

Señor Director

DIRECCION DE NUEVAS CREACIONES

Superintendencia de Industria y Comercio

E. S. D.

Referencia: Expediente No. NC2018/0008733

Asunto: Solicitud de patente para: MOLÉCULAS QUE TIENEN
UTILIDAD PLAGUICIDA, E INTERMEDIARIOS, COMPOSICIONES
Y PROCESOS, RELACIONADOS CON ELLAS

Solicitante: DOW AGROSCIENCES LLC

Fecha de solicitud: 21 de agosto de 2018

RESPUESTA A EXAMEN PRELIMINAR

ANDRES RINCON USCATEGUI, identificado como aparece al pie de mi firma, en mi condición de apoderado de la sociedad solicitante de la patente de la referencia, doy respuesta al Oficio 10829 notificado por fijación en lista el 11 de septiembre de 2018.

I. MODIFICACIONES AL CAPÍTULO REIVINDICATORIO

Con el ánimo de clarificar aún más la materia reclamada en la presente solicitud, se adjunta un Capítulo Reivindicatorio Modificado que reemplaza en su totalidad al radicado originalmente el día 21 de agosto de 2018, conformado por 10 reivindicaciones en las que se han incluido las siguientes modificaciones:

- Se eliminan las Reivindicaciones 11-13
- En la Reivindicación 3, se introduce la Tabla 2. Esta modificación tiene sustento en las páginas 306-349 del Capítulo Reivindicatorio.
- En la Reivindicación 4, se introduce la Tabla 1. Esta modificación tiene sustento en las páginas 152-172 del Capítulo Reivindicatorio.

En relación con las modificaciones anteriormente expuestas me permito resaltar que estas se ajustan completamente a lo estipulado por el Artículo 34 de la Decisión 486 de 2000, ya que no constituyen de ninguna manera una ampliación de la protección que correspondería a la divulgación contenida en la solicitud inicial.

INNOVACIÓN PARA LOS NEGOCIOS

A pesar de modificar materia del pliego reivindicatorio originalmente presentado, mi representada no renuncia a la protección que pueda obtener sobre dicha materia y se reserva el derecho de presentar una solicitud divisional que la contenga durante el trámite de la presente solicitud.

II. EN CUANTO AL PAGO DE TASA ADICIONAL POR EL NÚMERO DE REIVINDICACIONES

Debido a que el Capítulo Reivindicatorio Modificado solo cuenta con 10 Reivindicaciones, no se hace el pago de tasas adicionales para el estudio de la presente solicitud.

III. PETICIÓN

Teniendo en cuenta que la presente solicitud cumple con los requisitos de los artículos 26 y 27 de la Decisión 486 de 2000 y considerando que se ha dado respuesta a cada una de las observaciones de la Dirección de Nuevas Creaciones con respecto a otros aspectos que tienen que ver con la patentabilidad de la invención, solicito a su Despacho continuar con el trámite administrativo correspondiente.

IV. ANEXOS

1. Nuevo pliego reivindicatorio conformado por 10 reivindicaciones.

Señor Director,

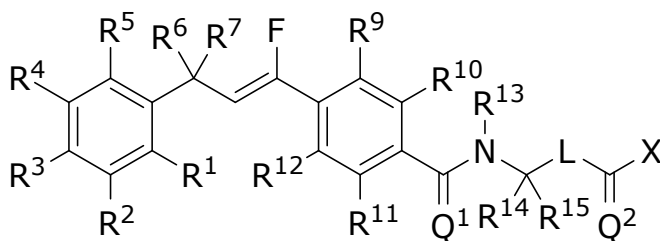
ANDRÉS RINCÓN USCÁTEGUI

C.C. 79.780.910 de Bogotá

T.P. 114.908

CAPÍTULO REIVINDICATORIO

1. Una molécula que tiene la siguiente fórmula



Fórmula Uno

en donde:

