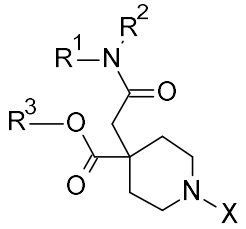
remains an unmet need for $AT_2R$ antagonists having desirable clinical properties to provide alternative therapies for treating pain disorders, such as osteoarthritis (OA) pain, or diabetic peripheral neuropathy pain (DPNP), chronic low back pain (CLBP), or other forms of chronic pain.

## SUMMARY

The present disclosure provides compounds, pharmaceutically acceptable salts thereof, and compositions thereof, useful in the treatment of pain associated with $AT_2R$ activity, including methods of preparing the compounds and compositions thereof, and methods of using the compounds and compositions in the treatment of pain.

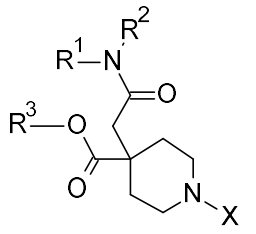
The present disclosure provides a compound of formula (I):



(I)

or a pharmaceutically acceptable salt thereof, wherein $R^1$, $R^2$, $R^3$, and X are as described herein.

In an aspect, the present disclosure provides a compound of formula (I):



(I),

wherein:

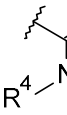
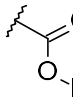
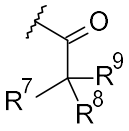
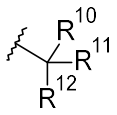
$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^3$ is H or $C_1$-$C_6$ alkyl;

X is $C_5$-$C_{10}$ heteroaryl, $C_6$-$C_{10}$ aryl, , , , or , wherein the $C_5$-$C_{10}$ heteroaryl or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $X^a$;

each $X^a$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^6$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl;

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl, wherein $R^8$ and $R^9$ may alternatively come together to form a $C_3$-$C_6$ cycloalkyl;

$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl,

or a pharmaceutically acceptable salt thereof.

In some examples, a compound of the present disclosure is selected from the examples described in Table I, or stereoisomers thereof, or pharmaceutically acceptable salts thereof.

In some examples, a compound of the present disclosure is selected from the examples described in Table I, or pharmaceutically acceptable salts thereof.

In some examples, a compound of the present disclosure is selected from the examples described in Table I.

The present disclosure provides a pharmaceutical composition comprising a compound, and/or salt of a compound of the present disclosure, and a pharmaceutically acceptable carrier, diluent, or excipient.

In another aspect, the present disclosure provides a pharmaceutical composition comprising a compound of the present disclosure, or a pharmaceutically acceptable salt thereof, and one or more pharmaceutically acceptable carrier, diluent, or excipient.

In some examples, the present disclosure provides a pharmaceutical composition comprising a compound of the present disclosure, and a pharmaceutically acceptable carrier, diluent, or excipient.

In some examples, the present disclosure provides a pharmaceutical composition comprising a salt of a compound of the present disclosure, and a pharmaceutically acceptable carrier, diluent, or excipient.

In some examples, the present disclosure provides a method of treating pain comprising administering to a subject in need thereof a therapeutically effective amount of a compound of the present disclosure, or a pharmaceutically acceptable salt thereof.

In another aspect, the present disclosure provides a compound of the present disclosure, or a pharmaceutically acceptable salt thereof, for use in treating pain.

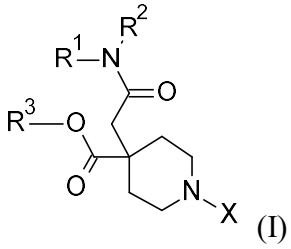
In another aspect, the present disclosure provides a use of the compound of the present disclosure, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament, for the treatment of pain.

In another aspect, the present disclosure provides a compound of the present disclosure, or a pharmaceutically acceptable salt thereof, for use in therapy.

## DETAILED DESCRIPTION

The present disclosure relates to compounds, pharmaceutically acceptable salts, and stereoisomers thereof, useful in the treatment of a pain associated with $AT_2R$ activity, including methods of preparing the compounds, compositions comprising the compounds, and methods of using the compounds (e.g., in the treatment of pain).

The present disclosure provides a compound of formula (I):

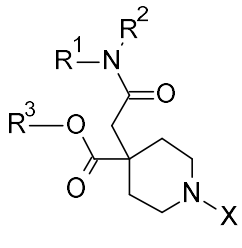



(I)

wherein:

WE CLAIM:

1. A compound of formula (I):


(I),

wherein:

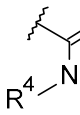
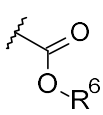
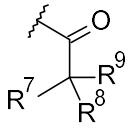
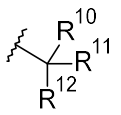
$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^3$ is H or $C_1$-$C_6$ alkyl;

X is $C_5$-$C_{10}$ heteroaryl, $C_6$-$C_{10}$ aryl, , , , or , wherein the $C_5$-$C_{10}$ heteroaryl or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $X^a$;

each $X^a$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^6$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl;

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl, wherein $R^8$ and $R^9$ may alternatively come together to form a $C_3$-$C_6$ cycloalkyl;

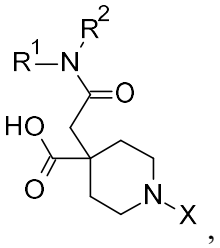
$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl,

or a pharmaceutically acceptable salt thereof.

2. The compound of claim 1, wherein the compound is of formula,




,

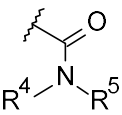
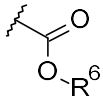
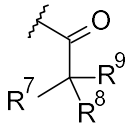
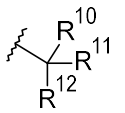
wherein:

$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

X is $C_5$-$C_{10}$ heteroaryl, $C_6$-$C_{10}$ aryl, , , , or , wherein the $C_5$-$C_{10}$ heteroaryl or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $X^a$;

each $X^a$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^6$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl;

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl; or

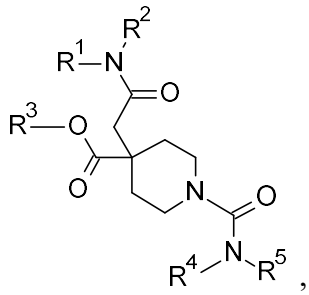
$R^8$ and $R^9$ together form a $C_3$-$C_6$ cycloalkyl;

$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

3. The compound of claim 1, wherein the compound is of formula,



wherein:

$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^3$ is H or $C_1$-$C_6$ alkyl;

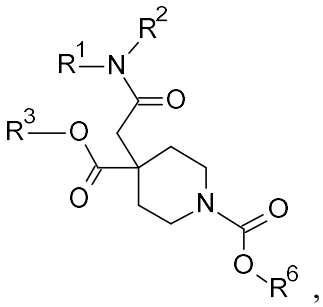
$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$; and

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

4. The compound of claim 1, wherein the compound is of formula,



wherein:

$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

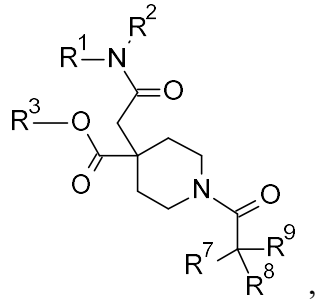
$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^3$ is H or $C_1$-$C_6$ alkyl; and

$R^6$ is H or $C_1$-$C_6$ alkyl; or a pharmaceutically acceptable salt thereof.

5. The compound of claim 1, wherein the compound is of formula,



wherein:

$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^3$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

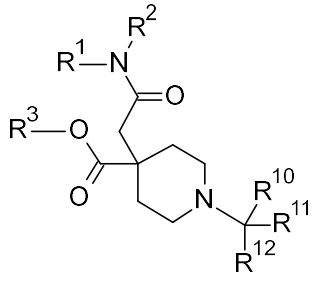
each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl; and

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl; or

$R^8$ and $R^9$ together form a $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

6. The compound of claim 1, wherein the compound is of formula,



,

wherein:

$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

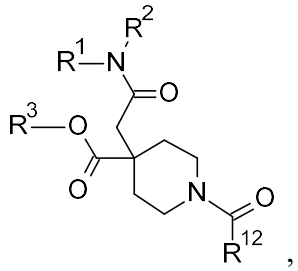
$R^3$ is H or $C_1$-$C_6$ alkyl;

$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

7. The compound of claim 1, wherein the compound is of formula,



,

wherein:

$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

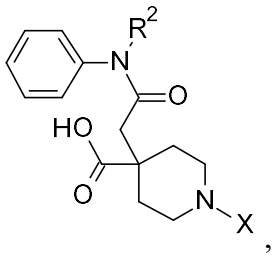
each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^3$ is H or $C_1$-$C_6$ alkyl;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

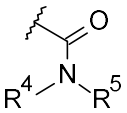
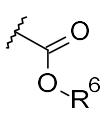
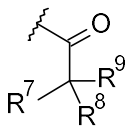
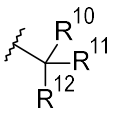
8. The compound of claim 1, wherein the compound is of formula,



wherein:

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

X is $C_5$-$C_{10}$ heteroaryl, $C_6$-$C_{10}$ aryl, , , , or , wherein the $C_5$-$C_{10}$ heteroaryl or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $X^a$;

each $X^a$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^6$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl;

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl; or

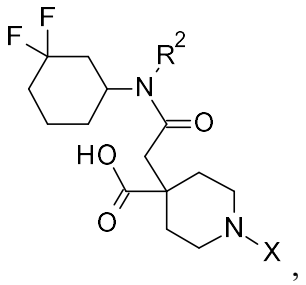
$R^8$ and $R^9$ together form a $C_3$-$C_6$ cycloalkyl;

$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

9. The compound of claim 1, wherein the compound is of formula,

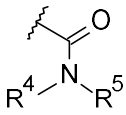
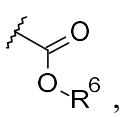
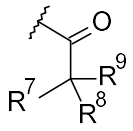



,

wherein:

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

X is $C_5$-$C_{10}$ heteroaryl, $C_6$-$C_{10}$ aryl,  ,  ,  , or  , wherein the $C_5$-$C_{10}$ heteroaryl or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $X^a$;

each $X^a$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^6$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl;

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl; or

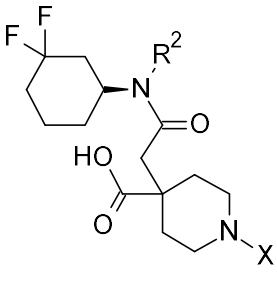
$R^8$ and $R^9$ together form a $C_3$-$C_6$ cycloalkyl;

$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

10. The compound of claim 1, wherein the compound is of formula,

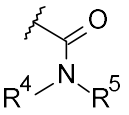
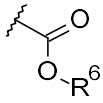
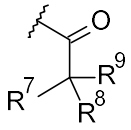
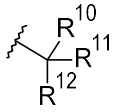


(Ih-a)

wherein:

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

X is $C_5$-$C_{10}$ heteroaryl, $C_6$-$C_{10}$ aryl,  ,  ,  , or  , wherein the $C_5$-$C_{10}$ heteroaryl or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $X^a$;

each $X^a$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^6$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl;

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl; or

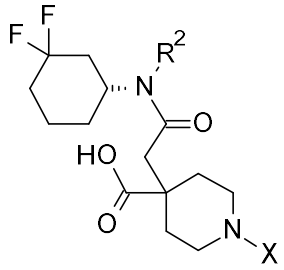
$R^8$ and $R^9$ together form a $C_3$-$C_6$ cycloalkyl;

$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

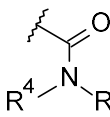
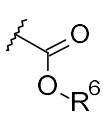
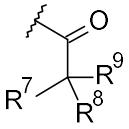
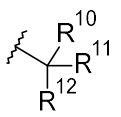
11. The compound of claim 1, wherein the compound is of formula,



wherein:

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

X is $C_5$-$C_{10}$ heteroaryl, $C_6$-$C_{10}$ aryl, , , , or , wherein the $C_5$-$C_{10}$ heteroaryl or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $X^a$;

each $X^a$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^6$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl;

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl; or

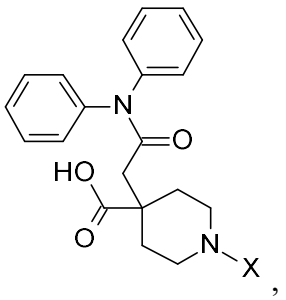
$R^8$ and $R^9$ together form a $C_3$-$C_6$ cycloalkyl;

$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

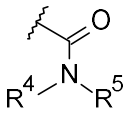
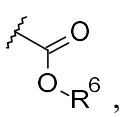
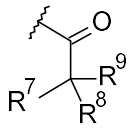
each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

12. The compound of claim 1, wherein the compound is of formula,




,

wherein:

X is $C_5$-$C_{10}$ heteroaryl, $C_6$-$C_{10}$ aryl,  ,  ,  , or  , wherein the $C_5$-$C_{10}$ heteroaryl or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $X^a$;

each $X^a$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^4$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^5$ is H, $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^6$ is H or $C_1$-$C_6$ alkyl;

