
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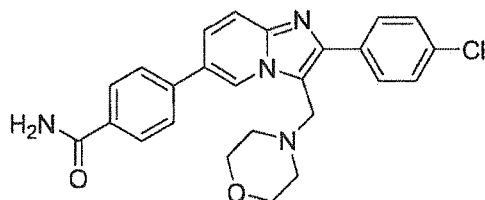
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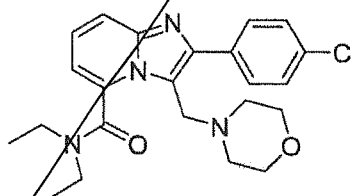
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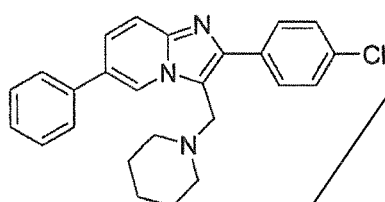
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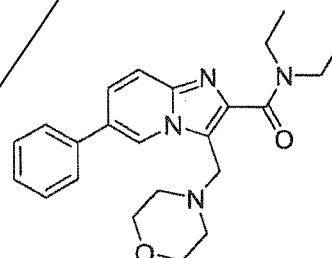
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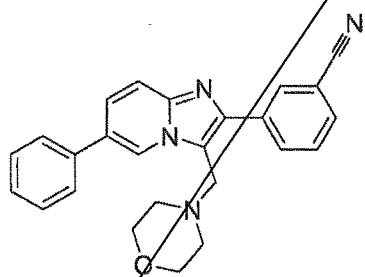
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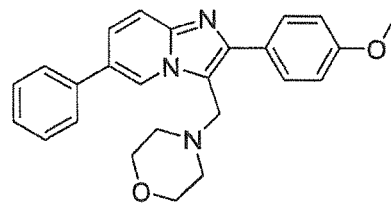
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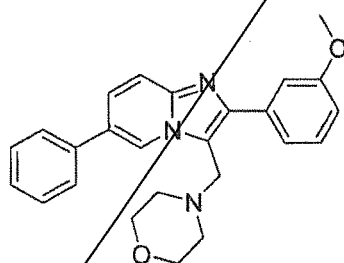
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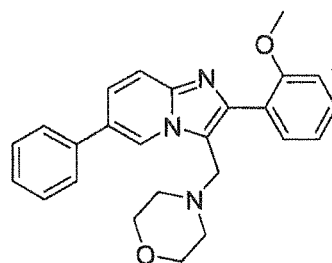
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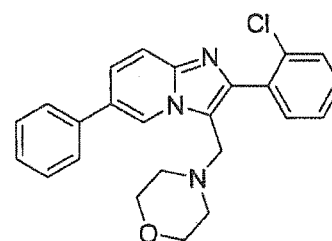
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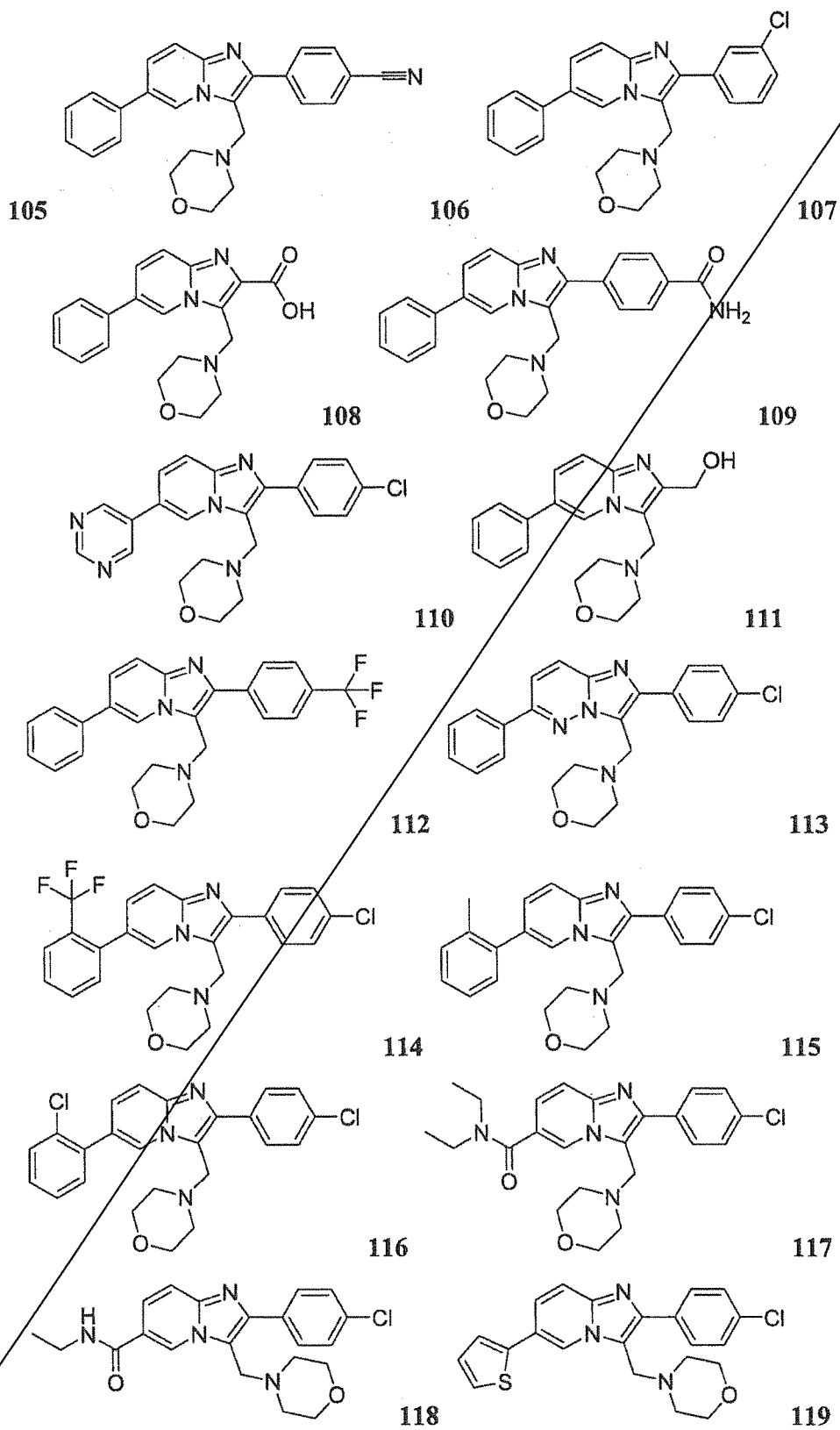
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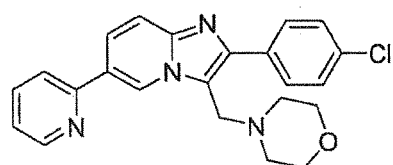
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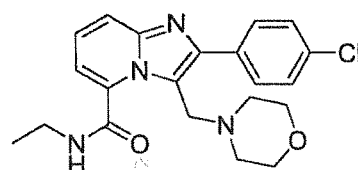
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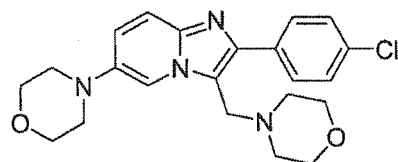
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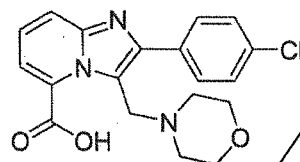
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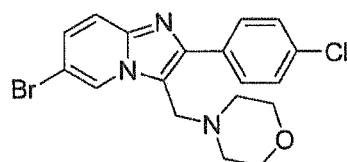
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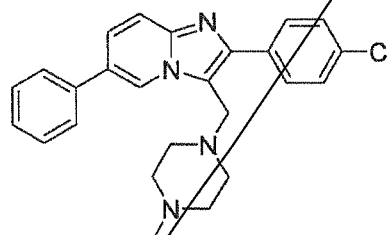
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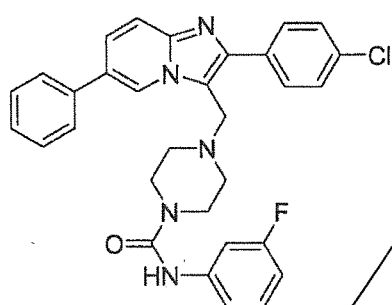
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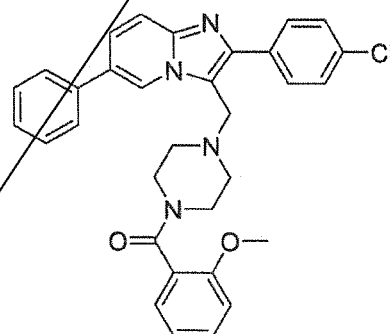
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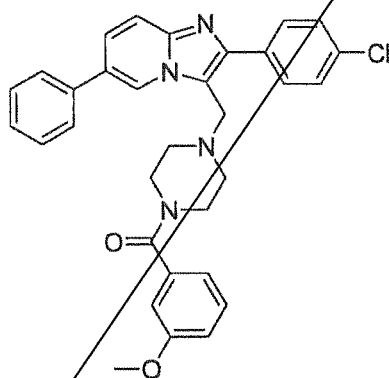
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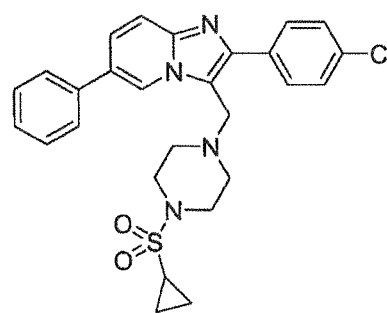
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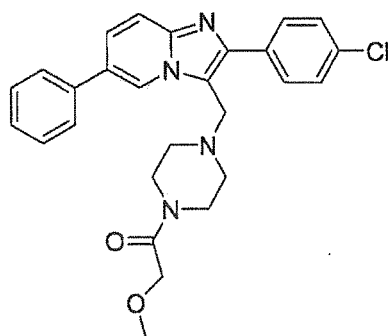
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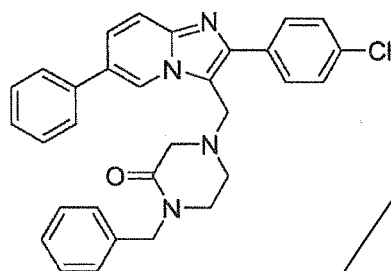
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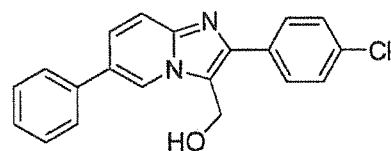
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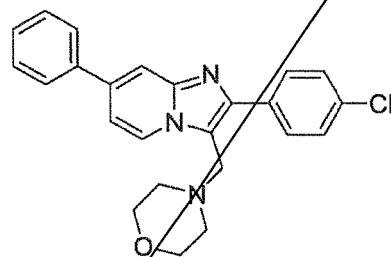
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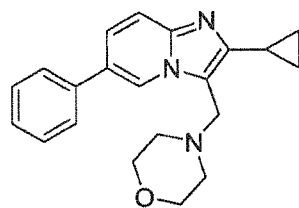
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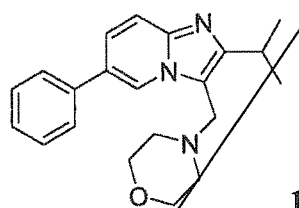
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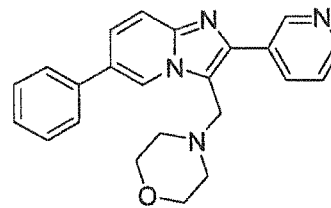
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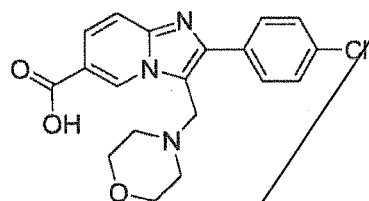
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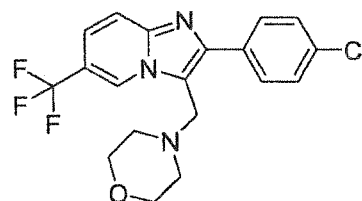
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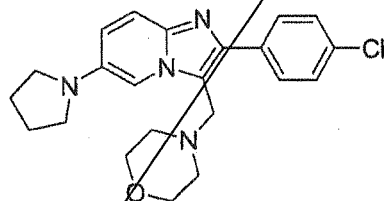
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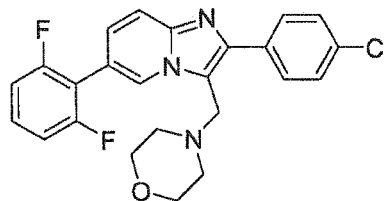
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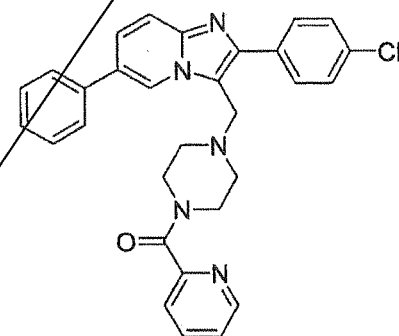
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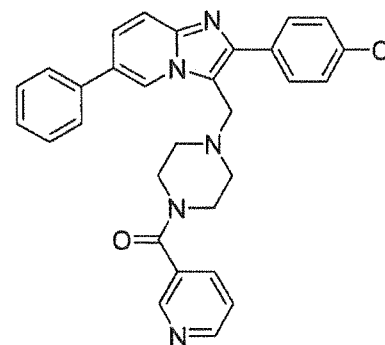
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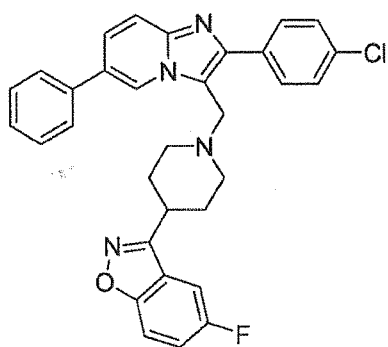
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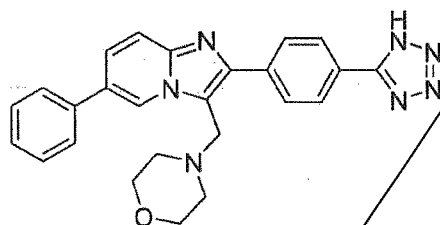
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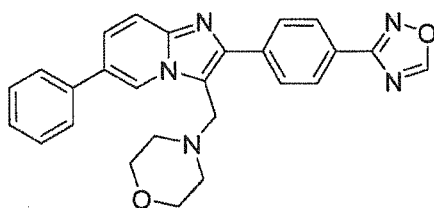
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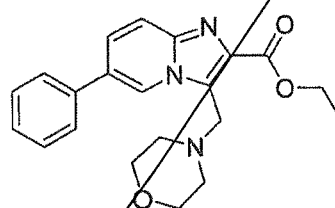
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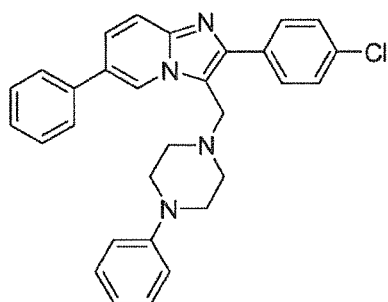
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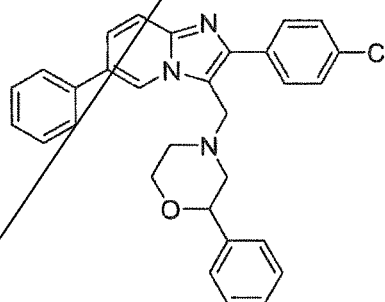
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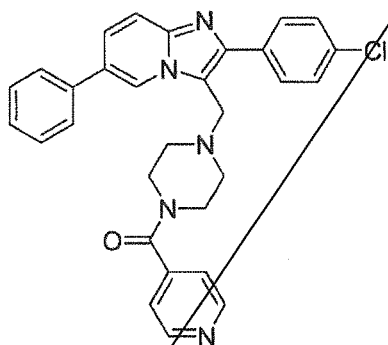
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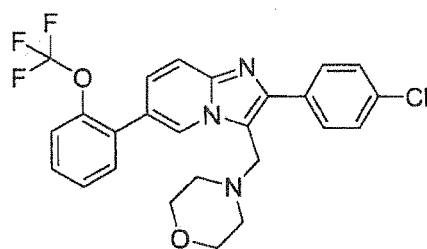
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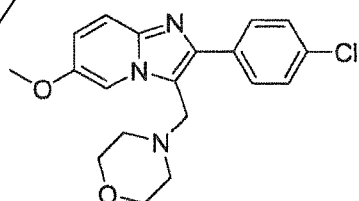
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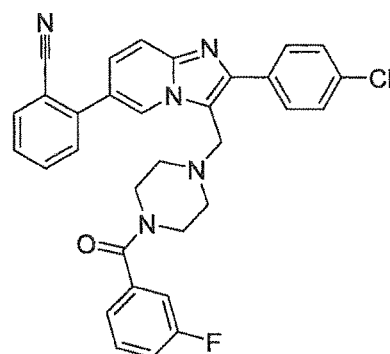
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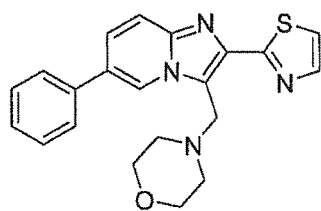