- (A) R¹, R⁵, R⁶, R¹¹, y R¹² se seleccionan cada uno independientemente de H, F, Cl, Br, I, CN, (C₁-C₆)alquilo, (C₁-C₆)haloalquilo, (C₁-C₆)alcoxi, y (C₁-C₄)haloalcoxi;
- (B) R², R³, y R⁴ se seleccionan cada uno independientemente de H, F, Cl, Br, I, CN, (C₁-C₆)alquilo, (C₂-C₆)alquenilo, (C₂-C₆)alquinilo, (C₁-C₆)haloalquilo, (C₁-C₆)alcoxi, y (C₁-C₆)haloalcoxi;
- (C) R⁷ es (C₁-C₆)haloalquilo;
- (D) R⁹ se selecciona de (F), H, F, Cl, Br, I, CN, (C₁-C₄)alquilo, (C₁-C₄)haloalquilo, (C₁-C₄)alcoxi, y (C₁-C₄)haloalcoxi;
- (E) R¹⁰ se selecciona from (F), F, Cl, Br, I, CN, (C₁-C₆)alquilo, (C₂-C₆)alquenilo, (C₂-C₆)alquinilo, (C₁-C₆)haloalquilo, (C₁-C₆)alcoxi, y (C₁-C₆)haloalcoxi;
- (F) R⁹ y R¹⁰ pueden, opcionalmente, formar juntos un enlace hidrocarbilo de 3 a 5 miembros saturados o no saturados,
- en donde dicho enlace hidrocarbilo puede sustituirse opcionalmente con uno o más sustituyentes seleccionados independientemente de F, Cl, Br, I, CN, OH, y oxo;
- (G) Q¹ y Q² son cada uno independientemente O o S;
- (H) R¹³ se selecciona de H, (C₁-C₆)alquilo, (C₂-C₆)alquenilo, (C₁-C₆)haloalquilo, (C₁-C₆)alcoxi, y (C₁-C₆)haloalcoxi;
- (I) R¹⁴ se selecciona de (K), (O), H, (C₁-C₄)alquilo, (C₂-C₆)alquenilo, (C₁-C₆)haloalquilo, (C₁-C₆)alcoxi, y (C₁-C₆)haloalcoxi;
- (J) R¹⁵ se selecciona de (K), H, (C₁-C₆)alquilo, (C₂-C₆)alquenilo, (C₁-C₆)haloalquilo, (C₁-C₆)alcoxi, y (C₁-C₆)haloalcoxi;
- (K) R¹⁴ y R¹⁵ juntos pueden formar opcionalmente un enlace hidrocarbilo saturado de 2 a 5 miembros,

en donde dicho enlace hidrocarbilo puede sustituirse opcionalmente con uno o más sustituyentes seleccionados independientemente de F, Cl, Br, I y CN;

(L) L se selecciona de

1. un enlace, y
2. a (C₁-C₆)alquilo en donde dicho alquilo se sustituye opcionalmente con uno o más sustituyentes seleccionados independientemente de F, Cl, CN, OH, y oxo;

(M) X se selecciona de

1. R¹⁷, y
2. a NR¹⁶R¹⁷,
3. OR¹⁷, y
4. SR¹⁷;

(N) R¹⁶ se selecciona de **(O)**, **(Q)**, H, (C₁-C₆)alquilo, (C₂-C₆)alquenilo, (C₁-C₆)haloalquilo, (C₁-C₆)alcoxi, (C₂-C₆)alquenilo, (C₁-C₆)haloalcoxi, amino, y NHC(O)O(C₁-C₆)alquilo;

(O) R¹⁴ y R¹⁶ juntos pueden formar opcionalmente un enlace saturado de 2 a 4 miembros que es, ya sea, (1) un enlace hidrocarbilo o (2) un enlace heterohidrocarbilo que contiene uno o más heteroátomos seleccionados de nitrógeno, azufre, y oxígeno, en donde dicho enlace puede sustituirse opcionalmente con uno o más sustituyentes seleccionados independientemente de F, Cl, Br, I, CN, OH, y oxo;

(P) R¹⁷ se selecciona de **(Q)**, H, (C₁-C₆)alquilo, (C₂-C₆)alquenilo, (C₂-C₆)alquino, (C₁-C₆)haloalquilo, (C₂-C₆)haloalquenilo, (C₃-C₆)halocicloalquilo, (C₁-C₆)alcoxi, (C₃-C₆)cicloalquilo, (C₂-C₆)alquenilo, (C₁-C₆)haloalcoxi, y (C₁-C₆)alquil(C₃-C₆)cicloalquilo;

(Q) R¹⁶ y R¹⁷ juntos pueden formar opcionalmente un enlace saturado de 2 a 6 miembros que es, ya sea, (1) un enlace hidrocarbilo o (2) un enlace heterohidrocarbilo que contiene uno o más heteroátomos seleccionado de nitrógeno, azufre, y oxígeno, en donde dicho enlace puede sustituirse opcionalmente con uno o más sustituyentes seleccionados independientemente de F, Cl, Br, I, CN, OH, y oxo; y

sales de adición de ácido aceptables en la agricultura, derivados de sales, solvatos, derivados de ésteres, polimorfos cristalinos, isótopos, estereoisómeros resueltos y tautómeros, de las moléculas de la Fórmula Uno.

2. Una molécula de acuerdo con la Reivindicación 1 en donde:

(A) R¹, R⁵, R⁶, R¹¹, y R¹² son H;