$R^7$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is halogen, cyano, or $C_3$-$C_6$ cycloalkyl;

$R^8$ is H, halogen, or $C_1$-$C_6$ alkyl;

$R^9$ is H, halogen, or $C_1$-$C_6$ alkyl; or

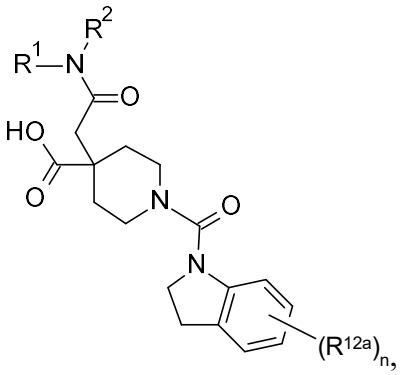
$R^8$ and $R^9$ together form a $C_3$-$C_6$ cycloalkyl;

$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

$R^{12}$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_6$-$C_{10}$ aryl, $C_1$-$C_3$-(phenyl), or $C_3$-$C_{10}$ heterocycloalkyl is optionally substituted with one or more $R^{12a}$; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

13. The compound of claim 1, wherein the compound is of formula,



wherein:

n is 0, 1, or 2;

$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

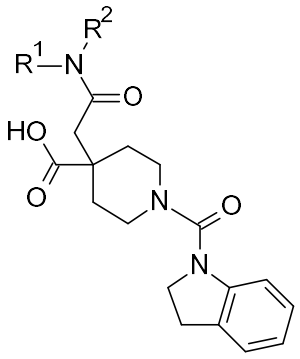
each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; and

each $R^{12a}$ independently is halogen, cyano, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

14. The compound of claim 1, wherein the compound is of formula,



,

wherein:

$R^1$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl;

$R^2$ is $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl, wherein the $C_1$-$C_6$ alkyl, $C_3$-$C_6$ cycloalkyl, $C_3$-$C_9$ heterocycloalkyl, or $C_6$-$C_{10}$ aryl is optionally substituted with one or more $R^{2a}$; and

each $R^{2a}$ independently is halogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ alkoxyl, or $C_3$-$C_6$ cycloalkyl; or a pharmaceutically acceptable salt thereof.

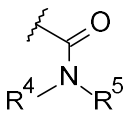
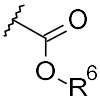
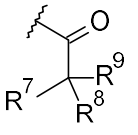
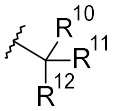
15. The compound of claim 1 or 2, wherein:

$R^1$ is methyl, ethyl, propyl, butan-2-yl, pentyl, 3-methylbutan-2-yl, cyclopropyl, cyclopentyl, cyclohexyl, tetrahydropyranyl, or phenyl, wherein the methyl, ethyl, propyl, butan-2-yl, pentyl, 3-methylbutan-2-yl, cyclopropyl, cyclopentyl, cyclohexyl, tetrahydropyranyl, or phenyl is optionally substituted with one or more $R^{1a}$;

each $R^{1a}$ independently is fluorine, chlorine, methyl, isopropyl, methoxyl, or cyclopropyl;

$R^2$ is methyl, ethyl, propyl, butan-2-yl, pentyl, 3-methylbutan-2-yl, cyclopropyl, cyclopentyl, cyclohexyl, tetrahydropyranyl, or phenyl, wherein the methyl, ethyl, propyl, butan-2-yl, pentyl, 3-methylbutan-2-yl, cyclopropyl, cyclopentyl, cyclohexyl, tetrahydropyranyl, or phenyl is optionally substituted with one or more $R^{2a}$;

each $R^{2a}$ independently is fluorine, chlorine, methyl, isopropyl, methoxyl, or cyclopropyl;

X is triazolyl, pyrimidinyl, pyridinyl, phenyl, , , , or , wherein the triazolyl, pyrimidinyl, pyridinyl, phenyl is optionally substituted with one or more $X^a$;

each $X^a$ independently is bromine, pentyl, or cyclopropyl;

$R^4$ is methyl, ethyl, isopropyl, pentyl, cyclopentyl, or phenyl, wherein the methyl, ethyl, isopropyl, pentyl, cyclopentyl, or phenyl is optionally substituted with one or more $R^{4a}$;

each $R^{4a}$ independently is fluorine, methyl, methoxyl, or cyclopropyl;

$R^5$ is methyl, ethyl, isopropyl, pentyl, cyclopentyl, or phenyl, wherein the methyl, ethyl, isopropyl, pentyl, cyclopentyl, or phenyl is optionally substituted with one or more $R^{5a}$;

each $R^{5a}$ independently is fluorine, methyl, methoxyl, or cyclopropyl

$R^6$ is tert-butyl;

$R^7$ is phenyl optionally substituted with one or more $R^{7a}$;

each $R^{7a}$ independently is fluorine;

$R^8$ is H, F, or methyl;

$R^9$ is H, F, or methyl; or

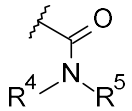
$R^8$ and $R^9$ together form cyclopropyl;

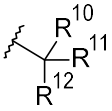
$R^{10}$ and $R^{11}$ are each H or $R^{10}$ and $R^{11}$ together form an oxo;

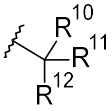
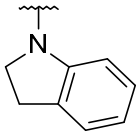
$R^{12}$ is pyridyl, indolinyl, tetrahydroquinolinyl, phenyl, or isopropyl-phenyl, wherein the pyridyl, indolinyl, tetrahydroquinolinyl, phenyl, or isopropyl-phenyl is optionally substituted with one or more $R^{12a}$; and

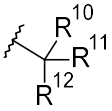
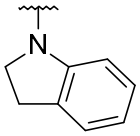
each $R^{12a}$ independently is fluorine, cyano, isopropyl, methoxyl, or cyclopropyl; or a pharmaceutically acceptable salt thereof.

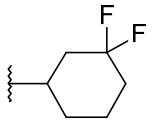
16. The compound of claim 1 or 2, wherein $R^1$ is phenyl and $R^2$ is phenyl, or a pharmaceutically acceptable salt thereof.

17. The compound of claim 1 or 2, wherein X is , $R^4$ is phenyl, and $R^5$ is methyl, or a pharmaceutically acceptable salt thereof.

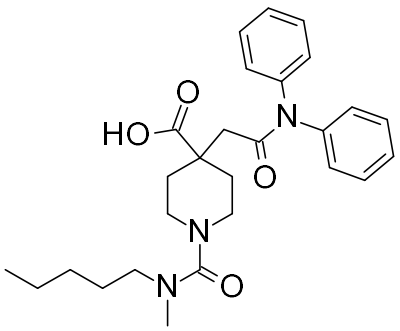
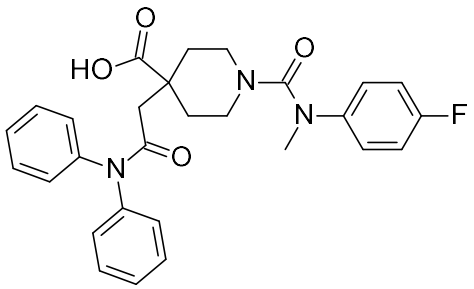
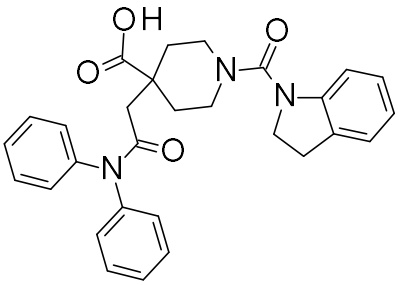
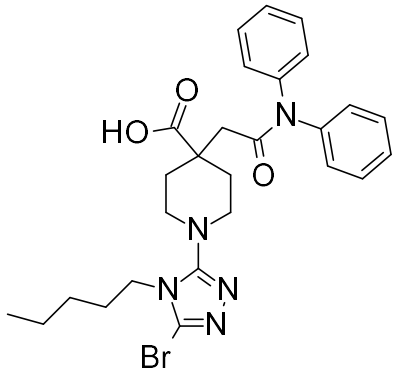
18. The compound of claim 1 or 2, wherein X is  and $R^{10}$ and $R^{11}$ together form an oxo, or a pharmaceutically acceptable salt thereof.

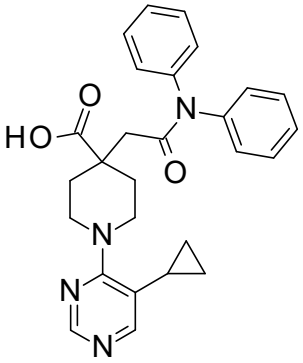
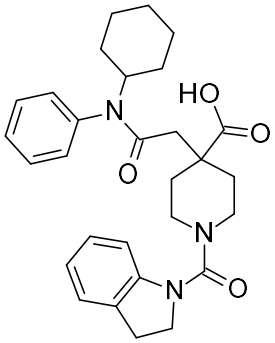
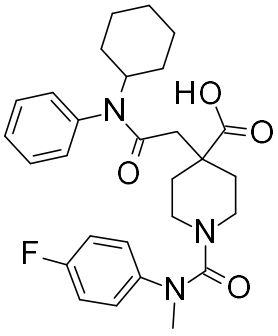
19. The compound of claim 1 or 2, wherein X is  and $R^{12}$ is , or a pharmaceutically acceptable salt thereof.

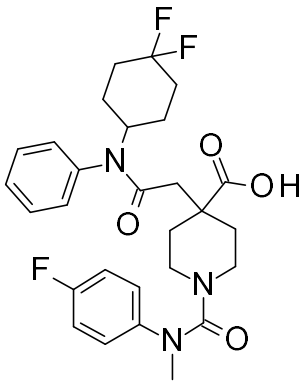
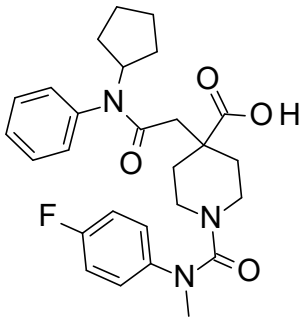
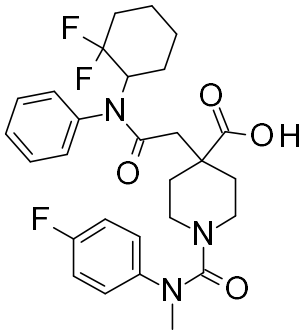
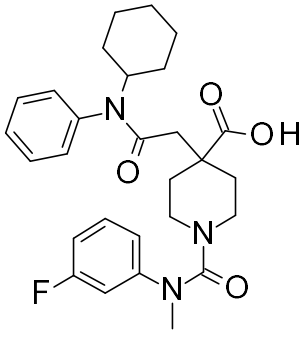
20. The compound of claim 1 or 2, wherein X is , $R^{10}$ and $R^{11}$ together form an oxo, and $R^{12}$ is , or a pharmaceutically acceptable salt thereof.

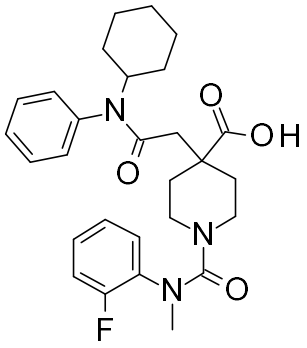
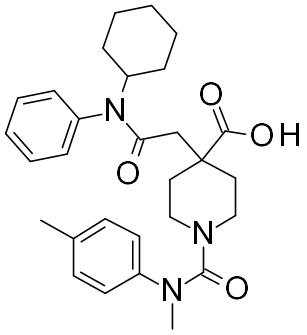
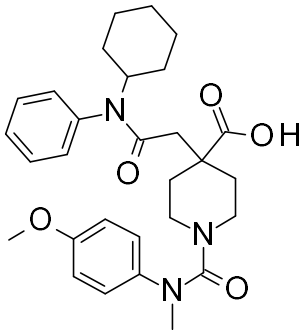
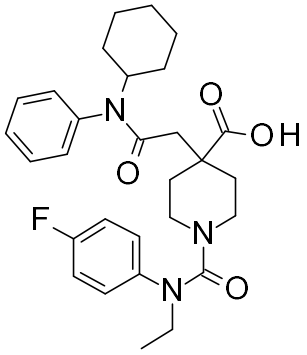
21. The compound of claim 1 or 2, wherein at least one of $R^1$ and $R^2$ are , or a pharmaceutically acceptable salt thereof.