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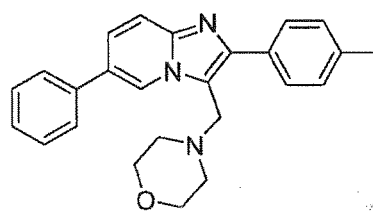


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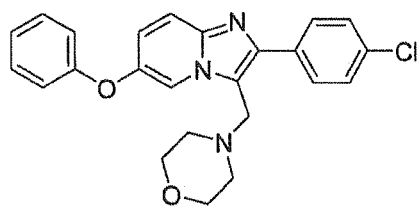
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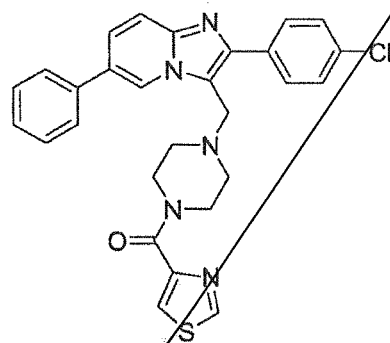
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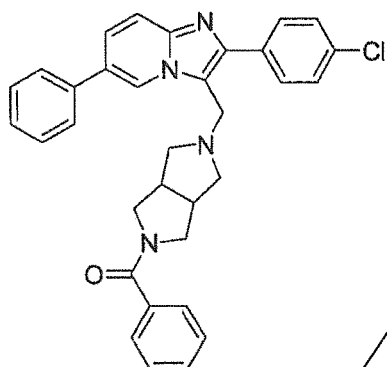
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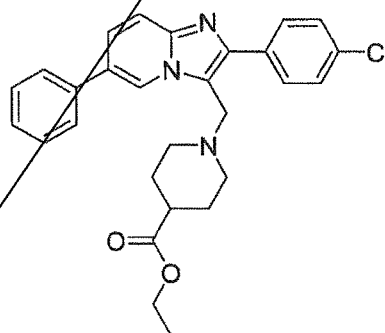
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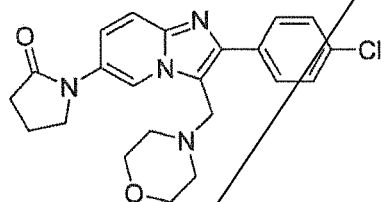
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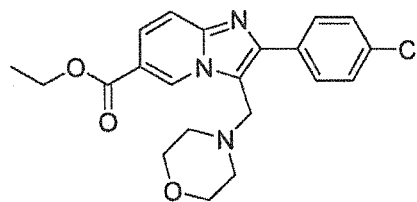
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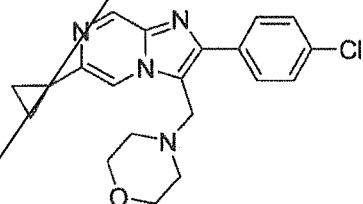
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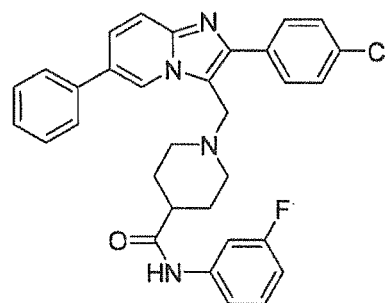
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163

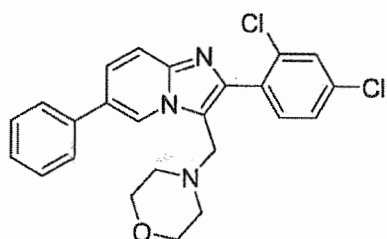


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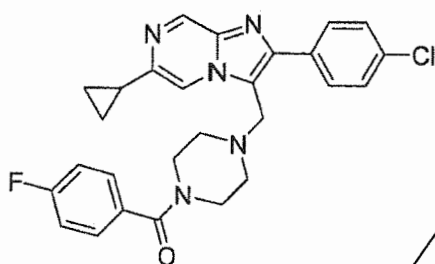


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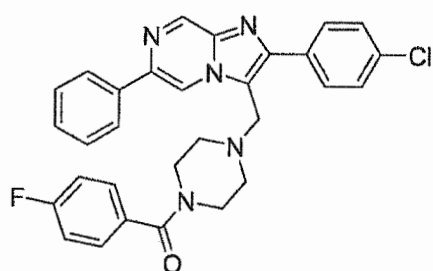
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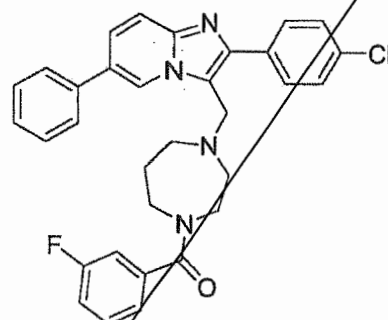
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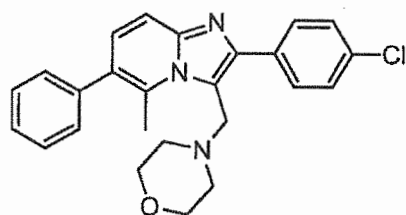
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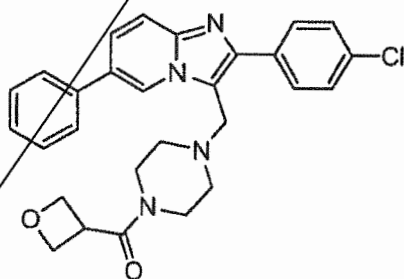
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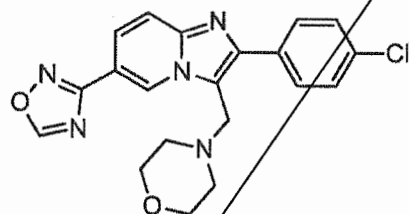
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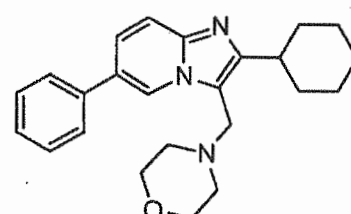
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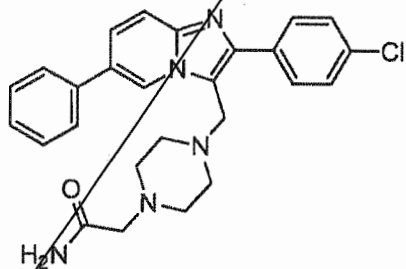
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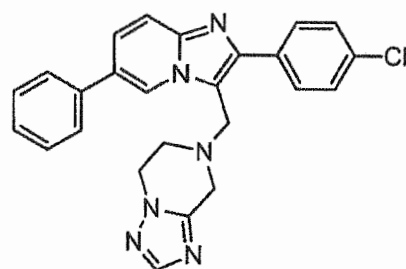
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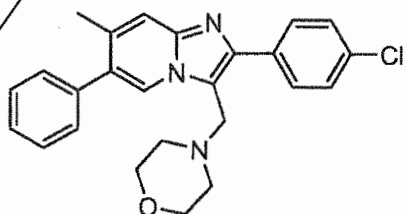
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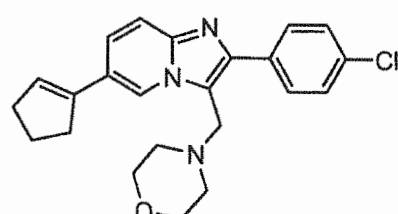
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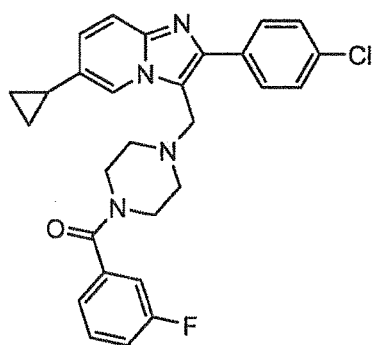


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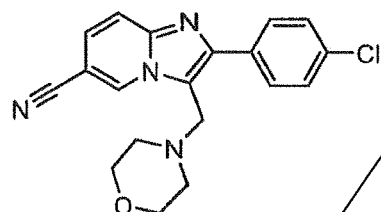


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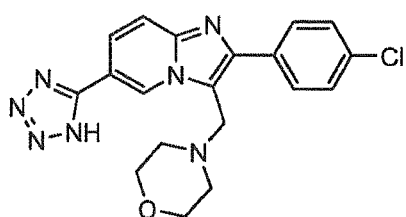
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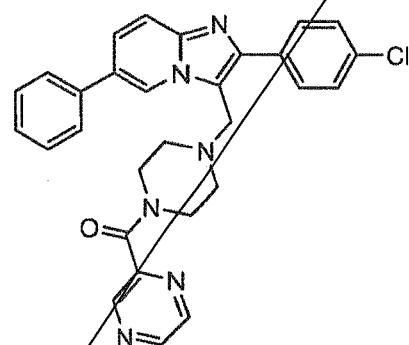
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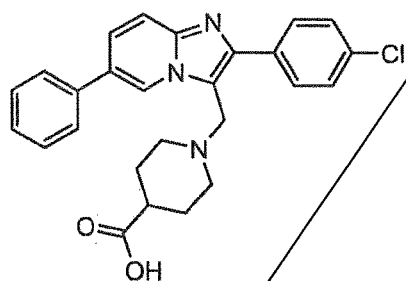
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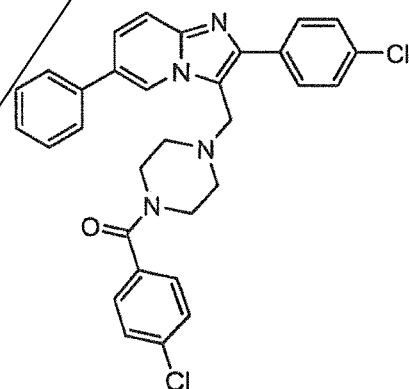
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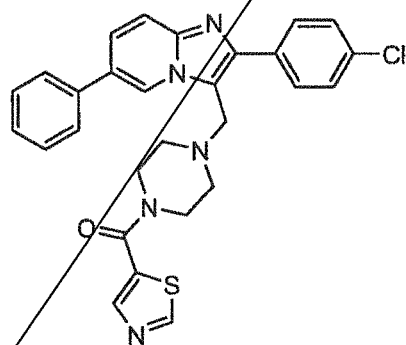
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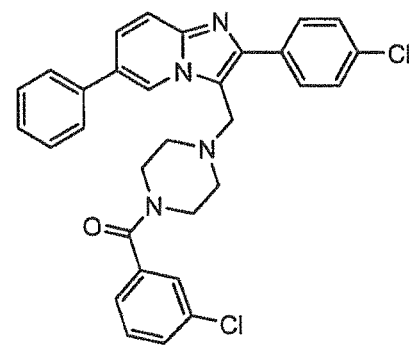
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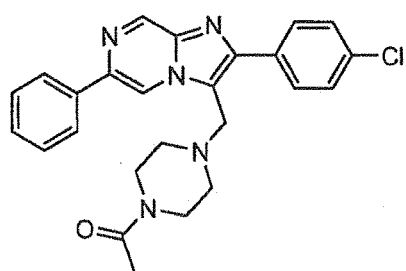


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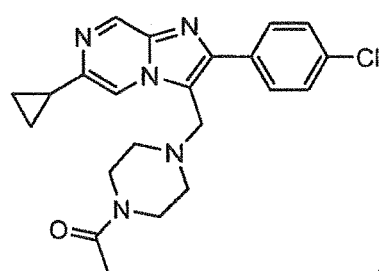


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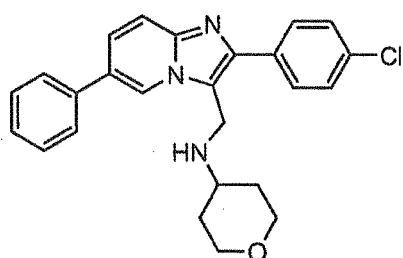
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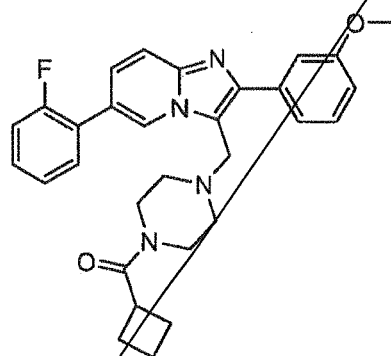
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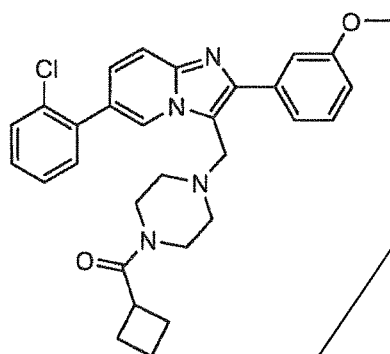
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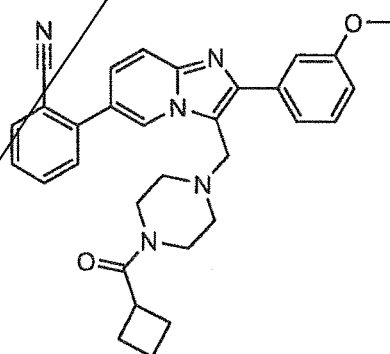
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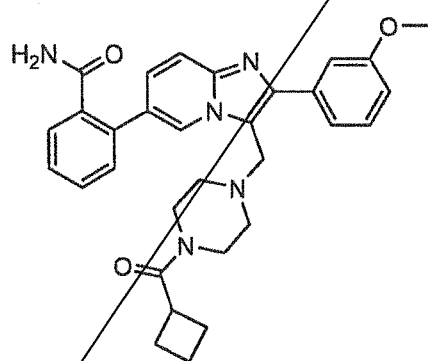
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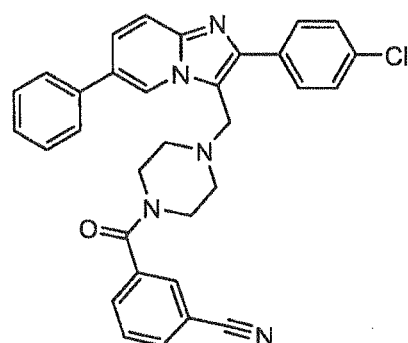
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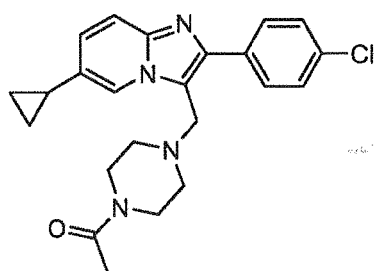


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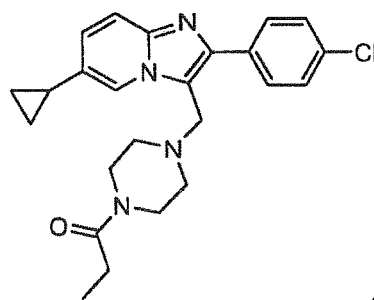


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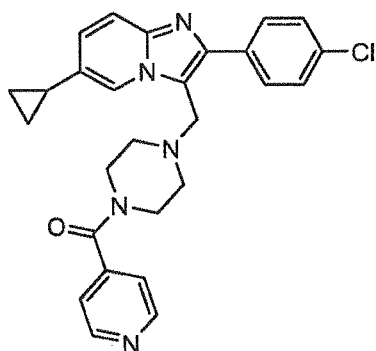
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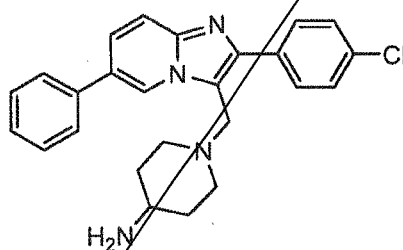
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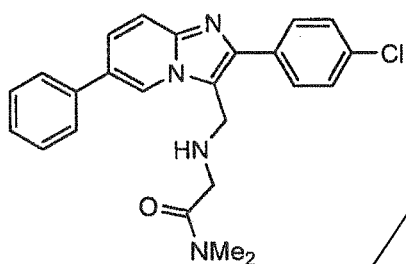
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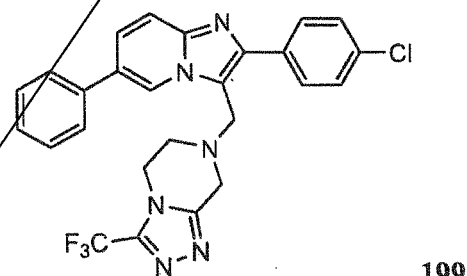
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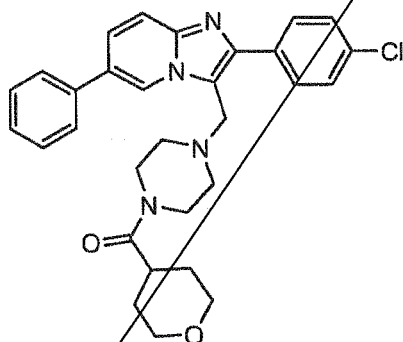
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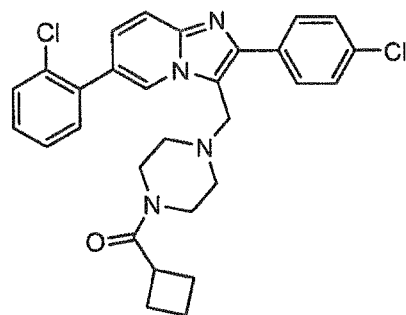
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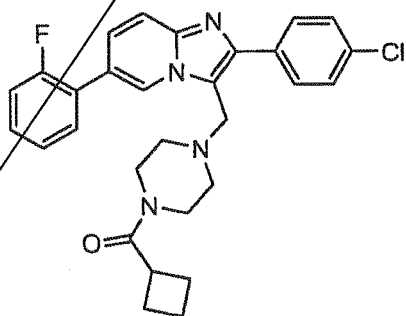
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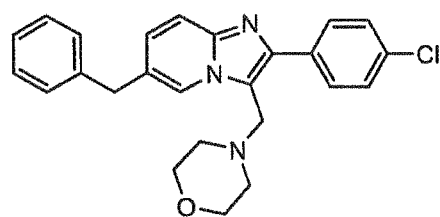
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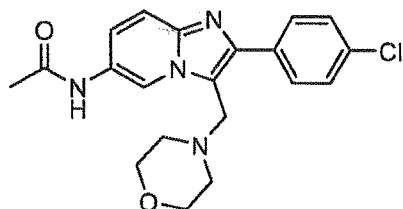


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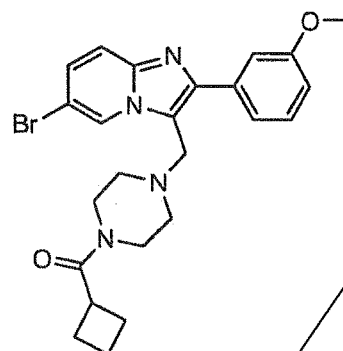


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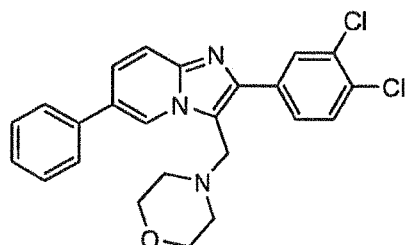
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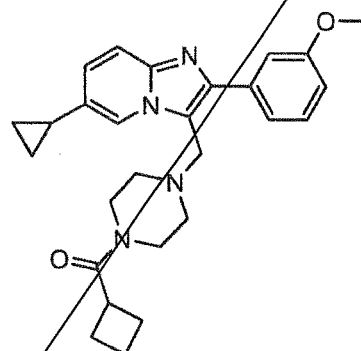
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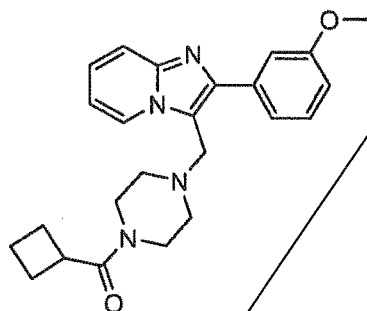
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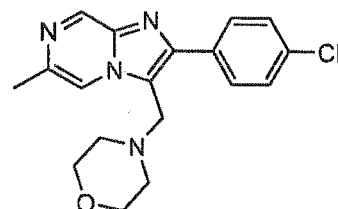
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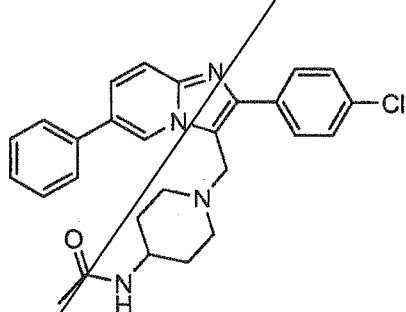
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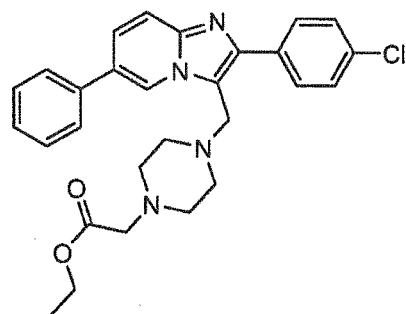
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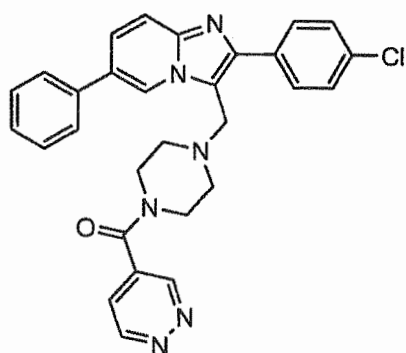


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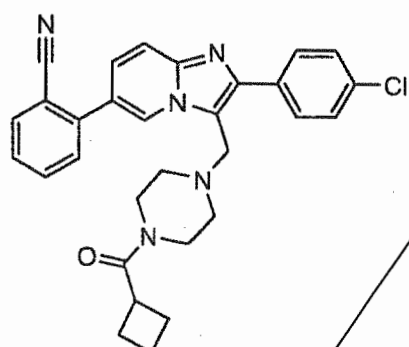


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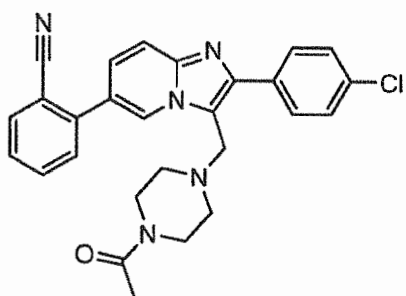
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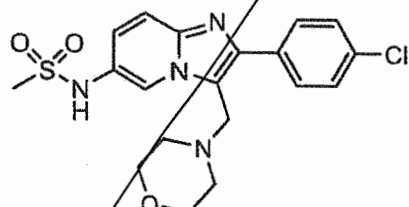
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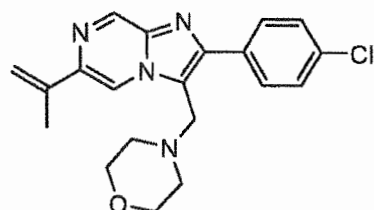
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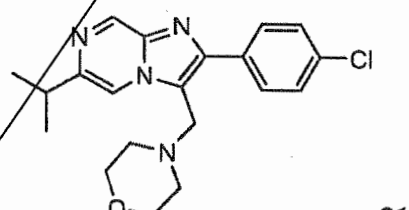
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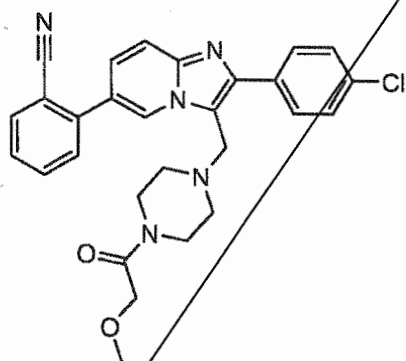
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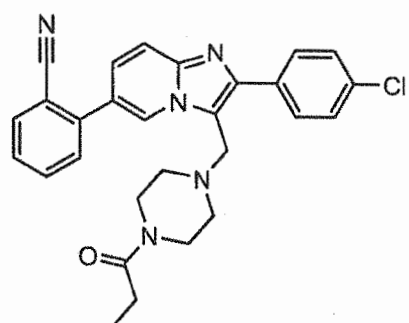
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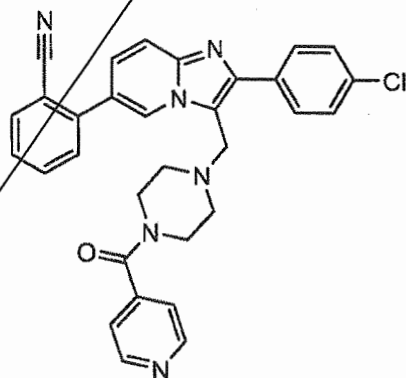
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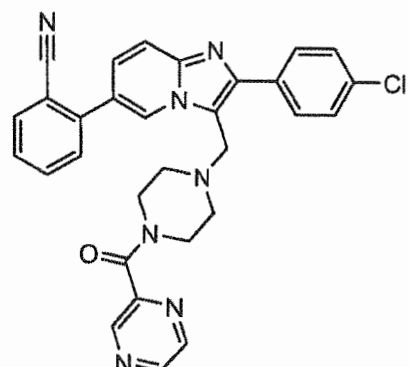
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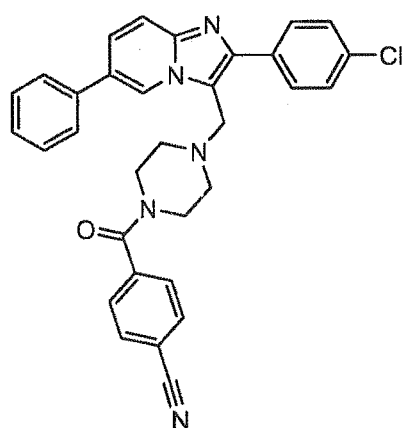


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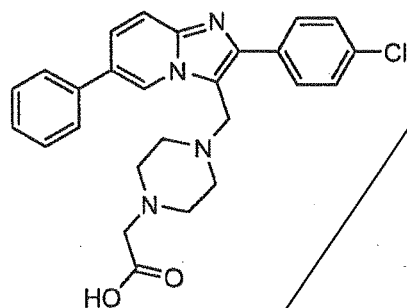