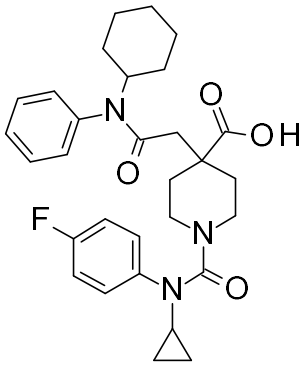
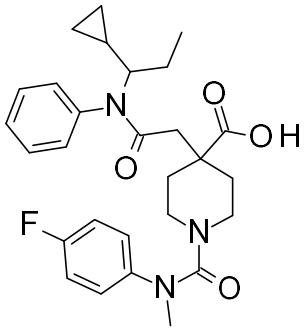
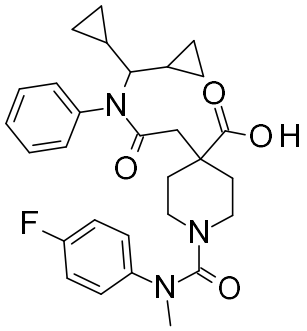
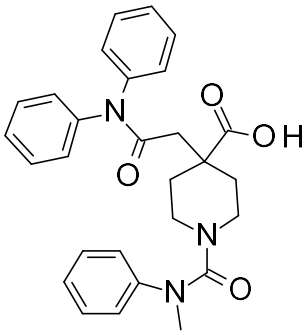
22. The compound of claim 1, wherein the compound is

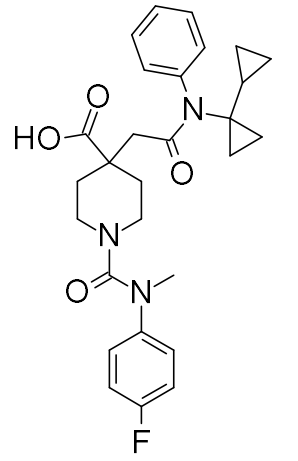
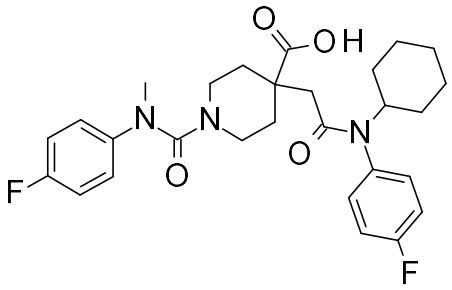
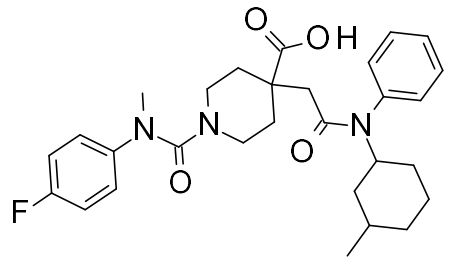
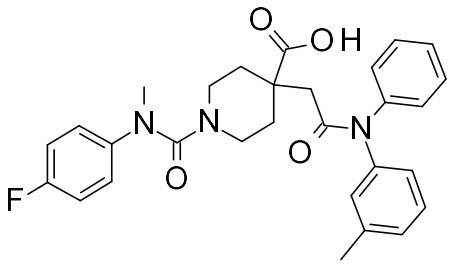
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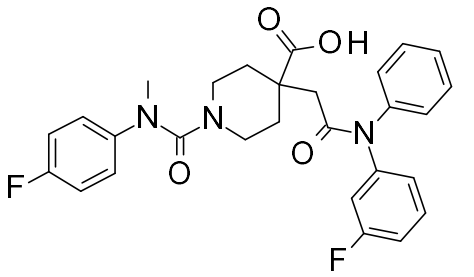
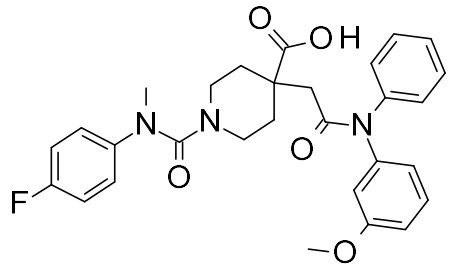
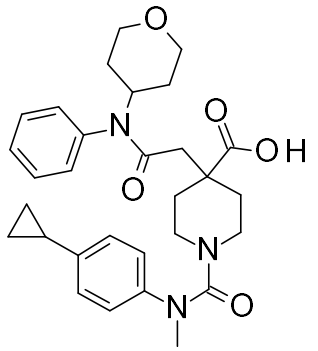
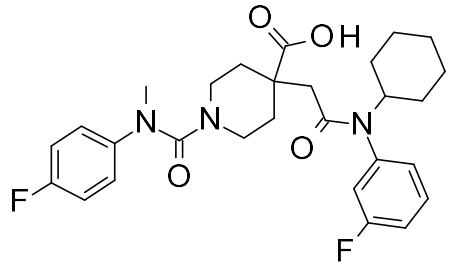
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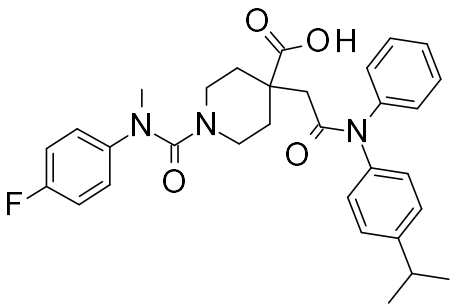
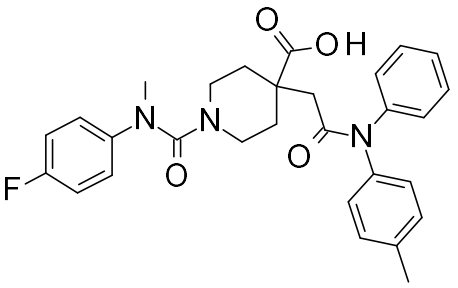
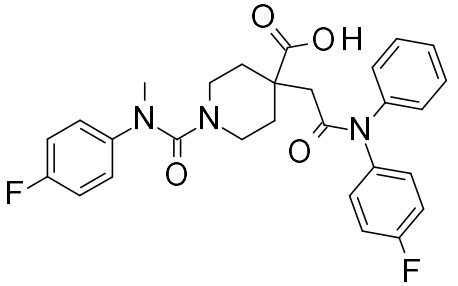
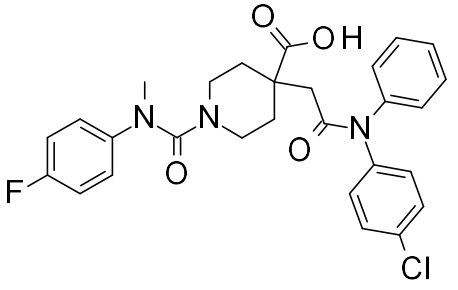
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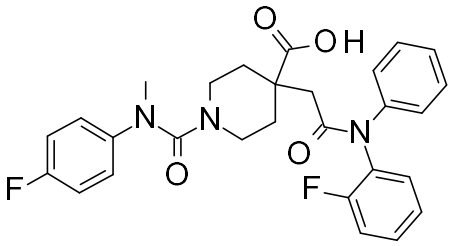
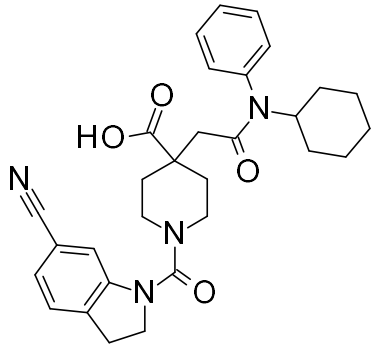
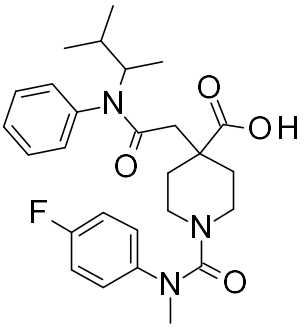
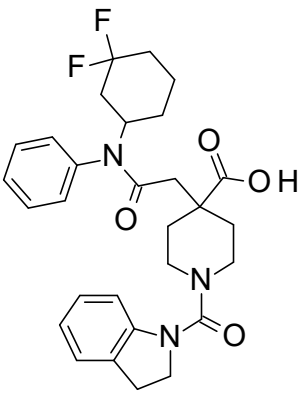
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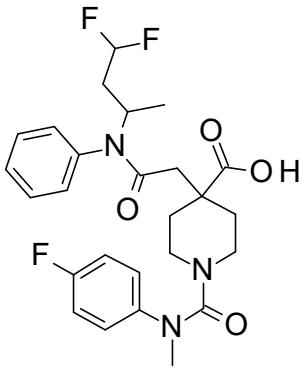
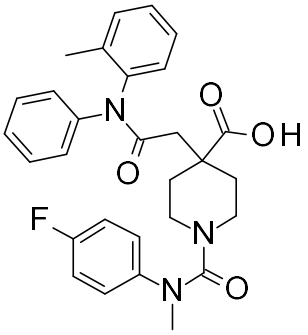
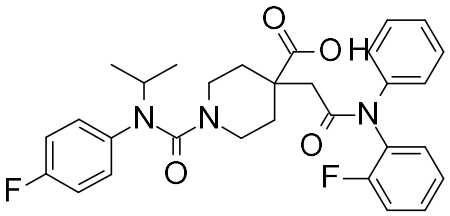
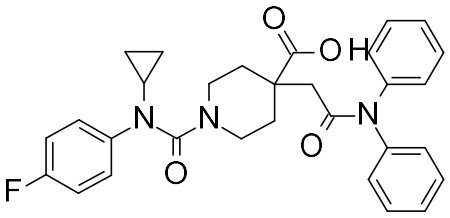
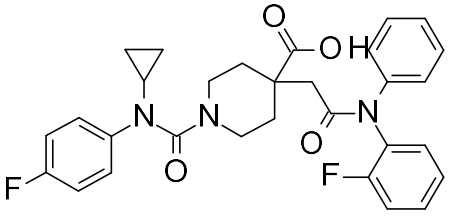
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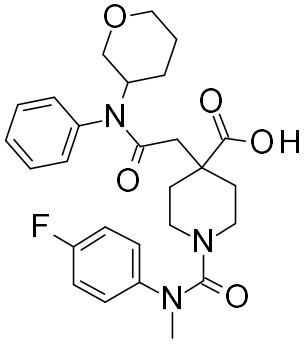
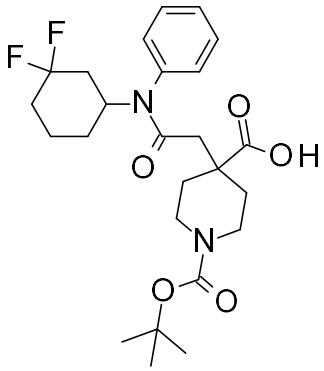
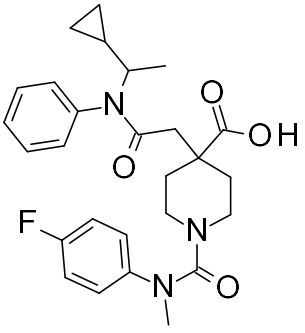
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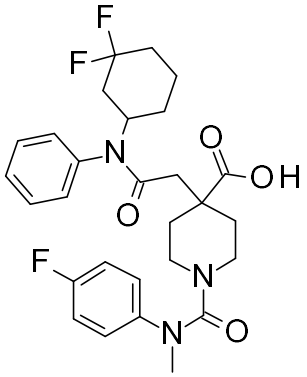
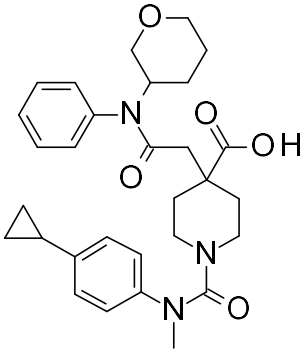
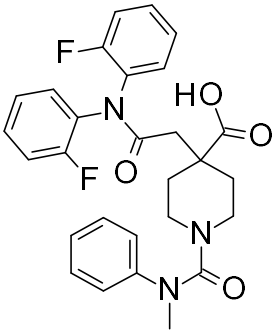
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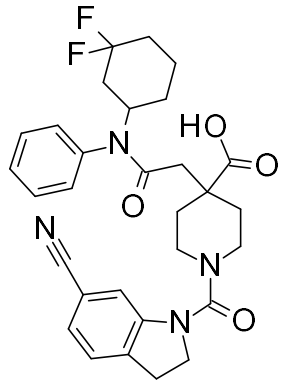
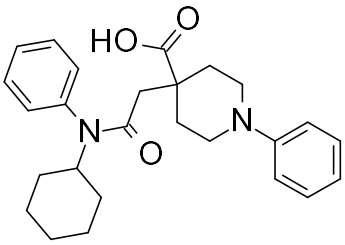
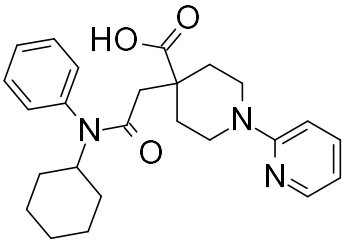
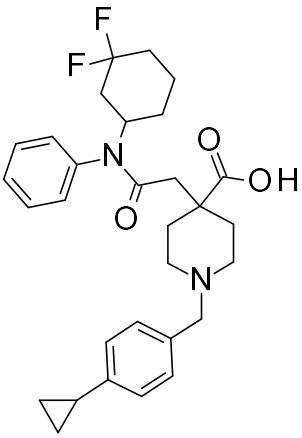
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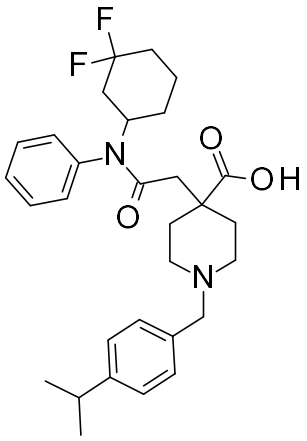
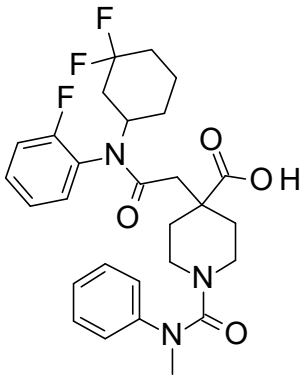
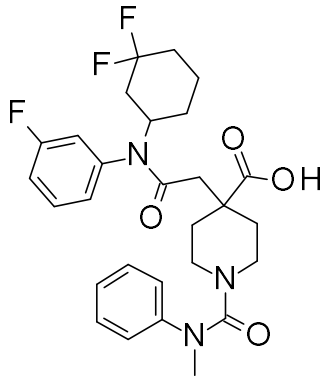
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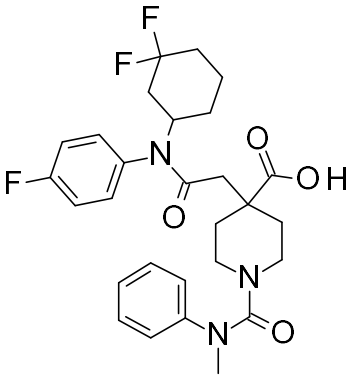
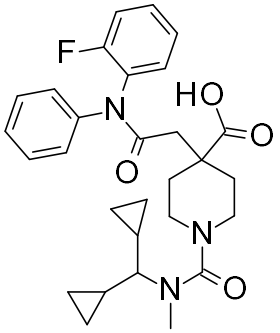
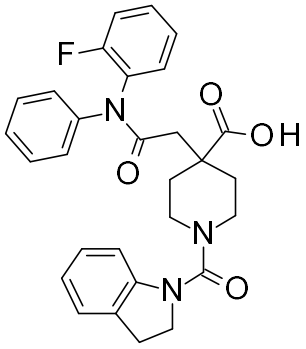
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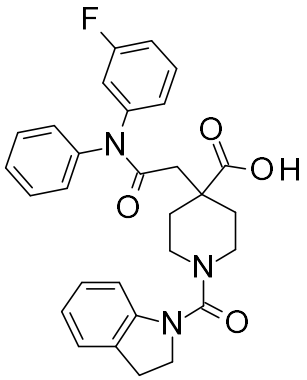
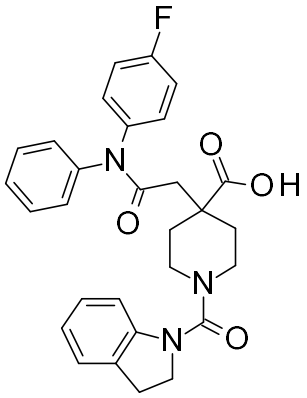
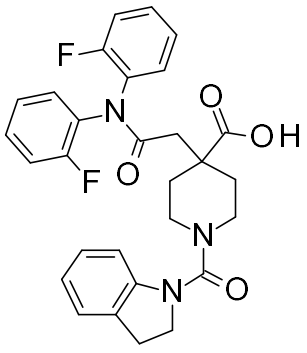
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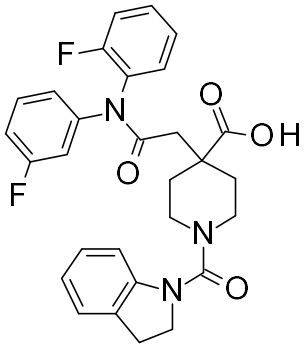
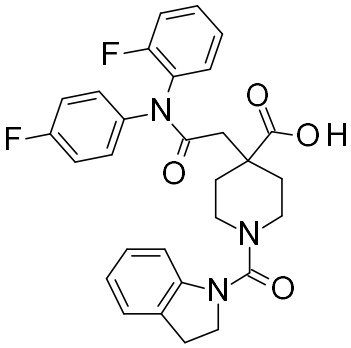
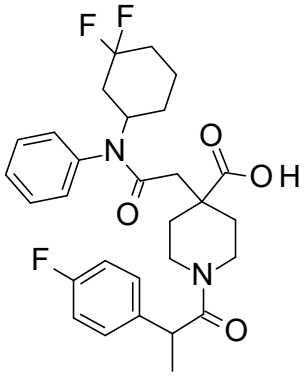
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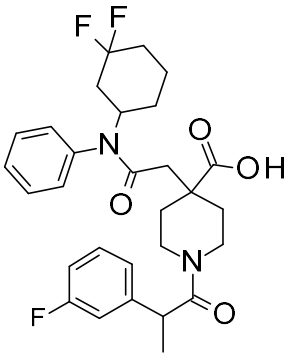
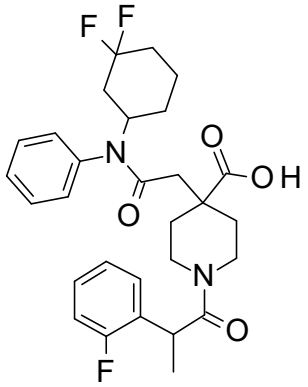
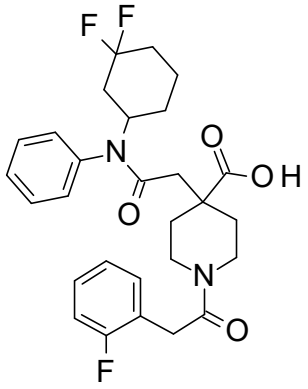
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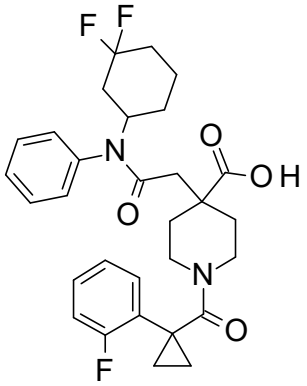
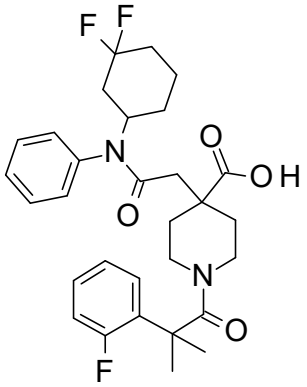