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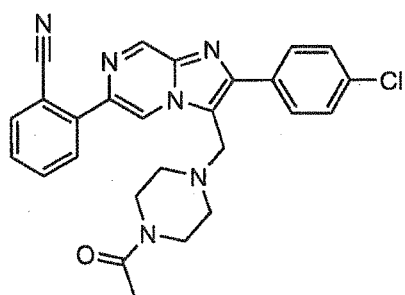
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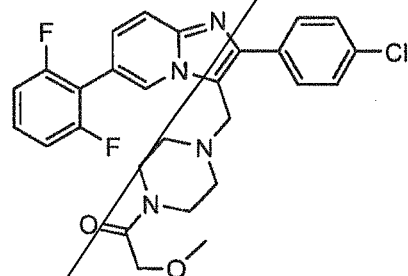
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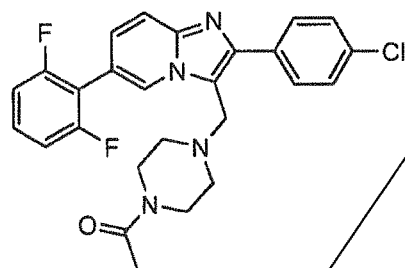
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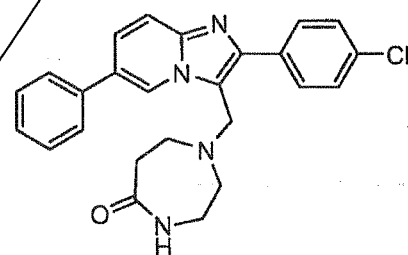
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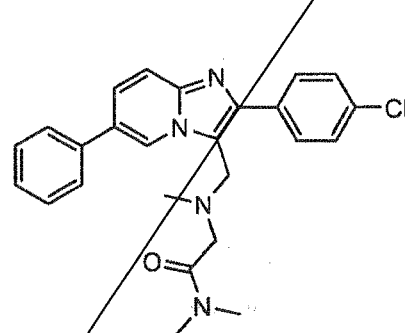
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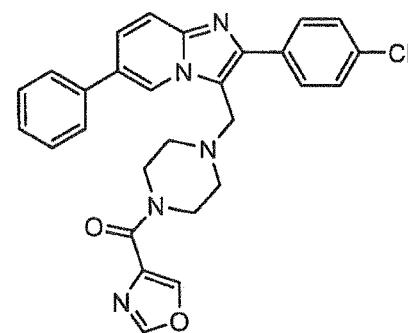
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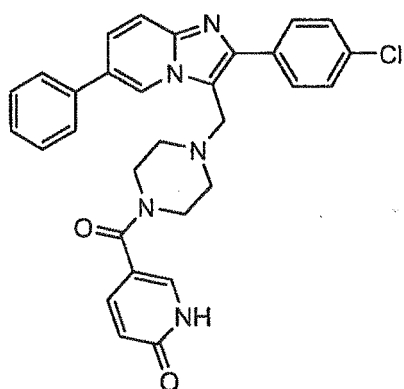


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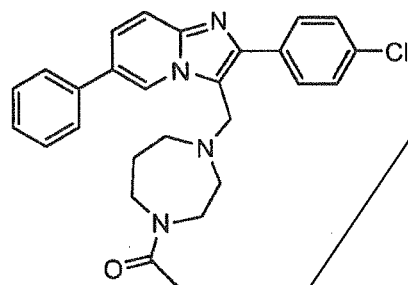


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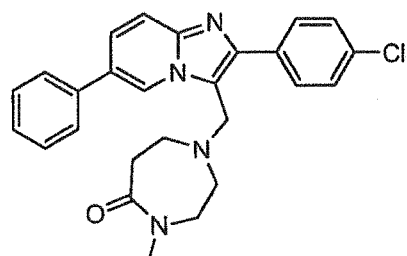
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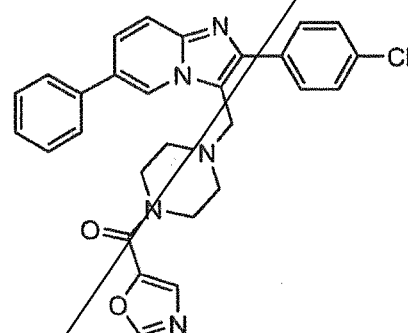
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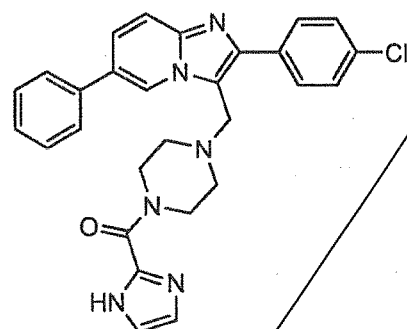
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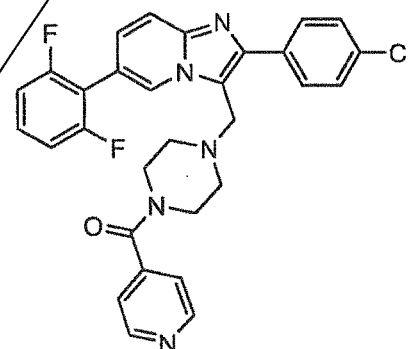
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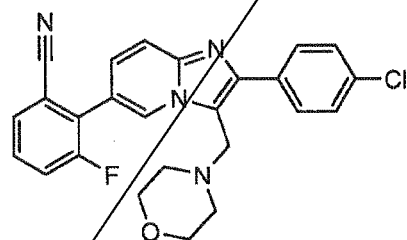
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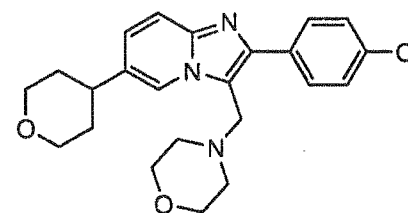
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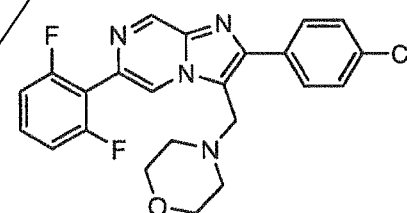
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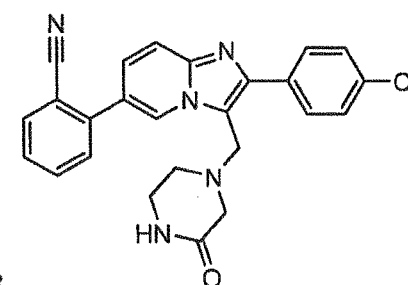
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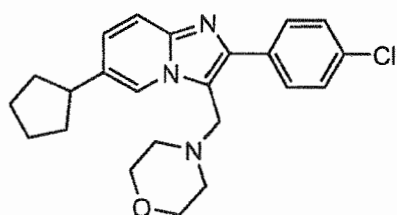


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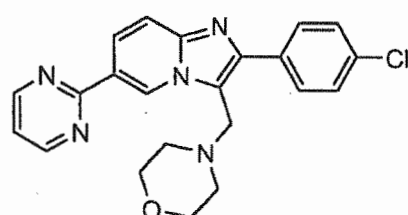


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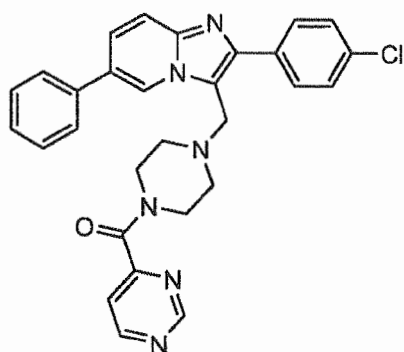
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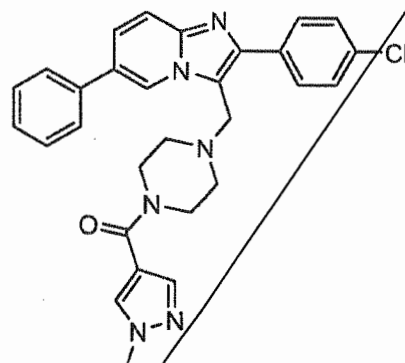
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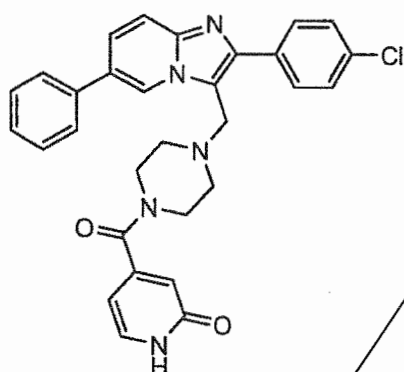
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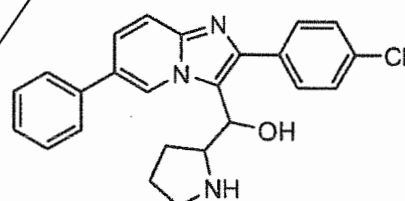
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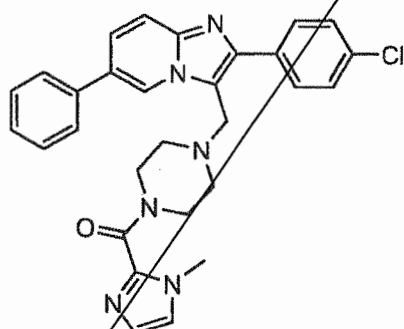
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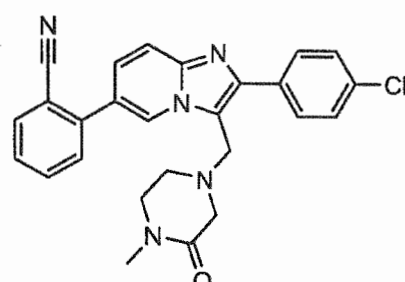
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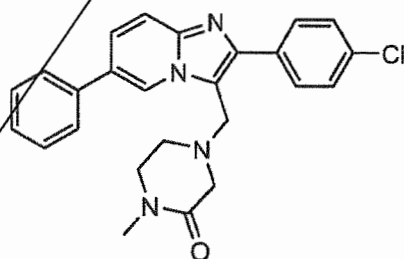
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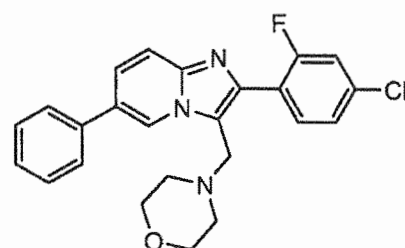
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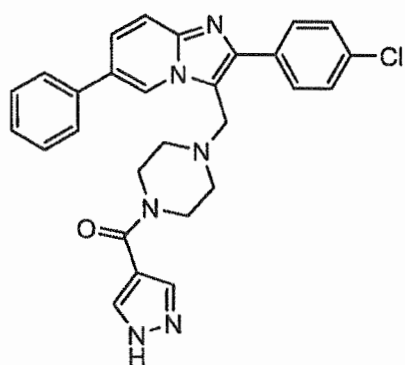


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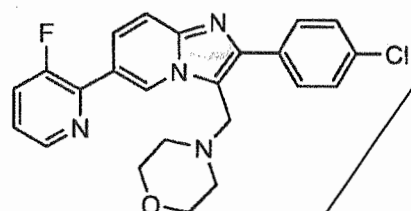


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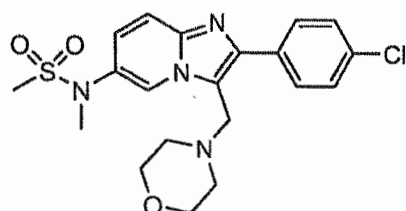
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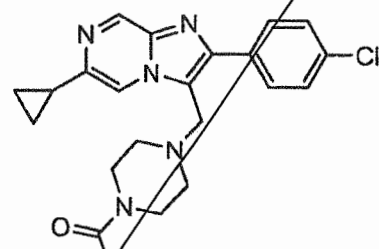
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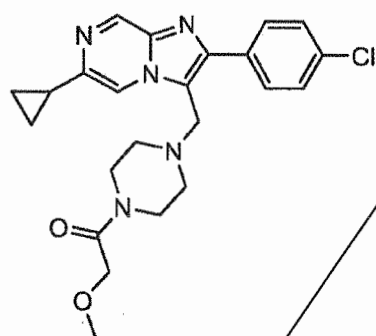
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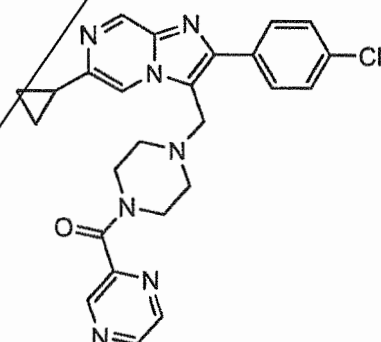
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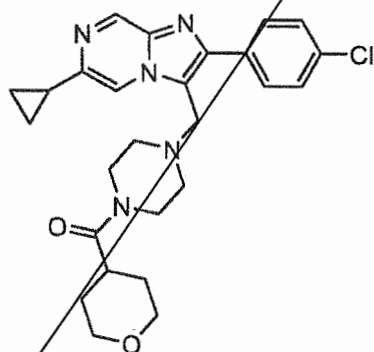
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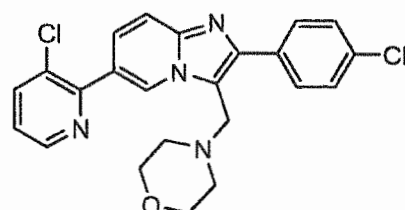
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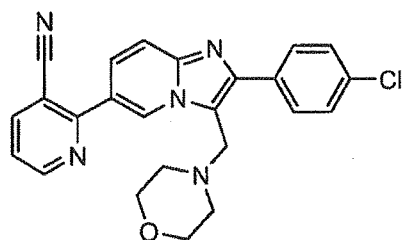


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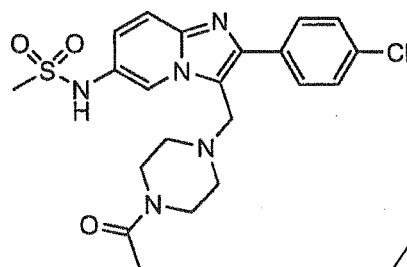