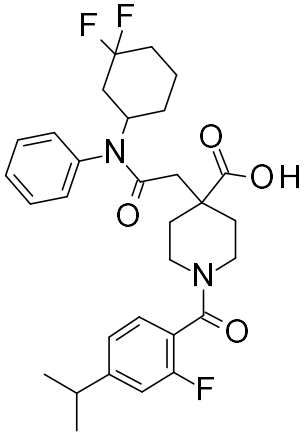
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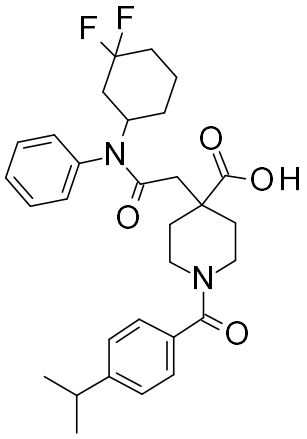
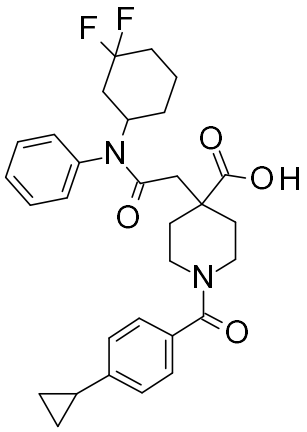
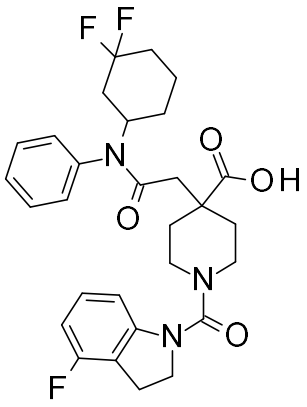
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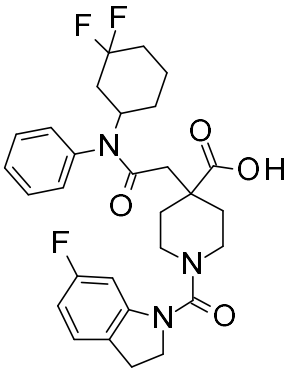
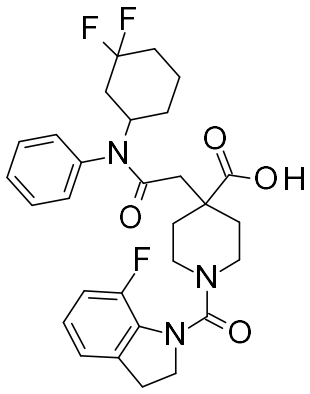
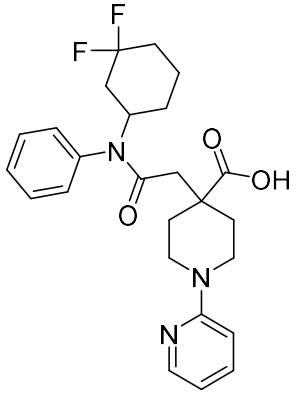
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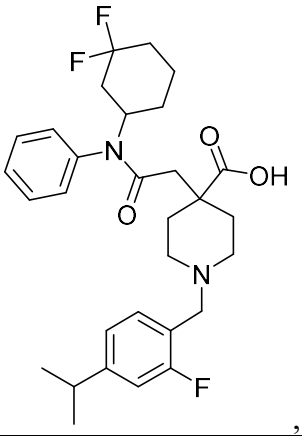
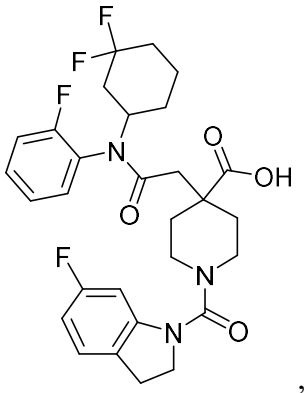
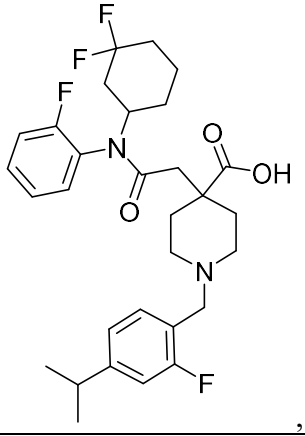
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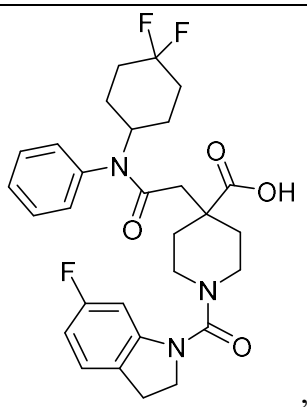
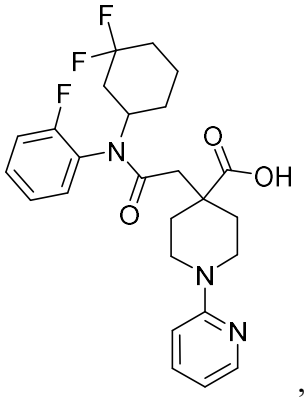
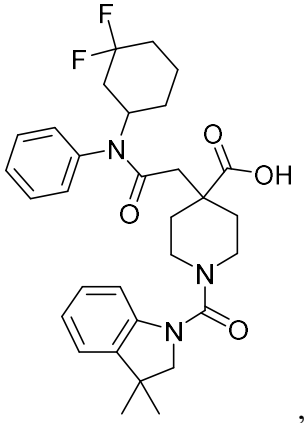
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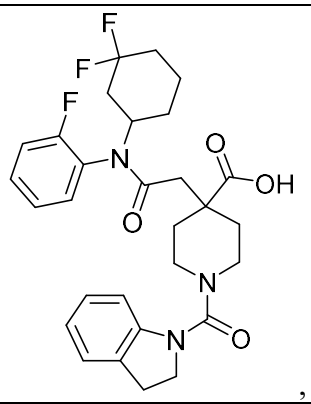
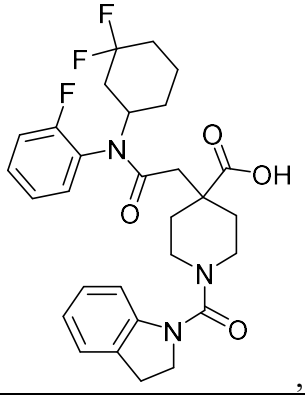
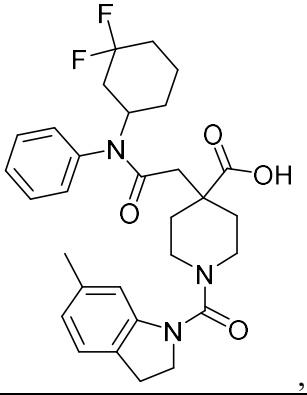
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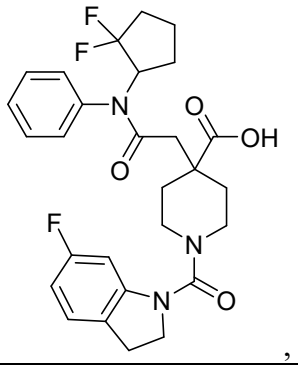
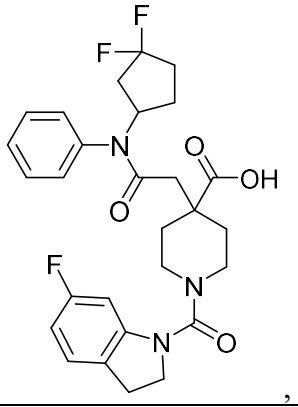
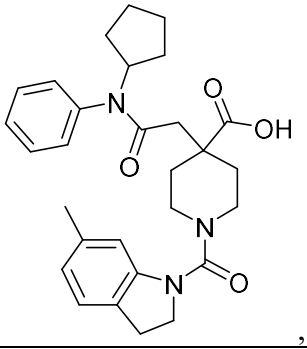
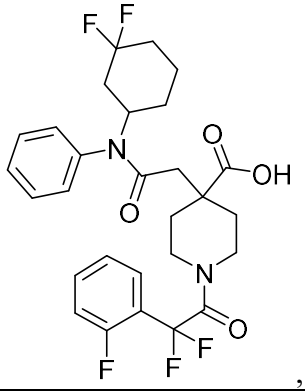
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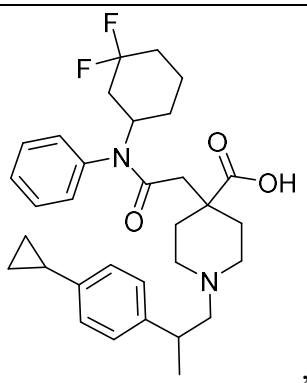
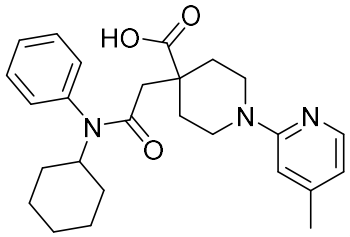
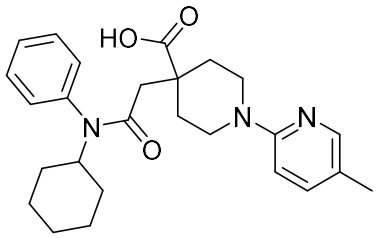
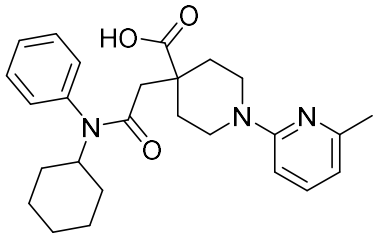
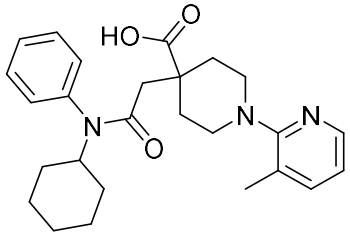
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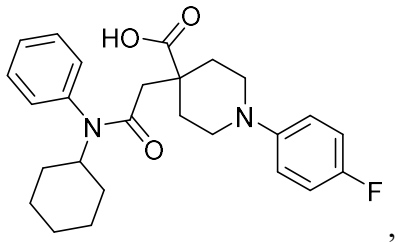
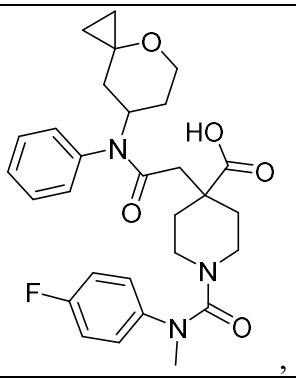
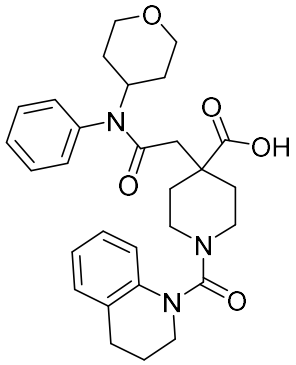
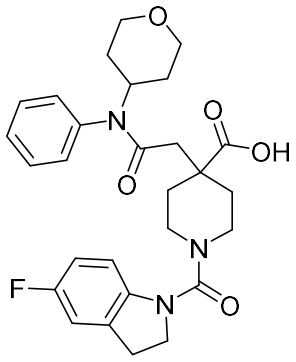
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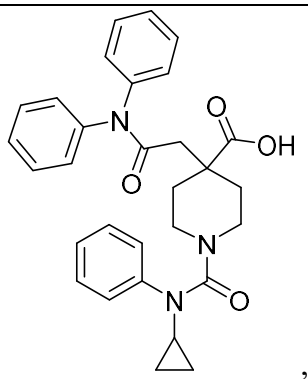
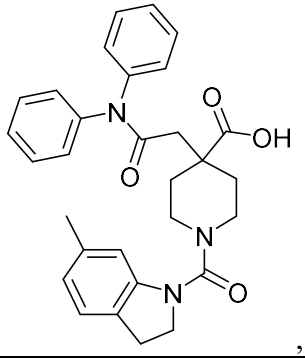
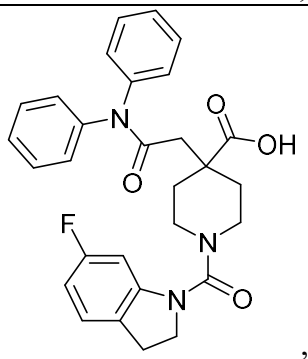
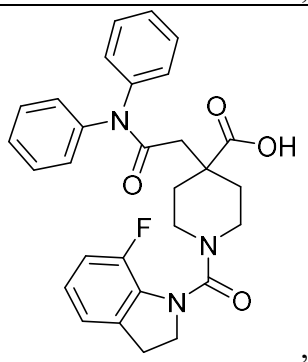
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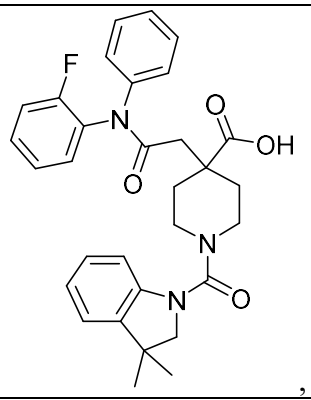
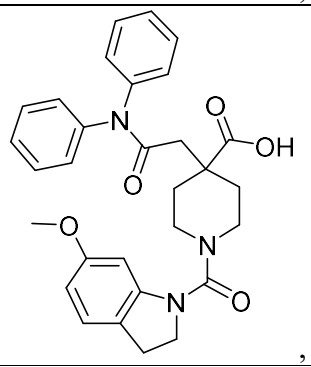
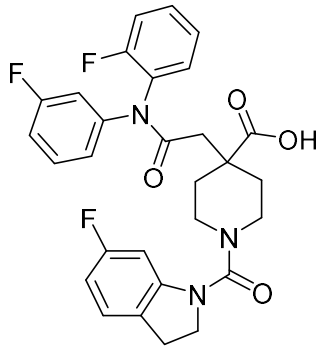
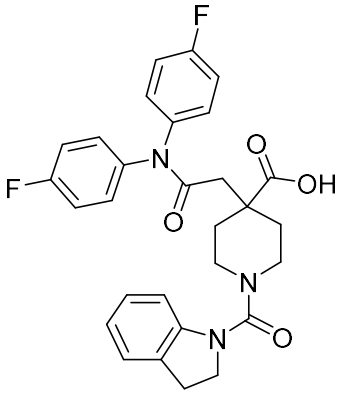
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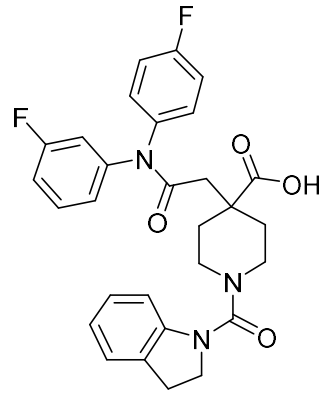
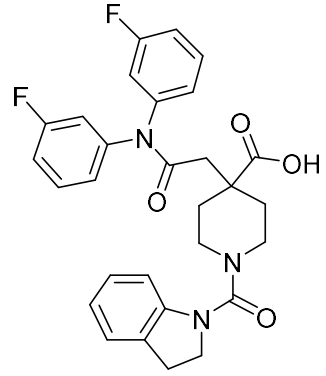
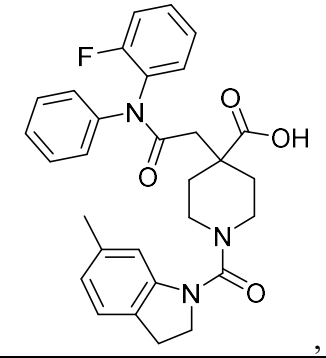
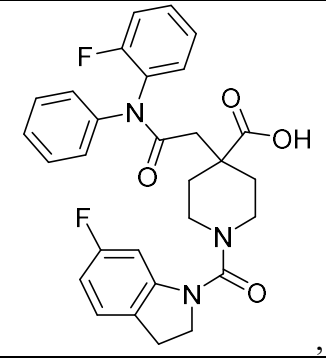
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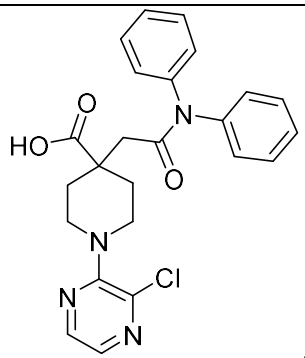
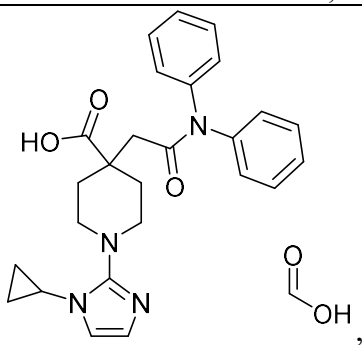
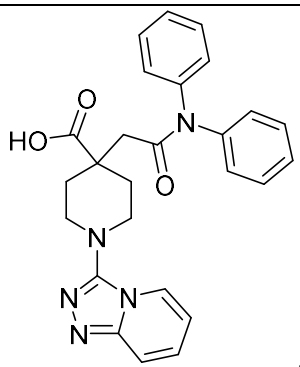
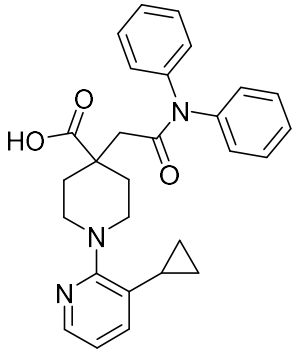
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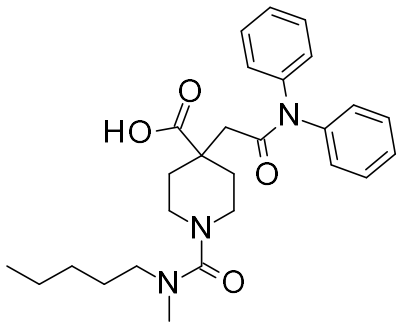
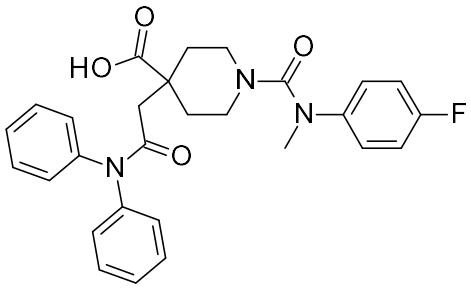
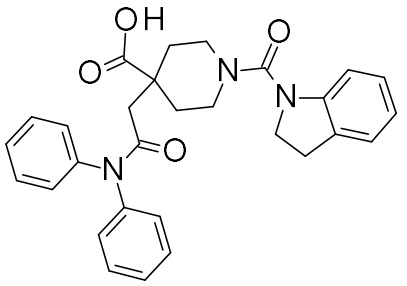
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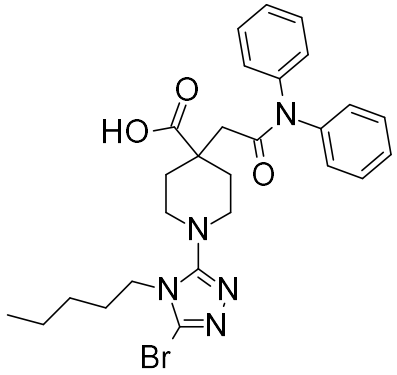
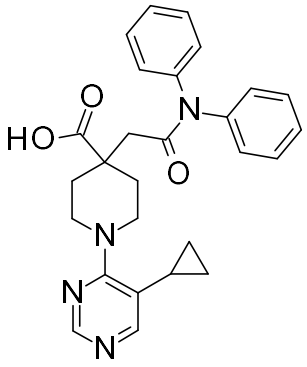
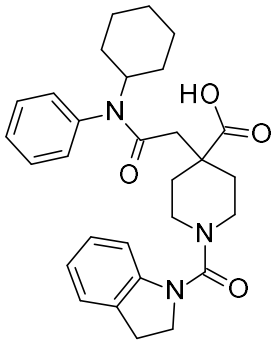
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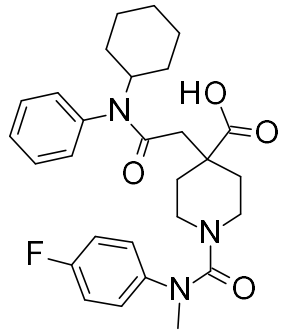
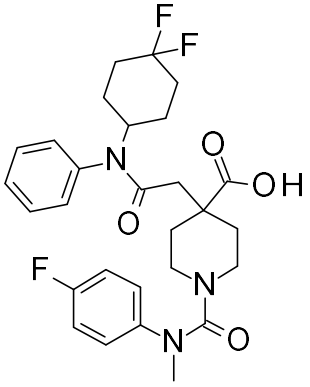
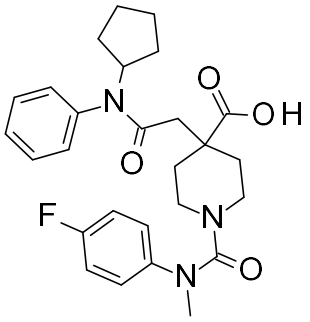
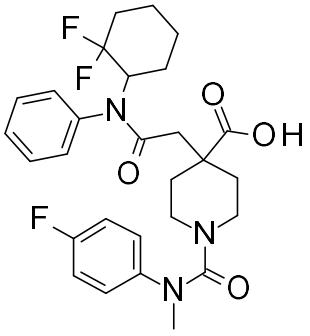
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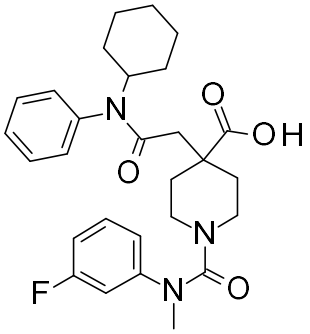
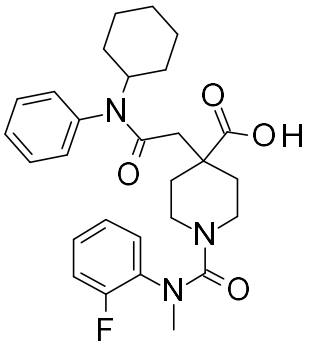
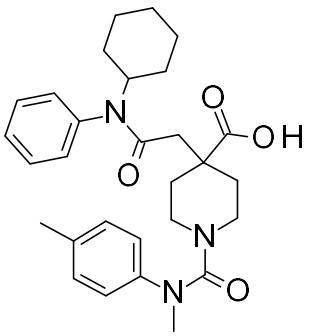
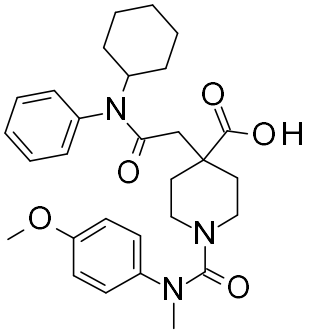
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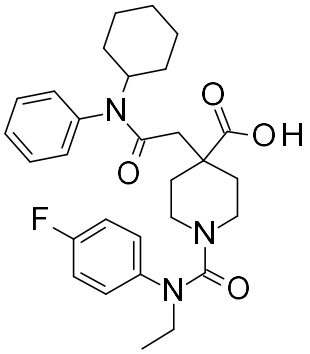
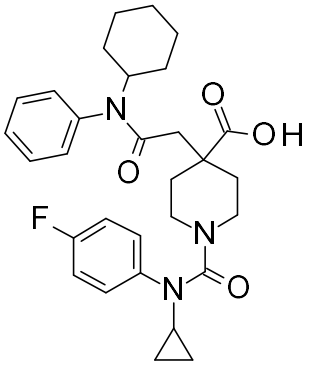
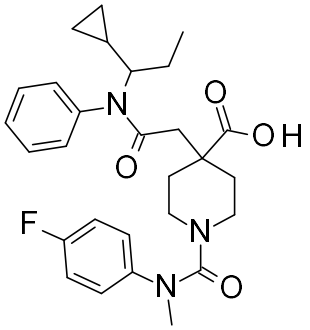
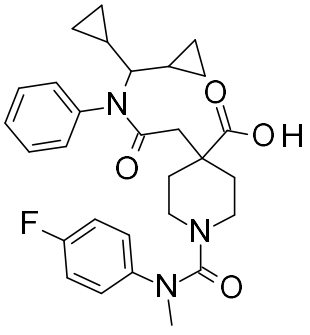
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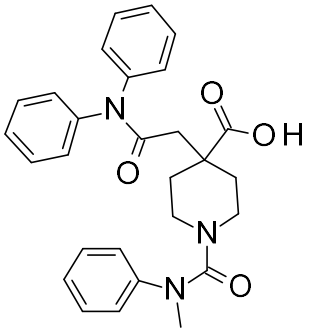
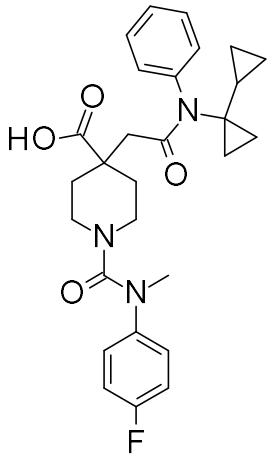
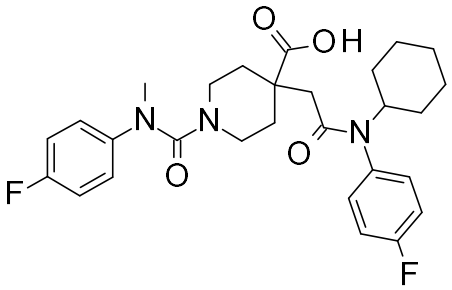
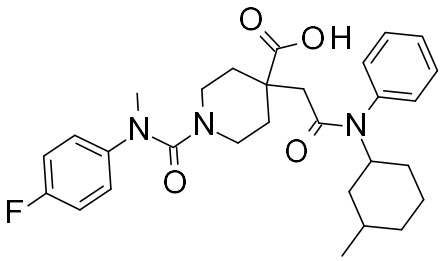
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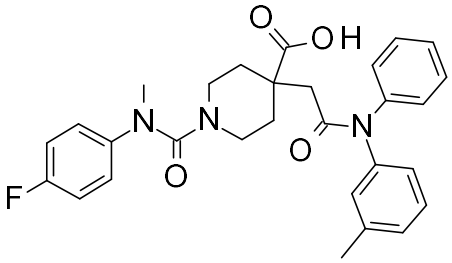
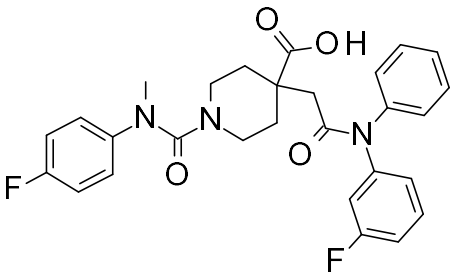
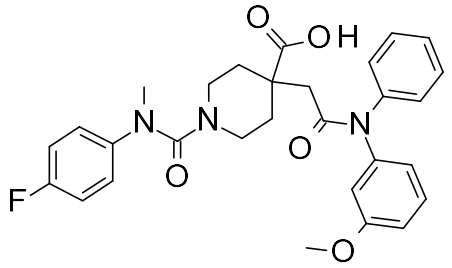
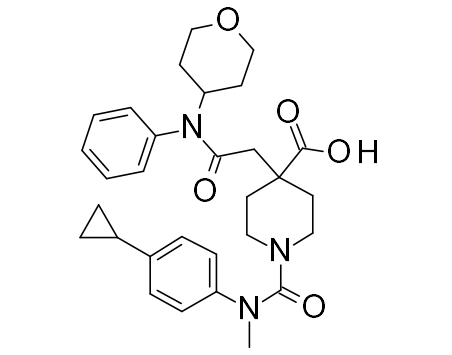
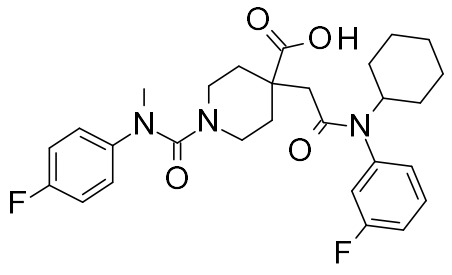
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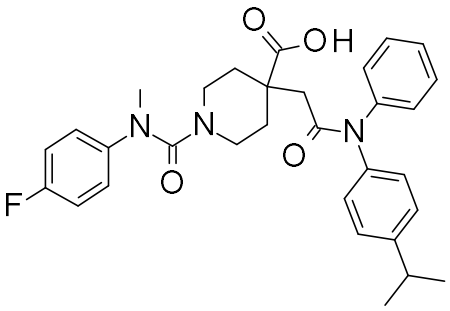
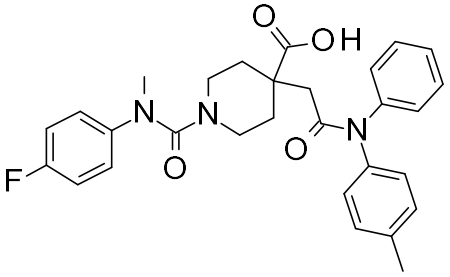
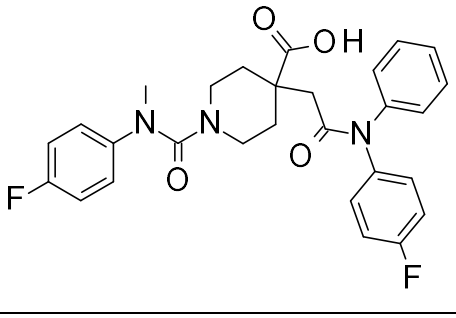
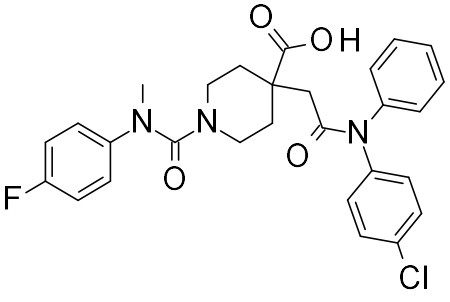
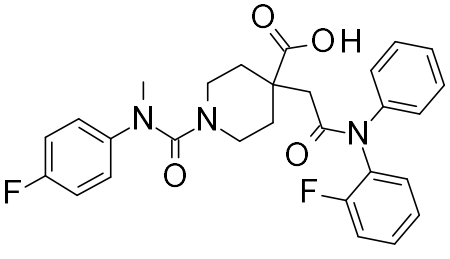
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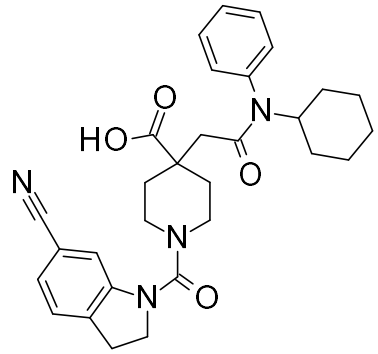
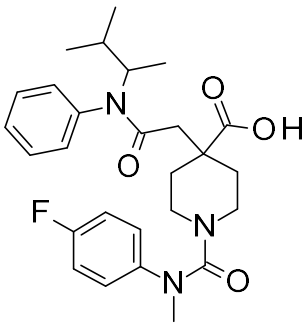
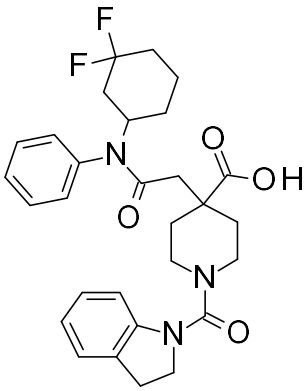
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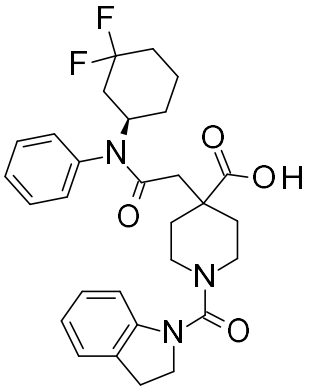
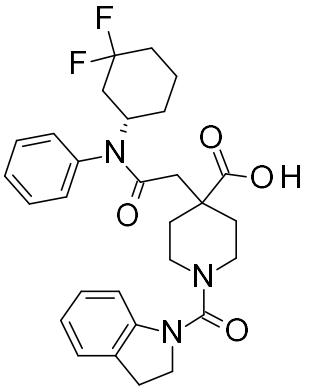
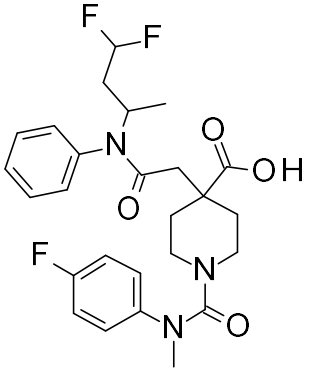
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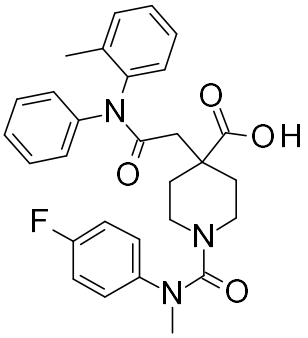
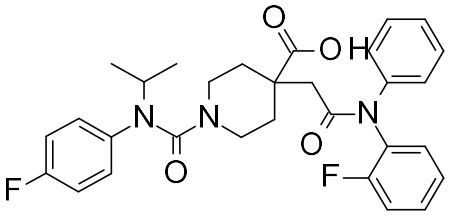
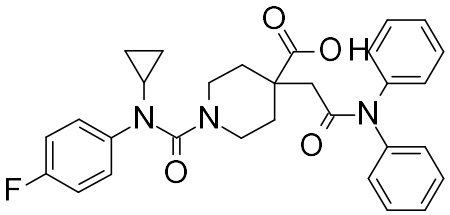
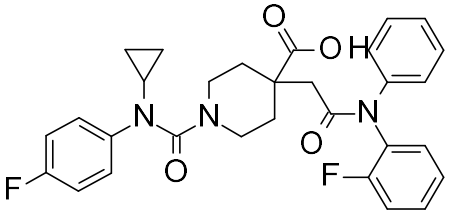
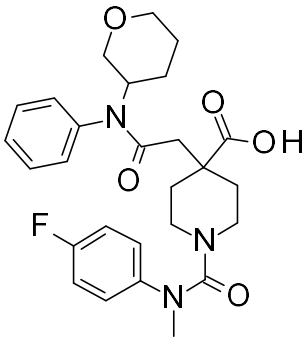
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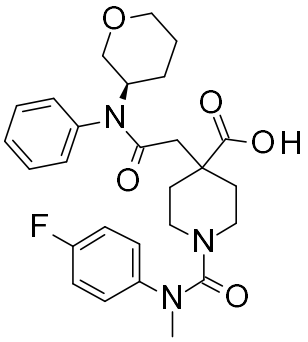
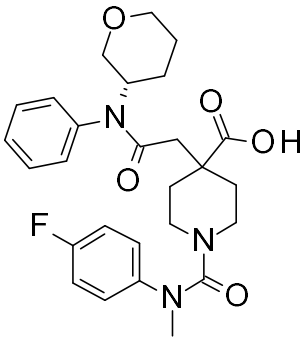
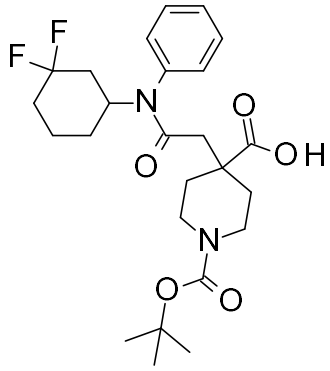
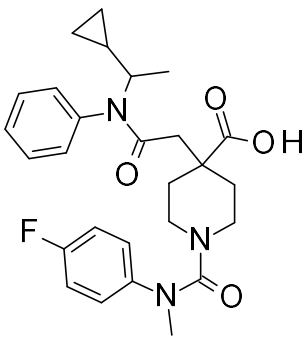
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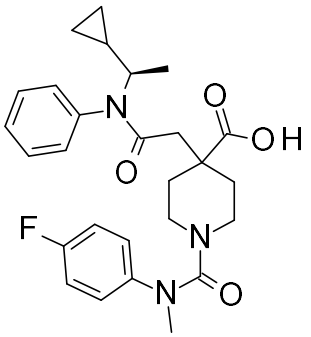
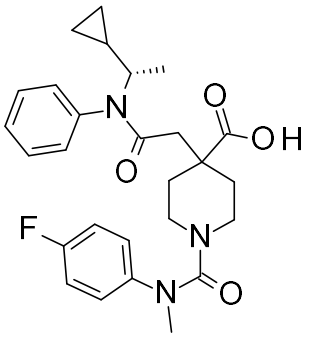
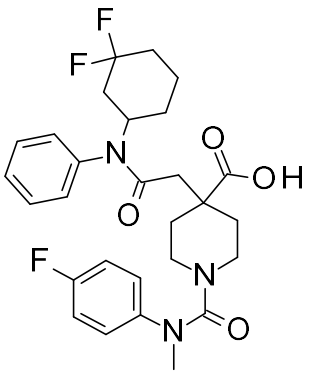
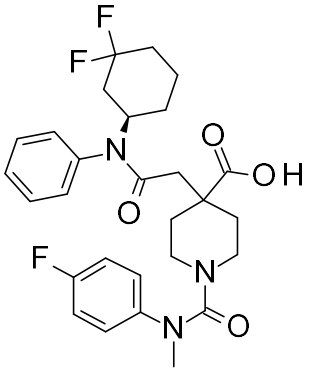