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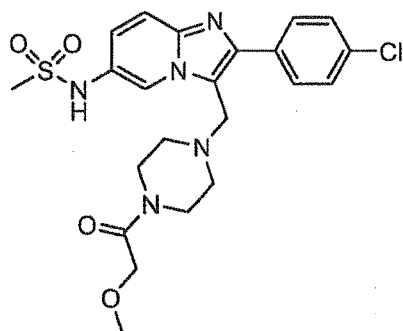
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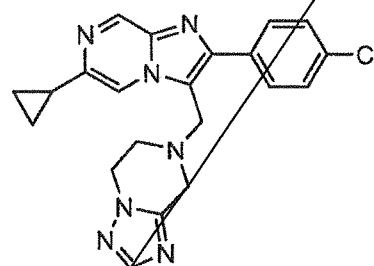
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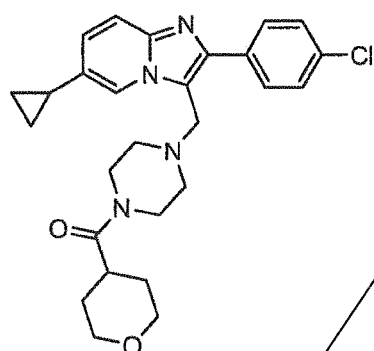
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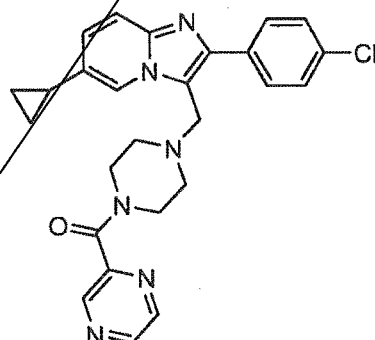
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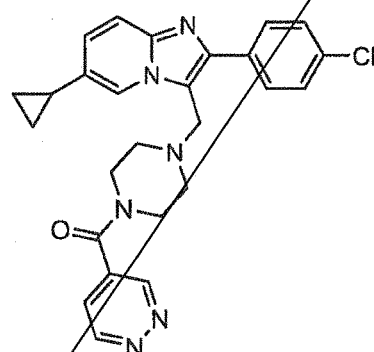
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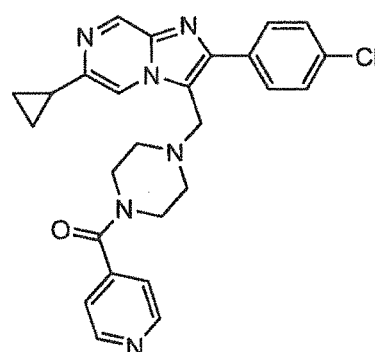
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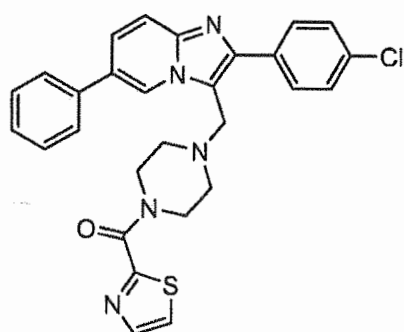


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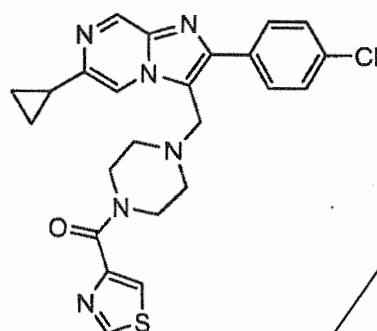


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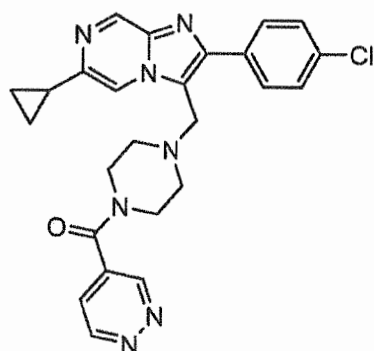
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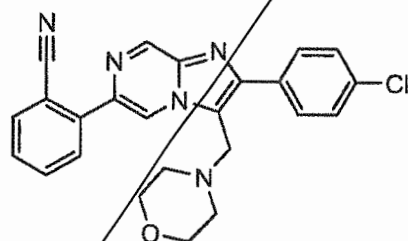
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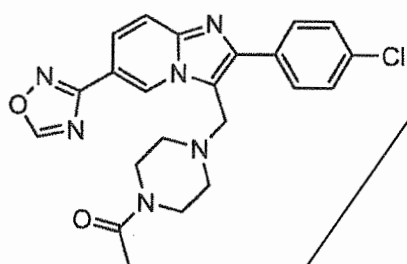
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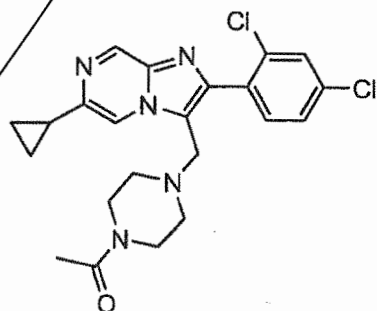
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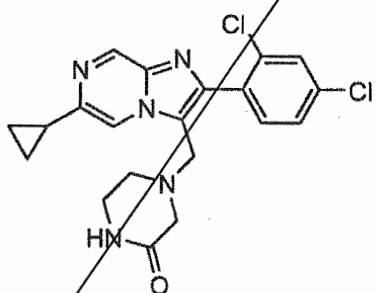
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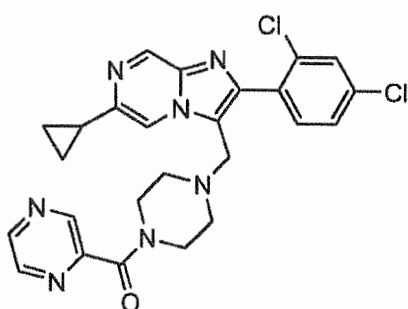
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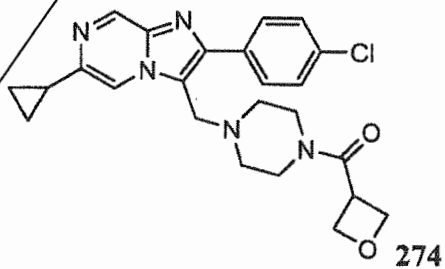
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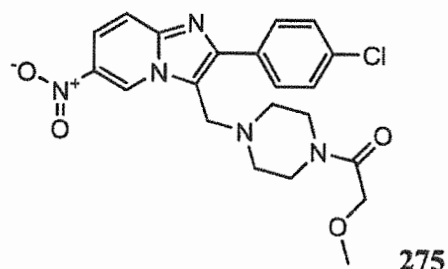
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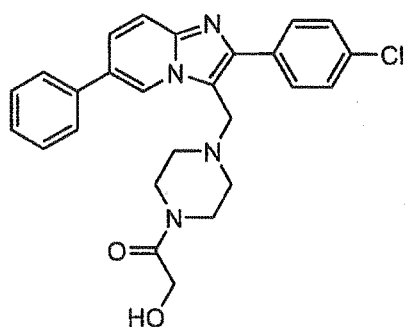


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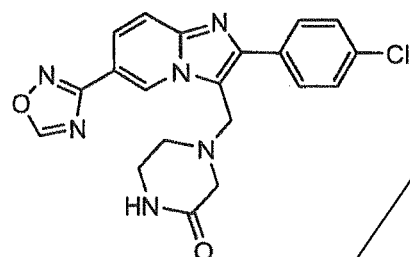


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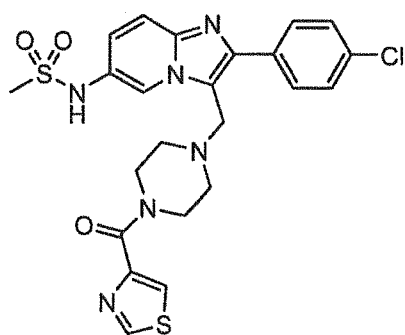
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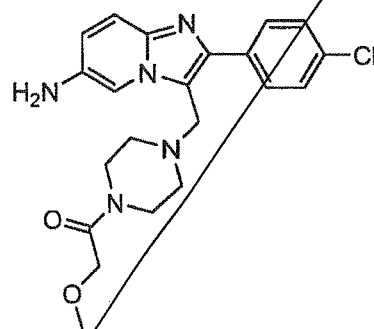
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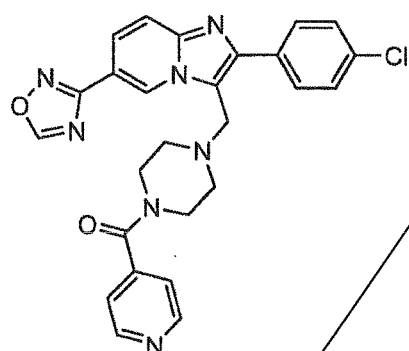
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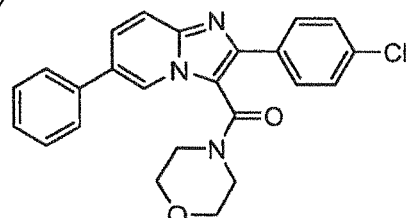
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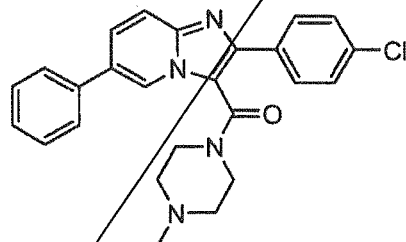
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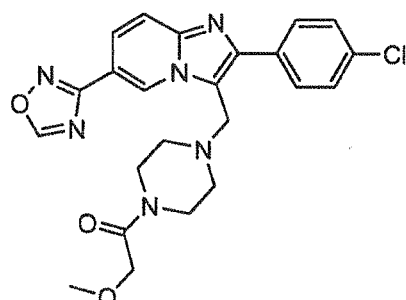
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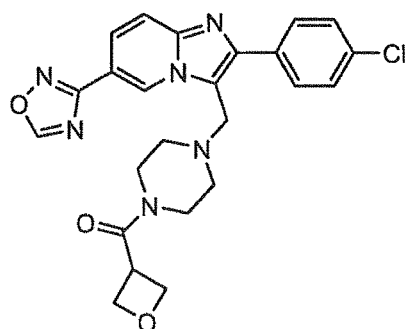


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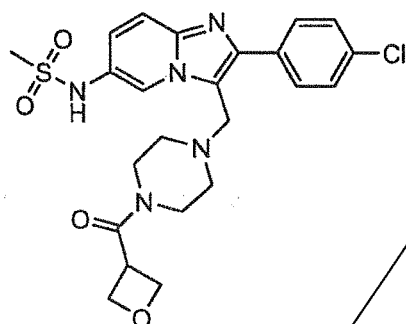


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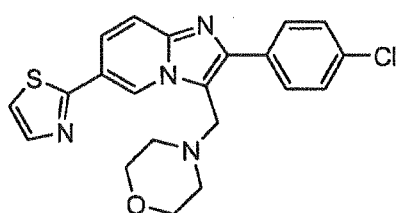
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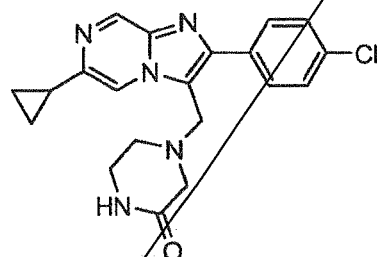
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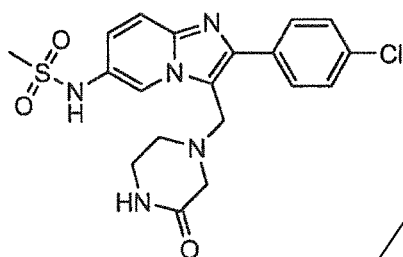
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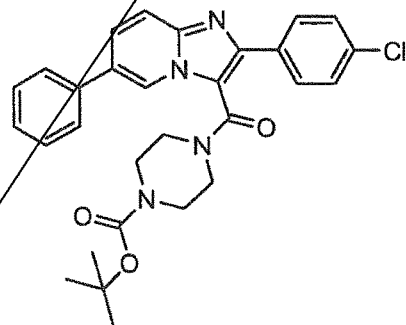
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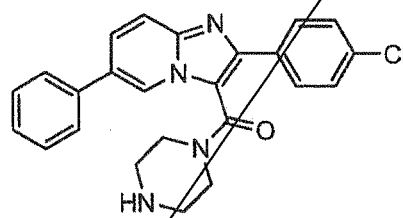
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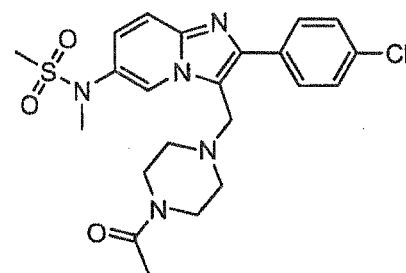
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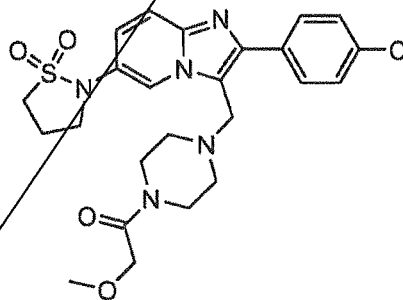
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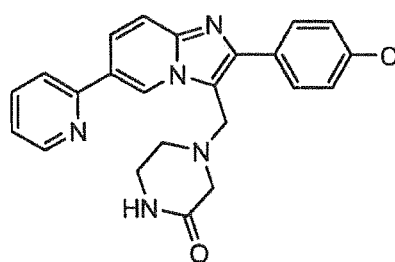
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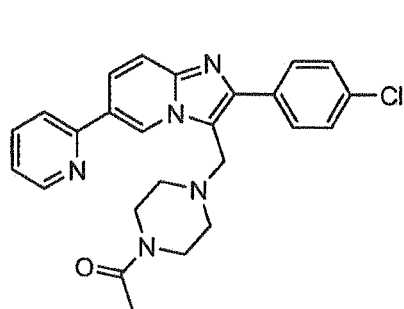


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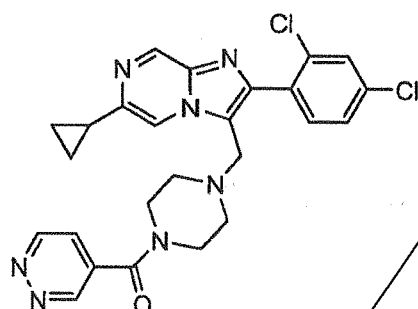