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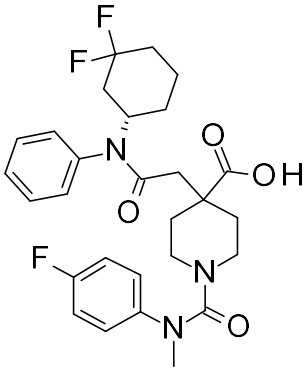
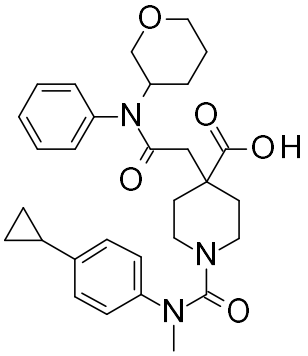
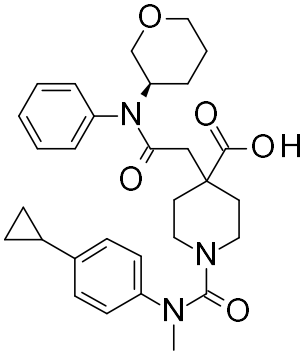
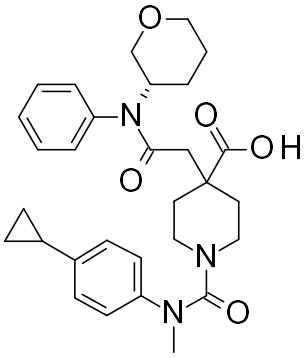
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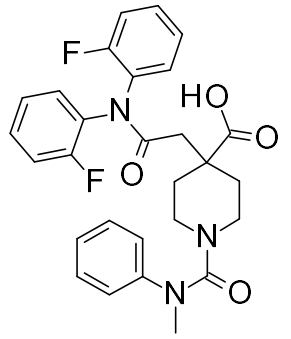
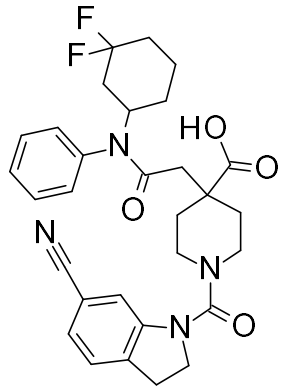
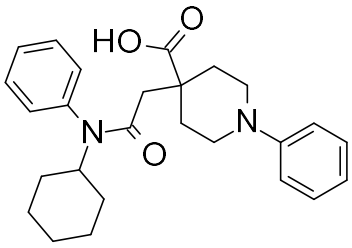
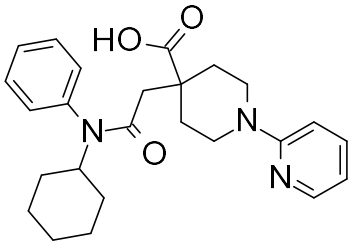
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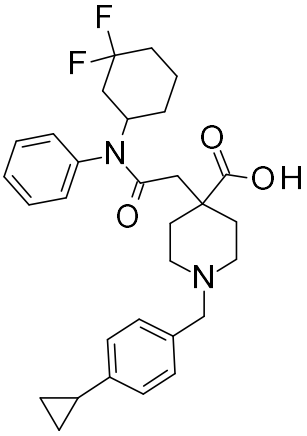
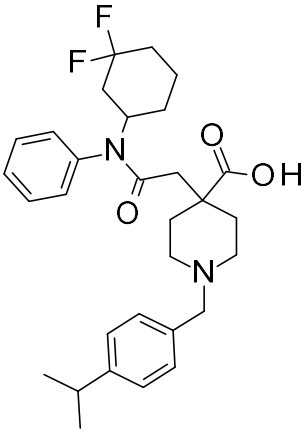
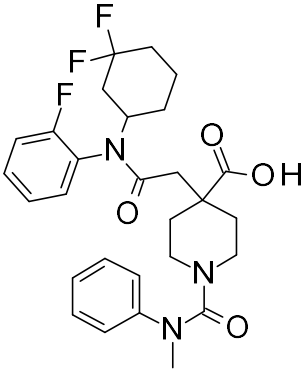
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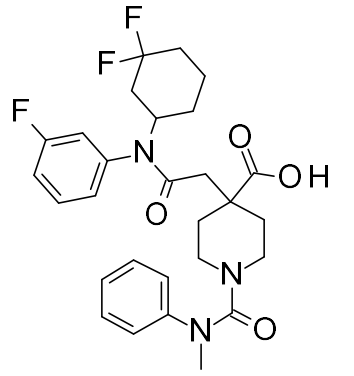
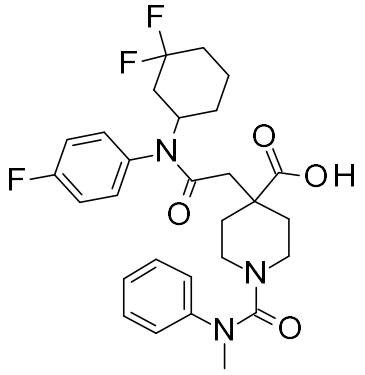
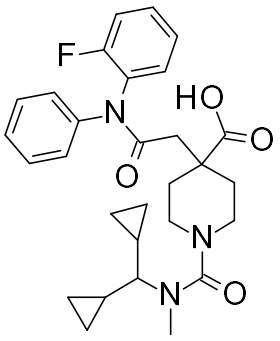
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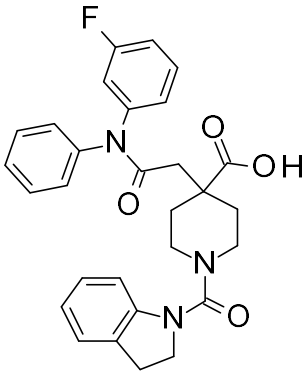
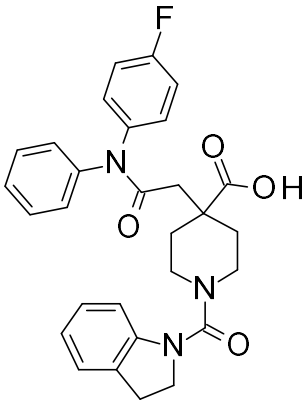
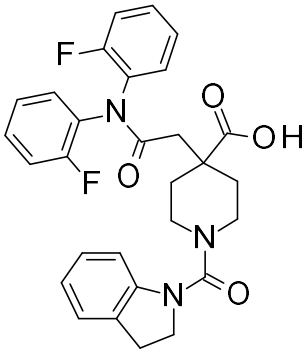
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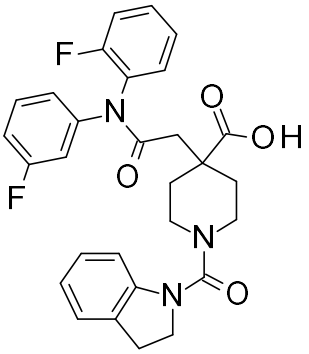
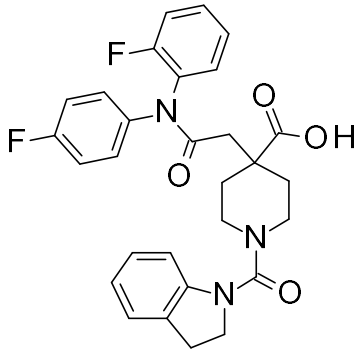
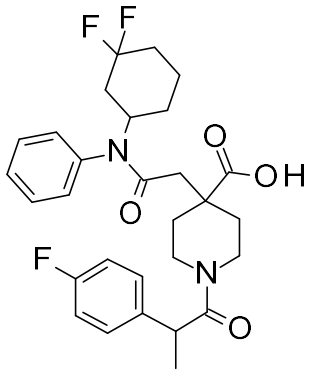
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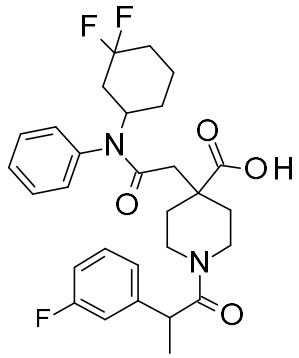
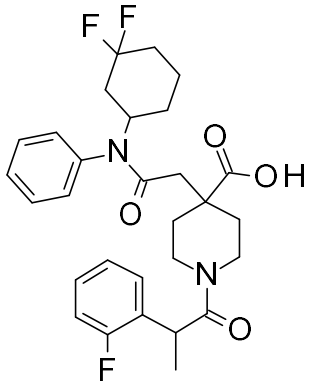
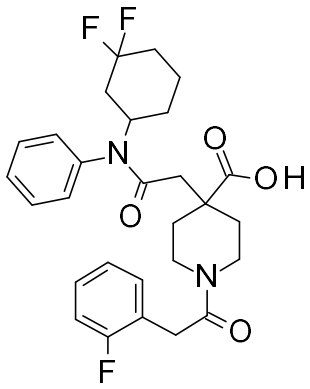
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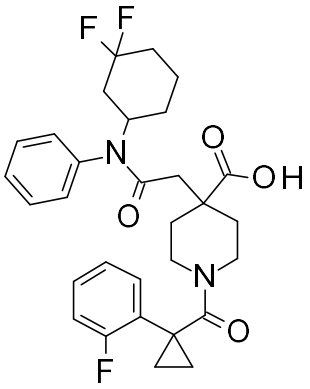
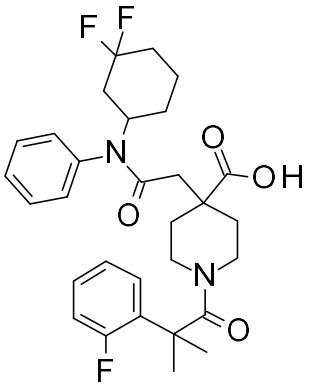
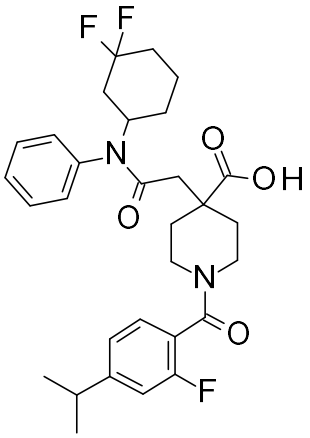
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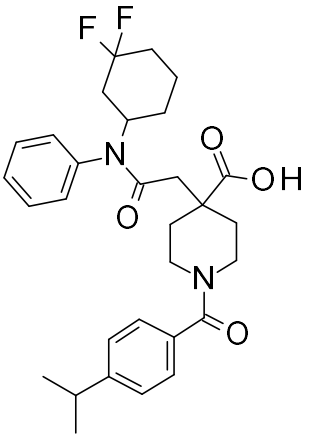
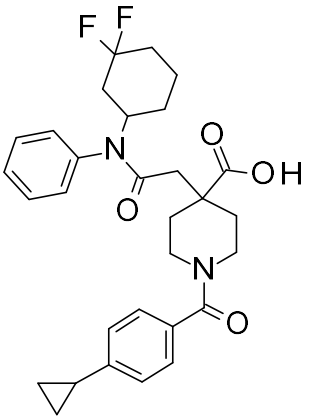
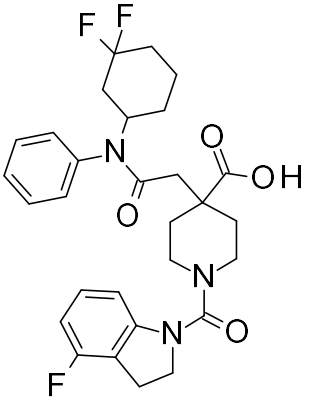
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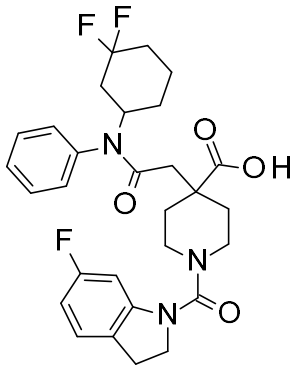
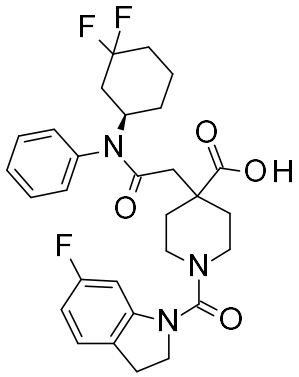
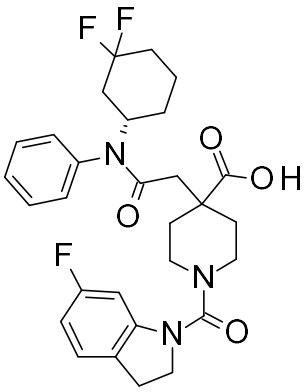
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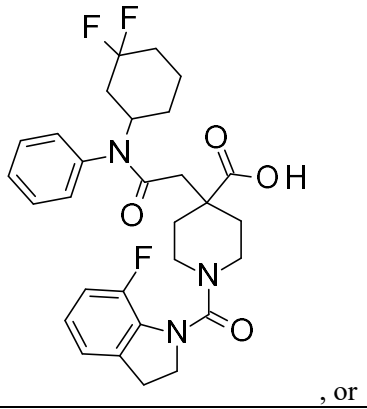
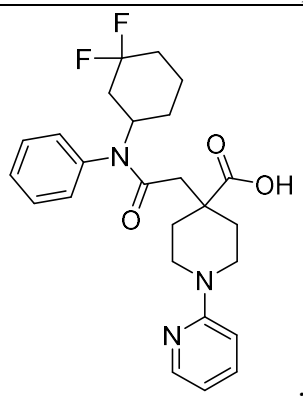
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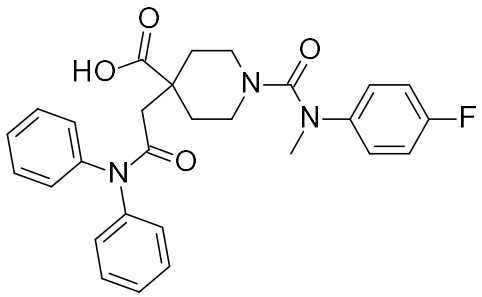
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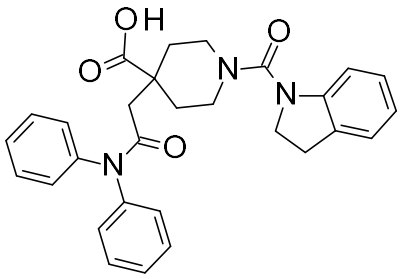
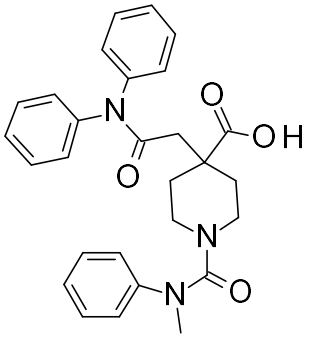
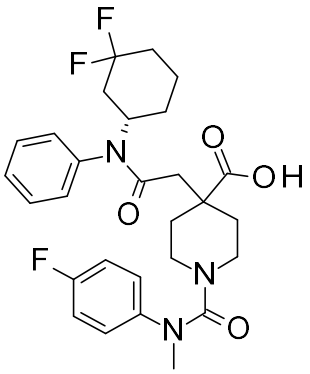
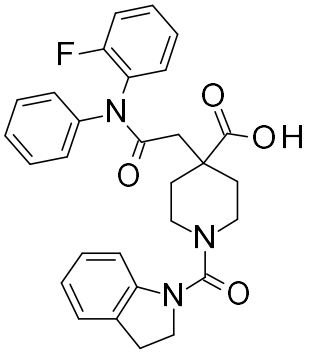
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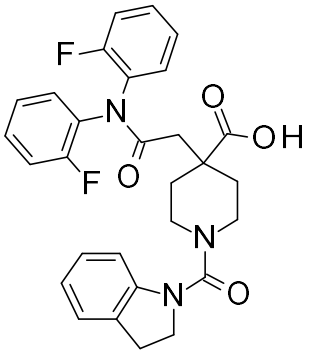
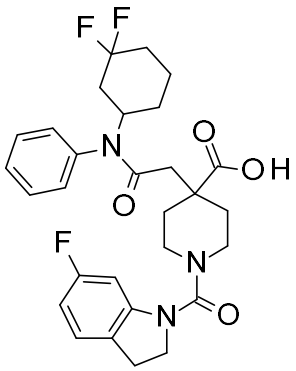
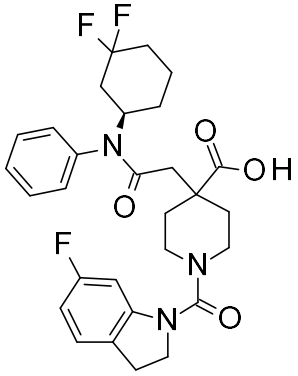
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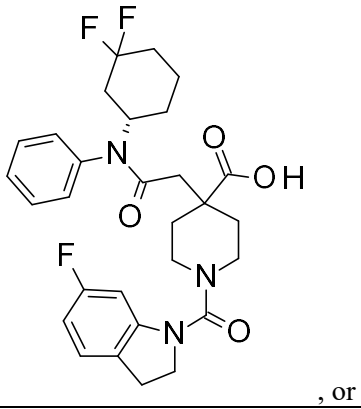
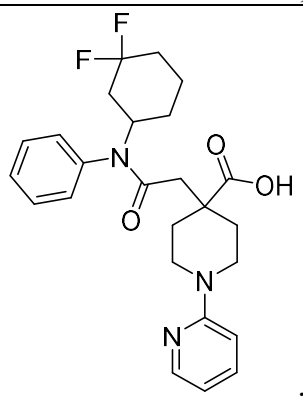
or a pharmaceutically acceptable salt thereof.

24. The compound of claim 1, wherein the compound is

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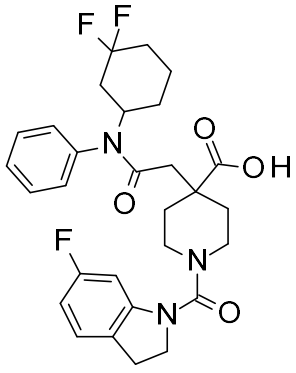
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or a pharmaceutically acceptable salt thereof.

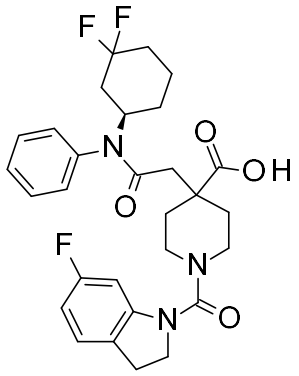
25. The compound of claim 24, wherein the compound is



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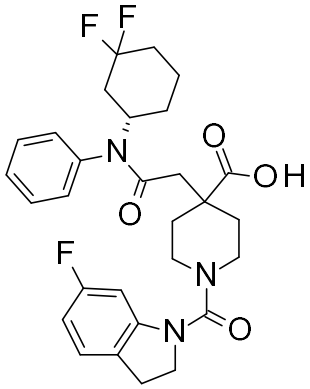
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26. The compound of claim 25, wherein the compound is




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27. The compound of claim 25, wherein the compound is




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28. A pharmaceutical composition comprising a compound of any one of claims 1-27, or a pharmaceutically acceptable salt thereof, and one or more pharmaceutically acceptable carrier, diluent, or excipient.

29. A compound of any one of claims 1-27, or a pharmaceutically acceptable salt thereof, for use in treating pain.

30. The compound for use of claim 29, wherein the pain is neuropathic pain, inflammatory pain, nociceptive pain, mixed nociceptive and neuropathic pain, visceral pain, post-operative pain, post-herpetic pain, traumatic pain, phantom-limb pain, fibromyalgia

syndrome, back pain, cancer pain, chemotherapy induced neuropathic pain (CINP), or osteoarthritic (OA) pain.

31. The compound for use of claim 29, wherein the pain is neuropathic pain.

32. The compound for use of claim 31, wherein the neuropathic pain is diabetic peripheral neuropathic pain.

33. The compound for use of claim 29, wherein the pain is chronic lower back pain.

34. Use of the compound of any one of claims 1-27, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament, for the treatment of pain.

35. The use of claim 34, wherein the pain is neuropathic pain, inflammatory pain, nociceptive pain, mixed nociceptive and neuropathic pain, visceral pain, post-operative pain, post-herpetic pain, traumatic pain, phantom-limb pain, fibromyalgia syndrome, back pain, cancer pain, chemotherapy induced neuropathic pain (CINP), or osteoarthritic (OA) pain.

36. The use of claim 34, wherein the pain is neuropathic pain.

37. The use of claim 36, wherein the neuropathic pain is diabetic peripheral neuropathic pain.

38. The use of claim 34, wherein the pain is chronic lower back pain.

39. A compound of any one of claims 1-27, or a pharmaceutically acceptable salt thereof, for use in therapy.