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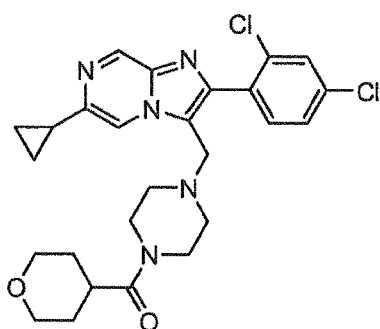
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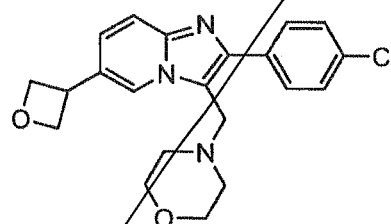
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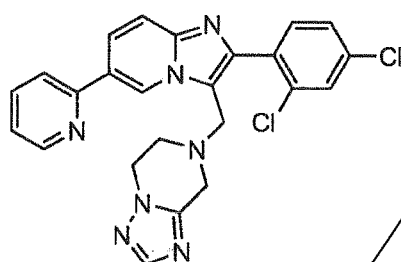
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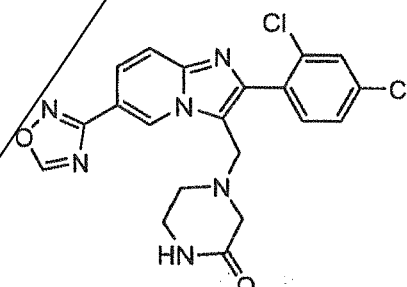
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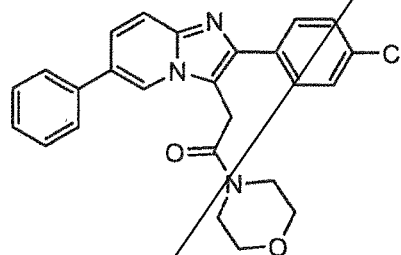
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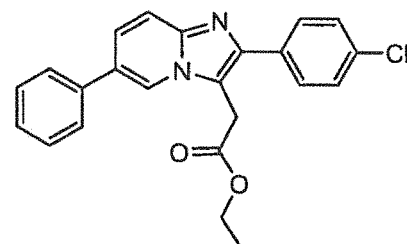
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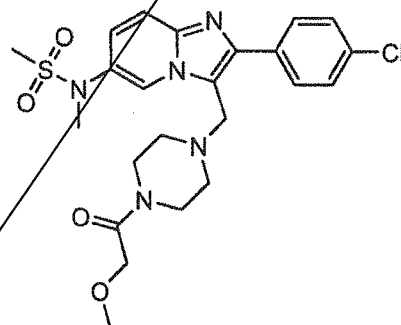
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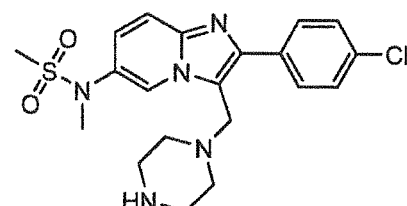
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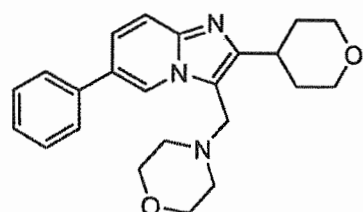


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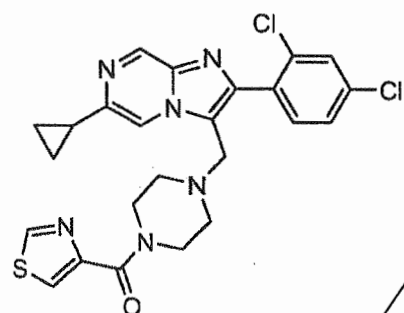


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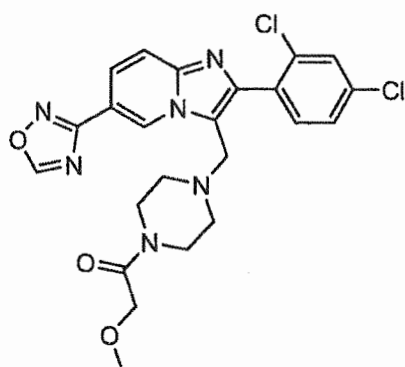
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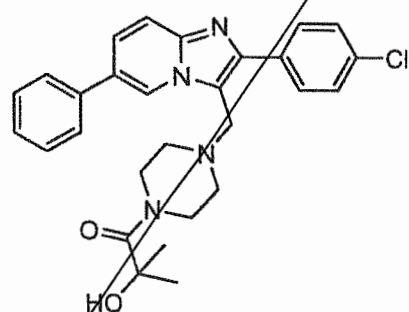
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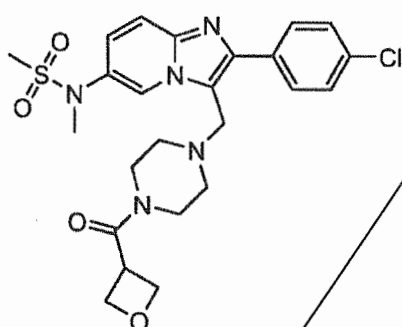
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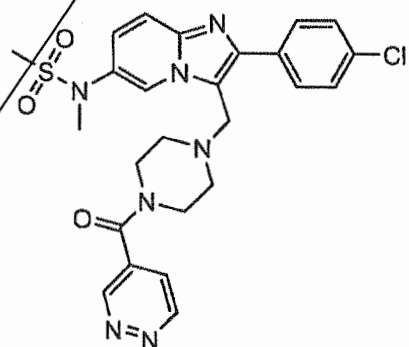
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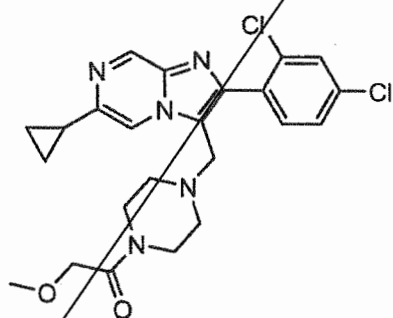
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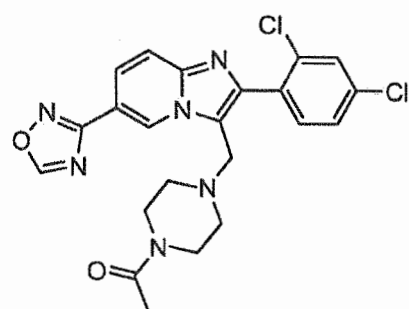
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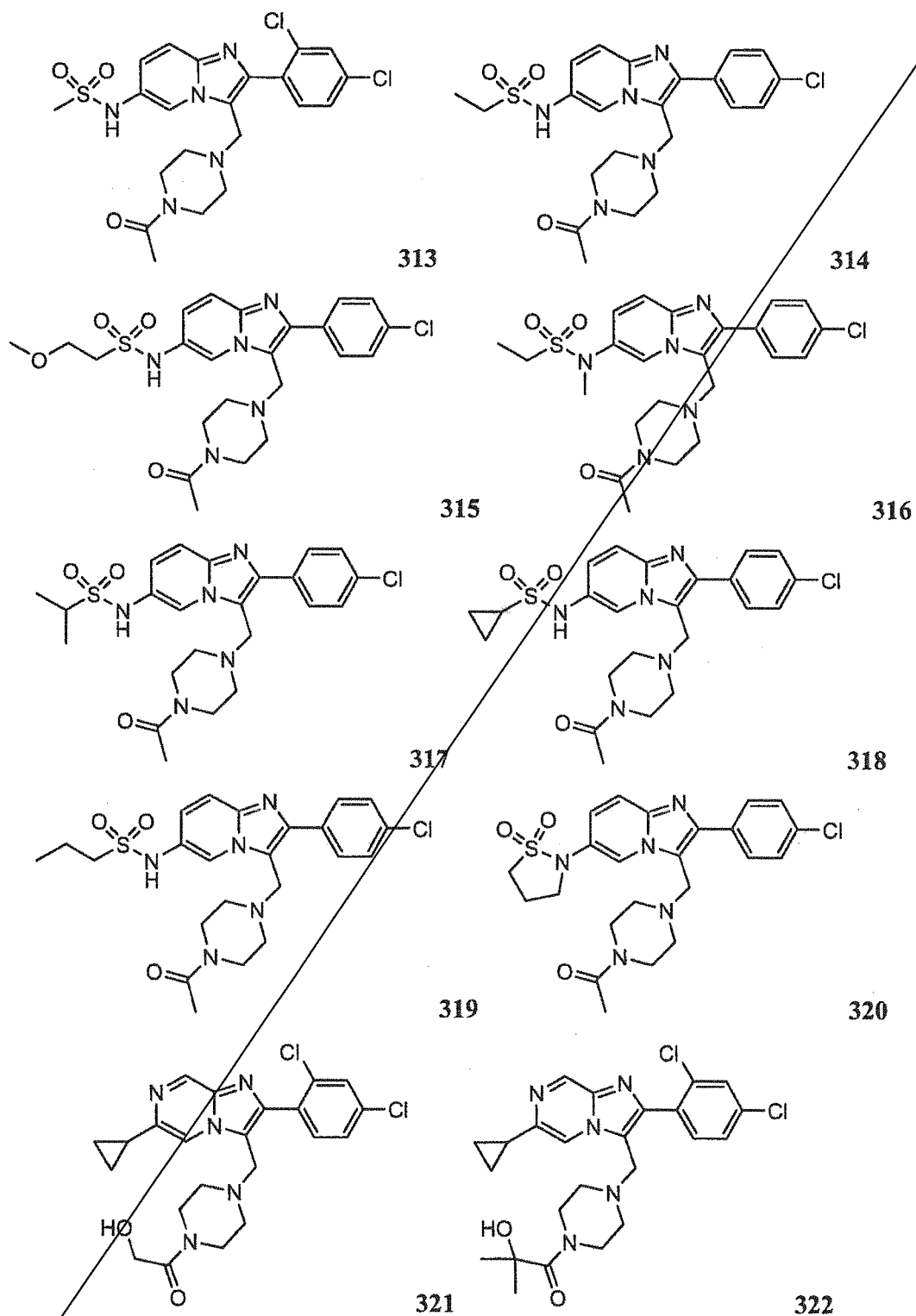


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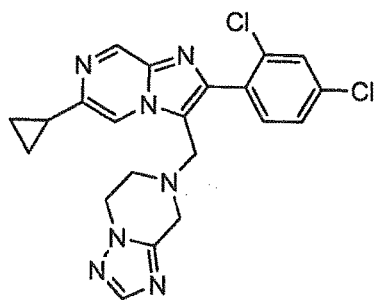


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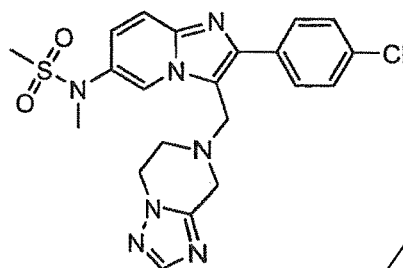
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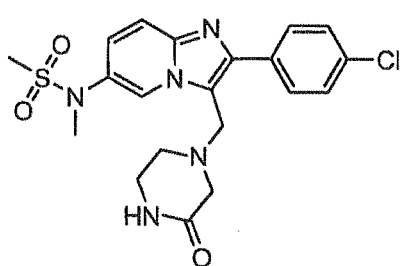
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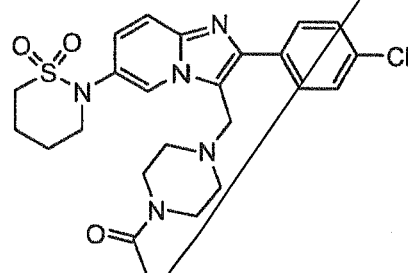
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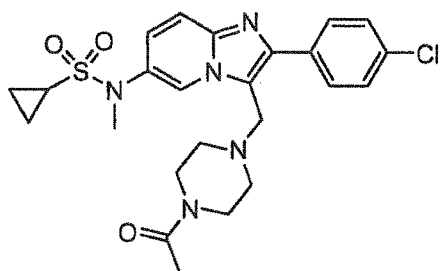
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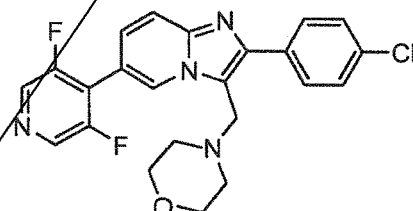
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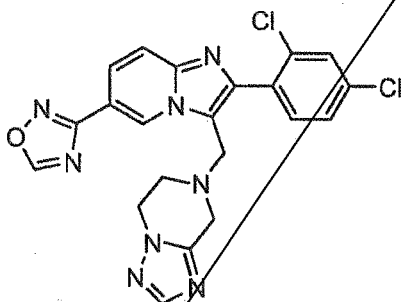
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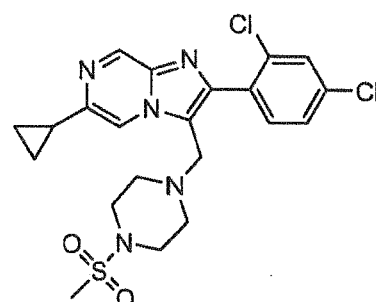
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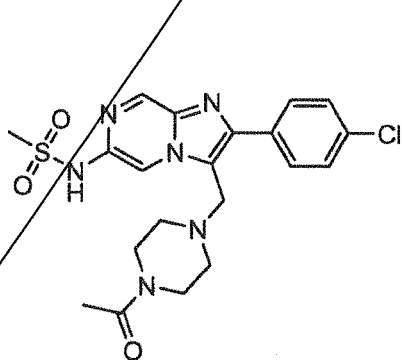
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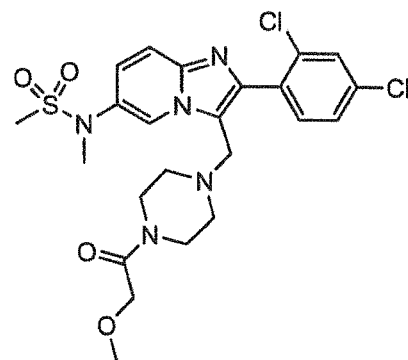
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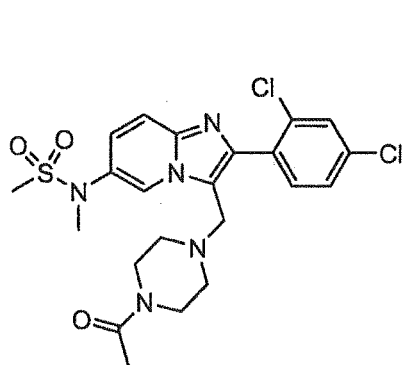


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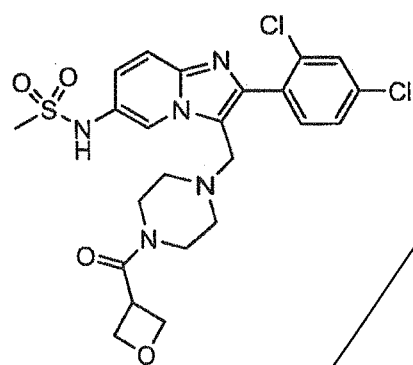


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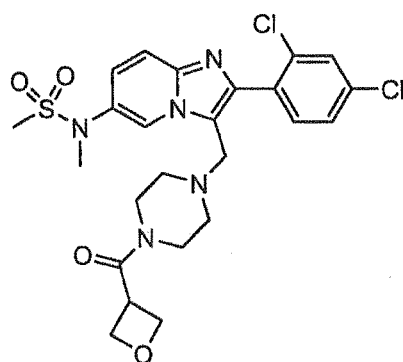
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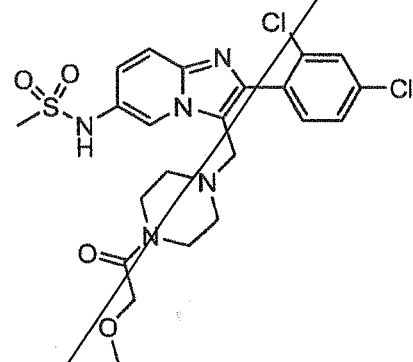
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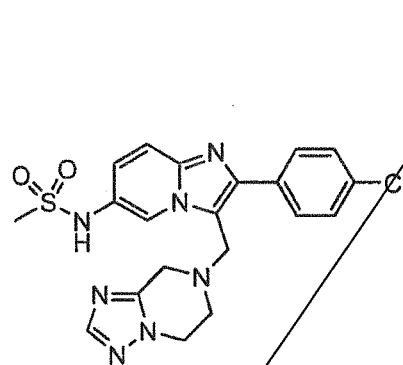
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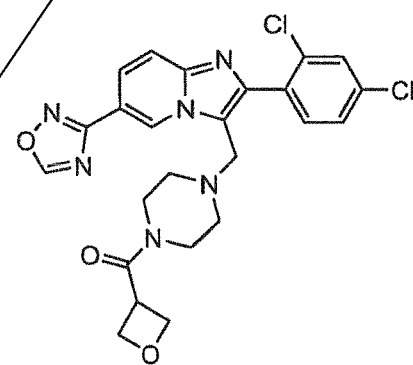
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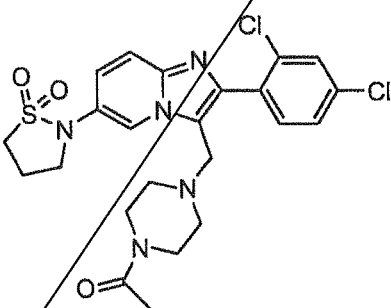
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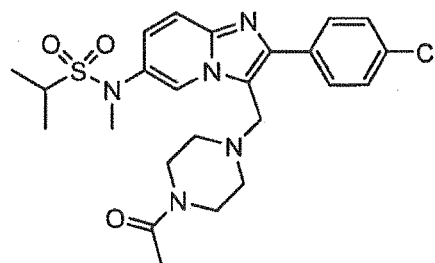
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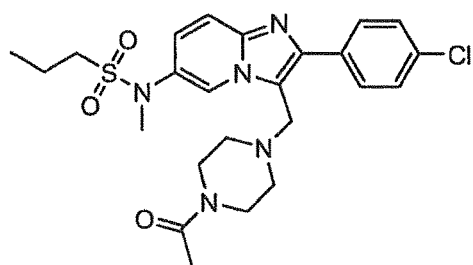


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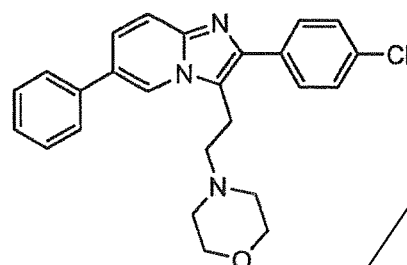


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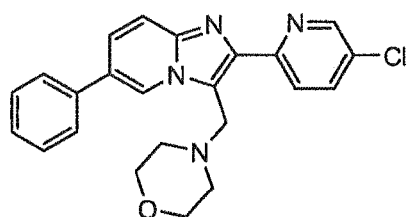
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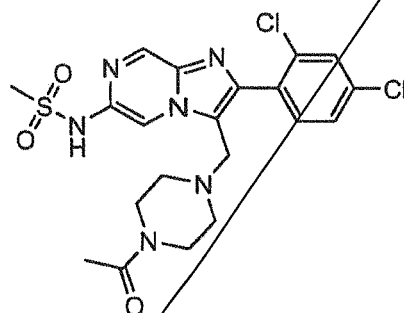
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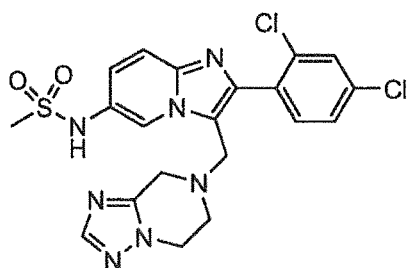
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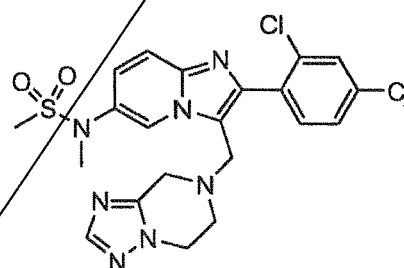
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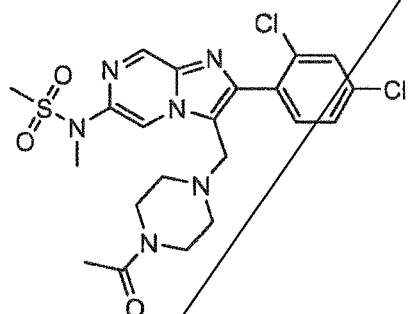
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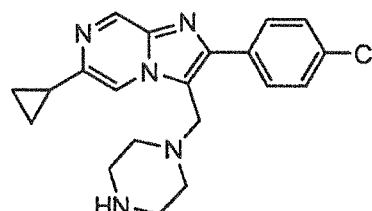
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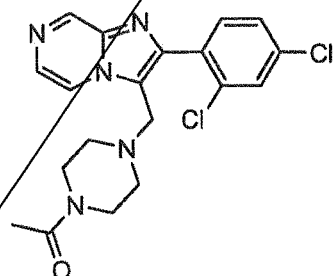
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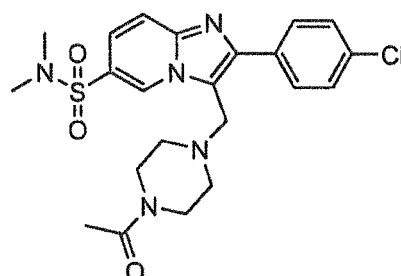
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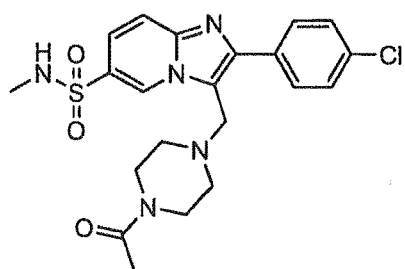


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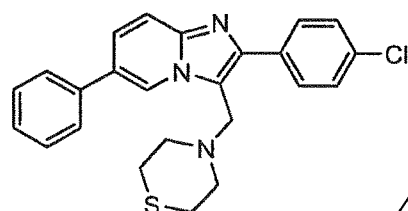


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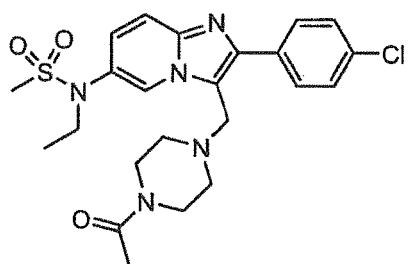
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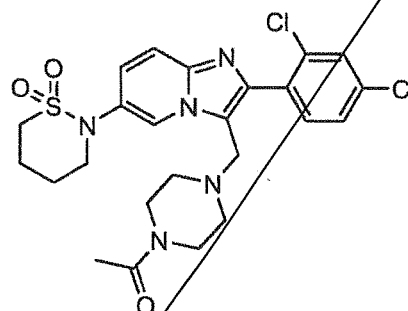
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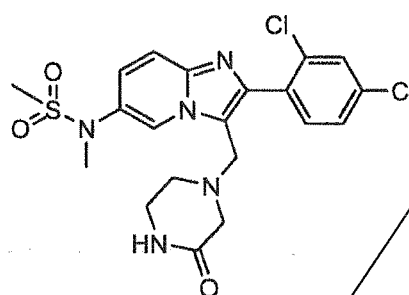
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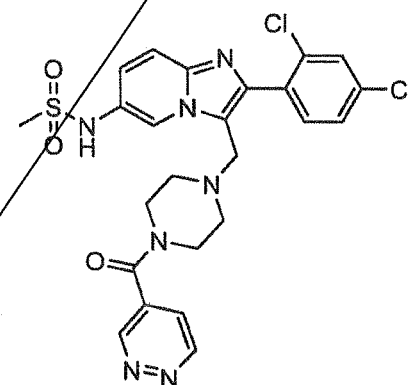
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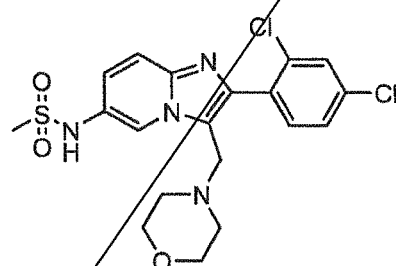
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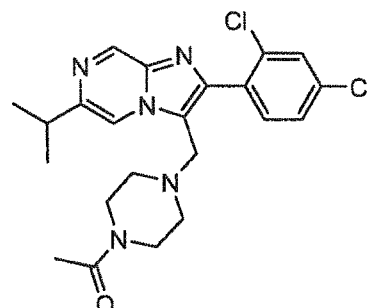
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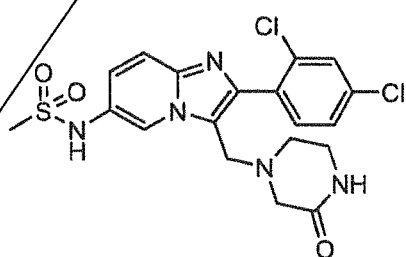
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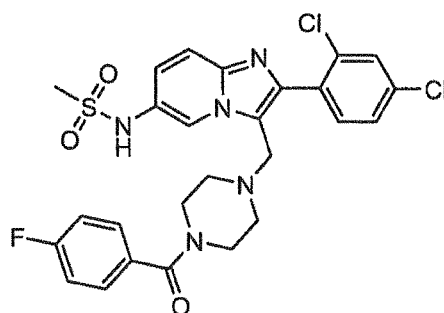
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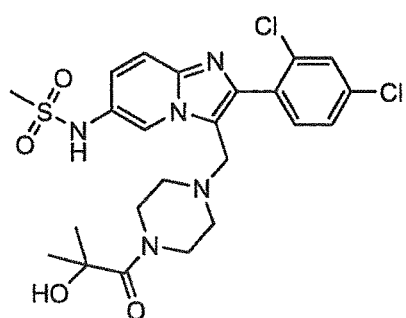
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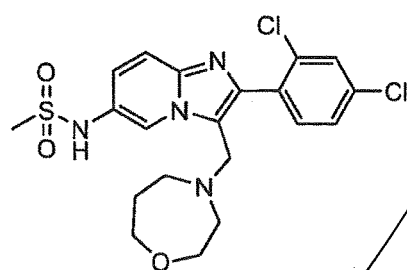
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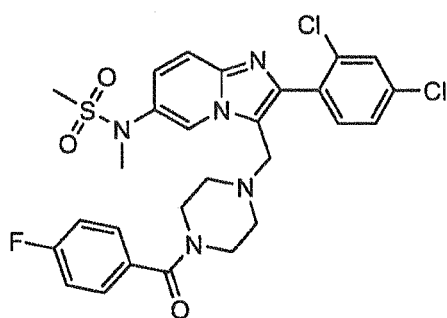
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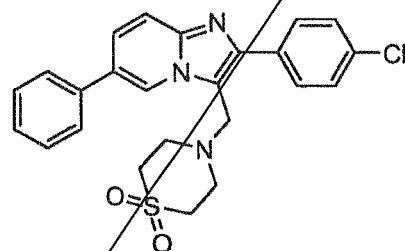
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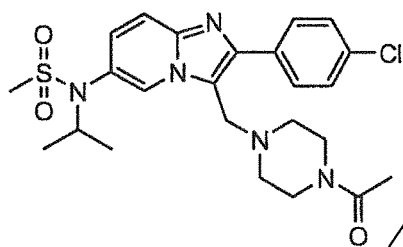
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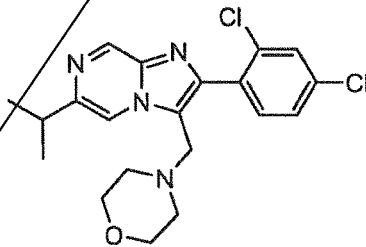
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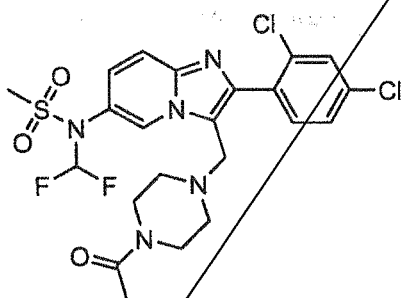
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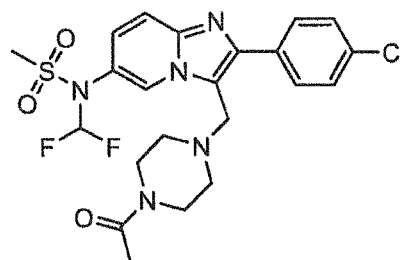
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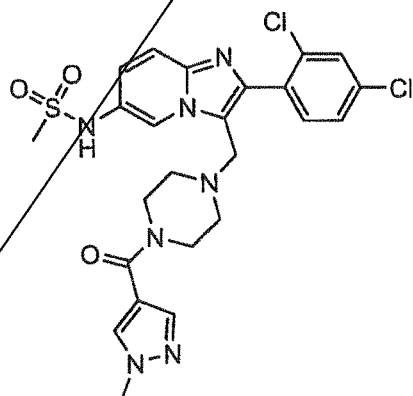
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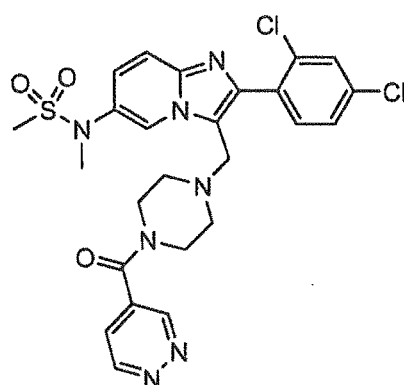
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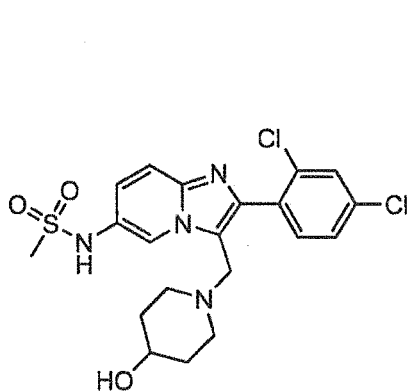
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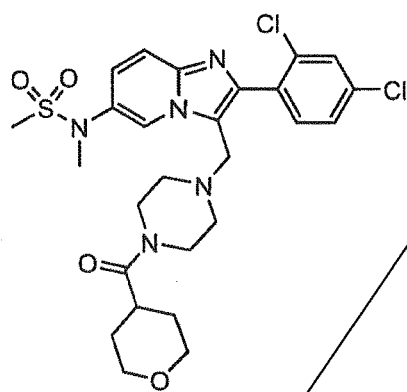
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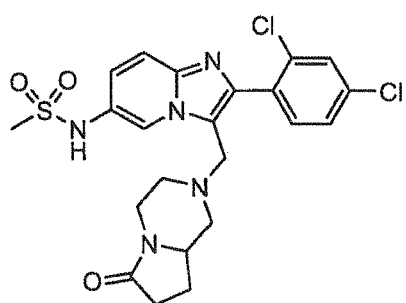
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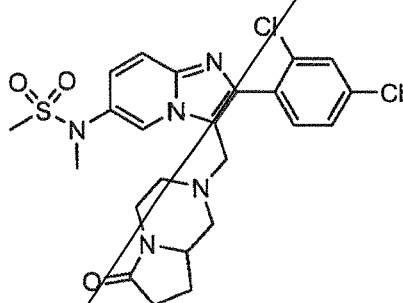
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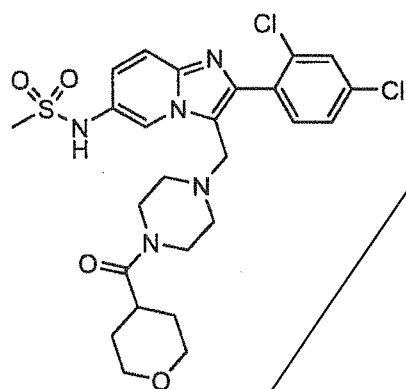
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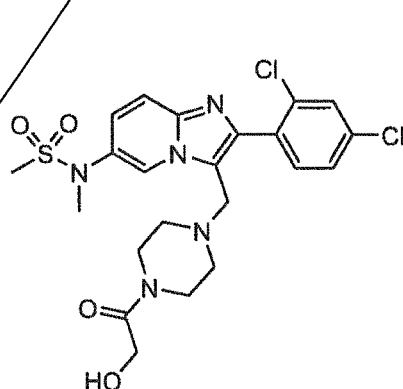
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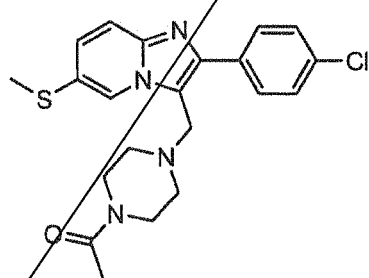
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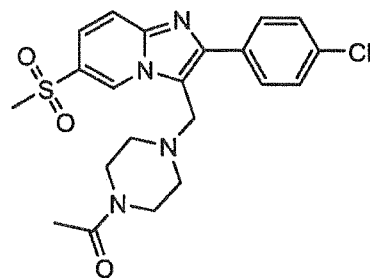
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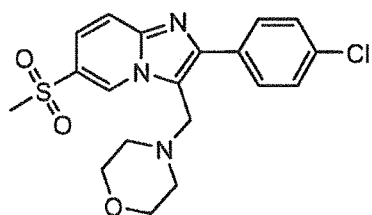
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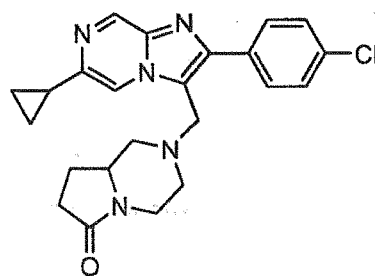
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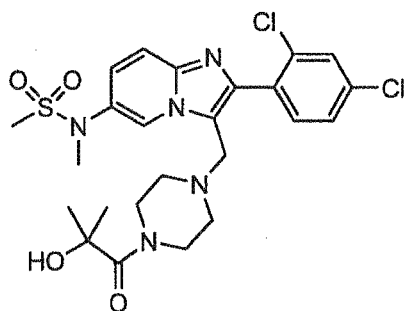
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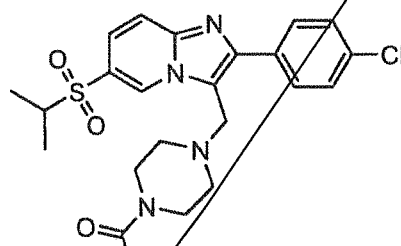
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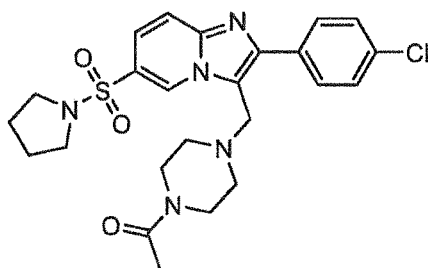
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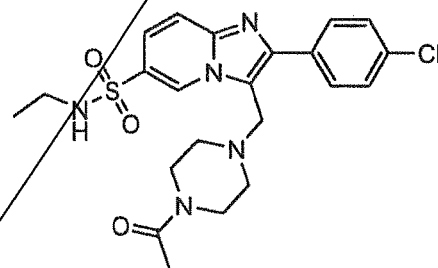
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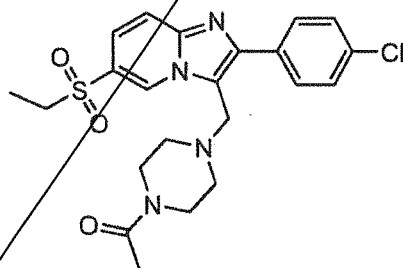
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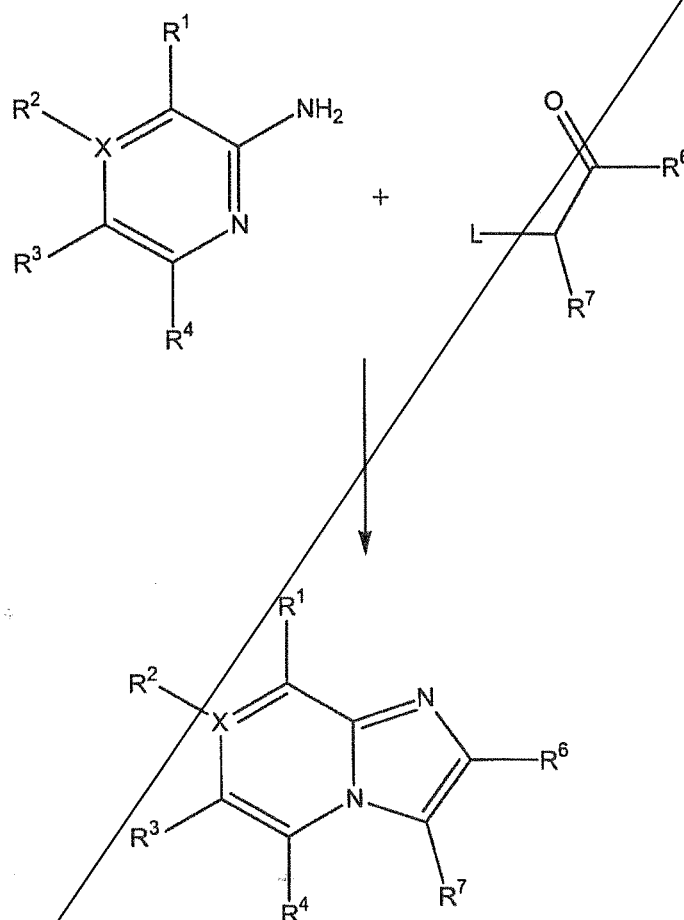
385

37. A compound according to any of claims 34-36, which compound comprises:

- an isolated enantiomer, or
- a mixture of two or more enantiomers, or
- a mixture of two or more diastereomers, and/or epimers, or
- a racemic mixture.

38. A method of synthesis of a compound as defined in any of claims 34-37, which method comprises reacting a substituted or unsubstituted pyridine compound with a substituted or unsubstituted ketone compound in a ring forming step.

39. A method of synthesis according to claim 38, which method comprises a ring-forming step as follows:



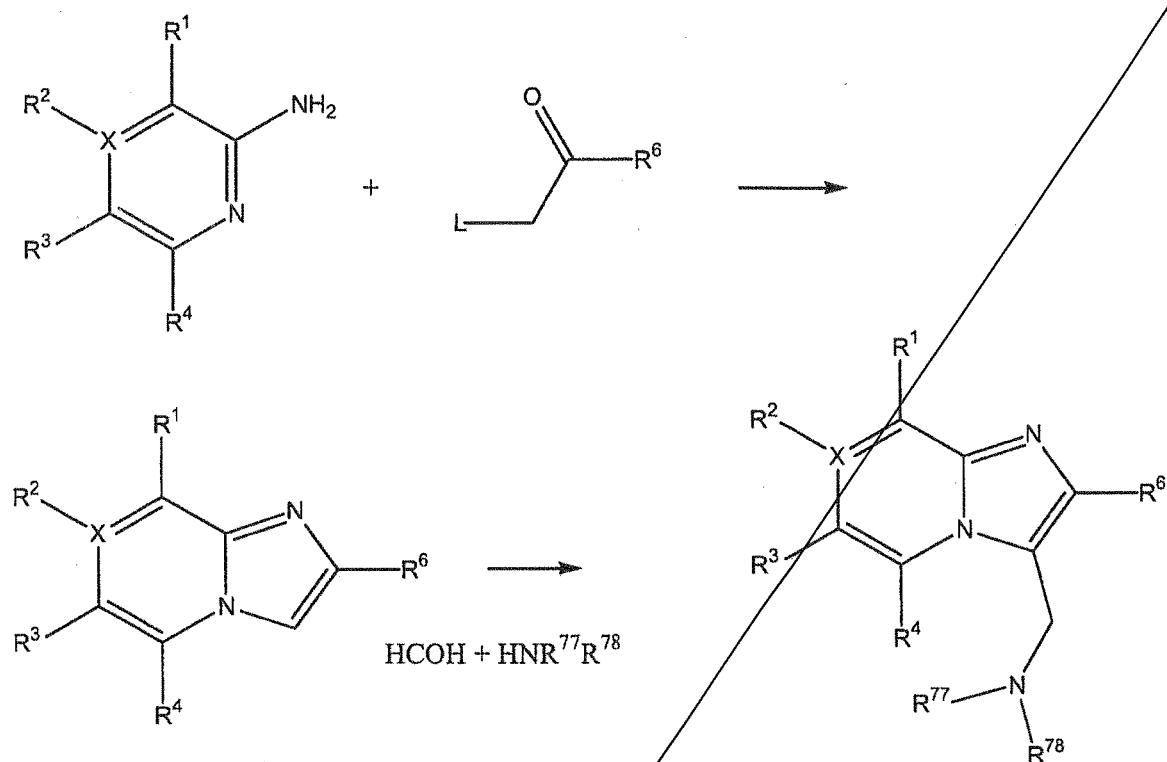
wherein L is a leaving group; X is C or N; and wherein R¹, R², R³, R⁴, R⁶ and R⁷ are independently selected from H or an organic group; and wherein when X is N R² is absent; optionally wherein when any of R¹, R², R³, R⁴, R⁶ and R⁷ is H, the method comprises a further step of substituting that H with an organic group; preferably wherein the R¹, R², R³, R⁴, R⁶ and R⁷ groups are substituents as defined in any of claims 1-17.

40. A method according to claim 38 or claim 39, wherein L is selected from the following:

- a halogen (such as F, Cl, Br, and I);
- an OH and an alkoxy group (such as -OMe, -OEt, -OPr, and -OPh);
- N_2^+ , OR_2^+ , $\text{-OSO}_2\text{C}_4\text{F}_9$, $\text{-OSO}_2\text{CF}_3$, $\text{-OSO}_2\text{F}$, a tosylate (-OTs), a mesylate (-OMs), -OH_2^+ , an acyl halide (such as -CO-F , -CO-Cl , -CO-Br , -CO-I), $\text{-OH(C}_1\text{-C}_6\text{ alkyl)}^+$, -ONO_2 , -OPO(OH)_2 , an inorganic ester, $\text{-S(C}_1\text{-C}_6\text{ alkyl)}_2^+$, $\text{-N(C}_1\text{-C}_6\text{ alkyl)}_3^+$, $\text{-OCO(C}_1\text{-C}_6\text{ alkyl)}$, and -NH_3^+ .

41. A method according to any of claims 38-40, wherein the ring-forming step is carried out by refluxing under acid or base catalysis.

42. A method according to any of claims 38-41, which method comprises the following steps:



wherein R⁷⁷ and R⁷⁸ may alone or together form any of the compounds as defined in claims 34-37.

43. A method according to claim 42, wherein HNR⁷⁷R⁷⁸ is selected from a substituted or unsubstituted pyrrolidine compound, a substituted or unsubstituted piperidine compound, a substituted or unsubstituted piperazine compound, and a substituted or unsubstituted morpholine compound.

44. A method for screening for a SLC2A class I transporter inhibitor compound having a structure as defined in any of claims 34-37, which method comprises

- (a) contacting a receptor having a SLC2A class I transporter function with a test compound;
- (b) measuring the transport of a species across the receptor, which species is one whose transport is facilitated by a SLC2A class I transporter; and
- (c) determining whether the test compound is a SLC2A class I transporter inhibitor from the measurements taken in step (b).

45. A method according to claim 44, which method comprises:

(a) contacting a cell comprising a SLC2A class I transporter with a test compound;

(b) measuring the transport of a species across a membrane of the cell, which species is one whose transport across the membrane is facilitated by a SLC2A class I transporter; and

(c) determining whether the test compound is a SLC2A class I transporter inhibitor from the measurements taken in step (b).

46. A method according to claim 44 or claim 45, wherein the species is selected from a substituted or unsubstituted carbohydrate compound, a substituted or unsubstituted sugar compound, and a mixture of two or more of the above.

47. A method according to claim 46, wherein the species comprises a substituted or unsubstituted glucose, preferably radiolabelled glucose.

48. A method according to any of claims 45-47, wherein the cell is a cell that has been transfected such that it comprises a SLC2A class I transporter at its surface.

49. A compound, composition or method according to any preceding claim, wherein the SLC2A class I transporter is selected from GLUT1, GLUT2, GLUT3, GLUT4 and GLUT14.