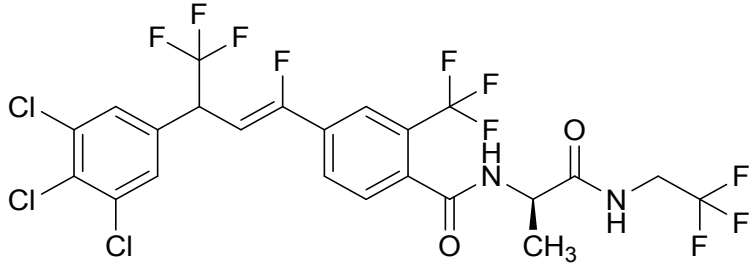
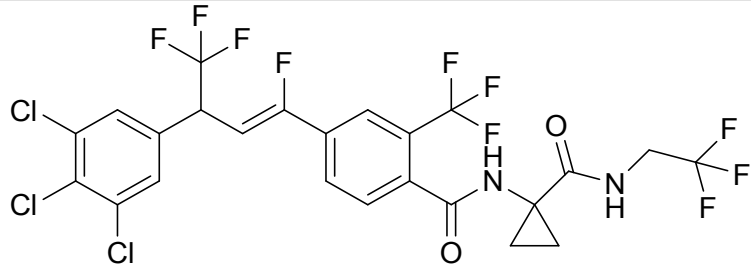
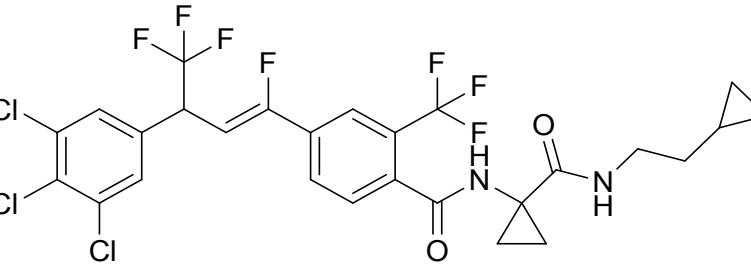
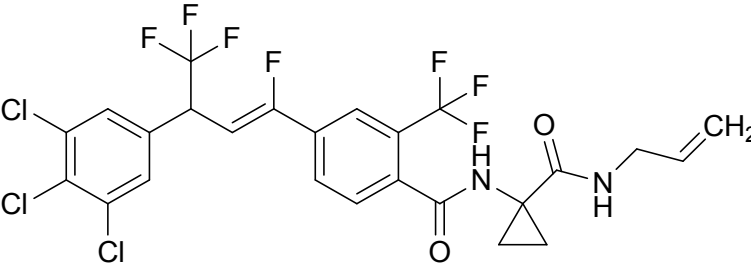
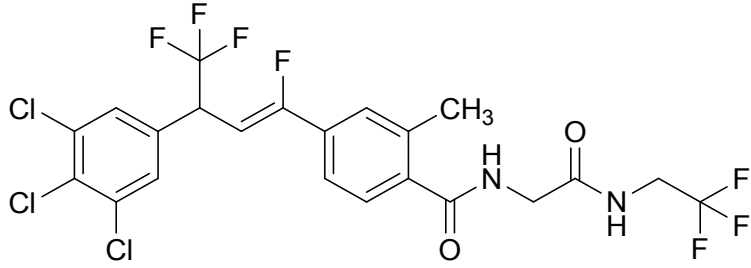
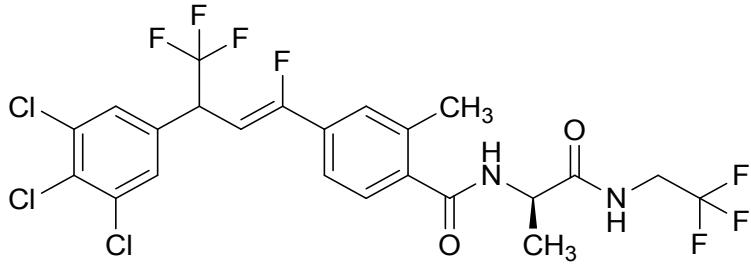
(B) R², R³, y R⁴ se seleccionan cada uno independientemente de H, F, Cl, Br, (C₁-C₆)alquilo, y (C₂-C₆)alquenilo;

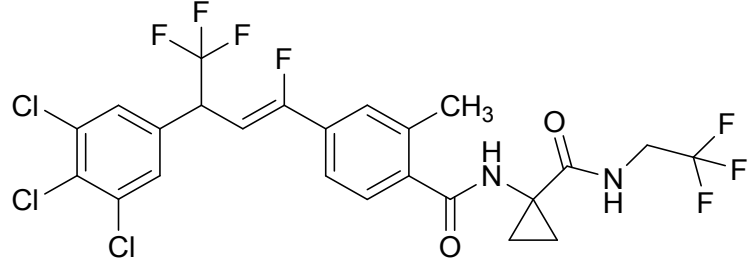
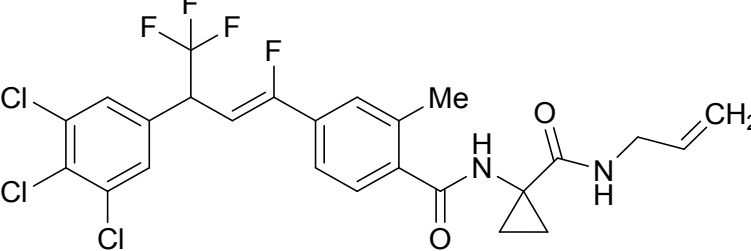
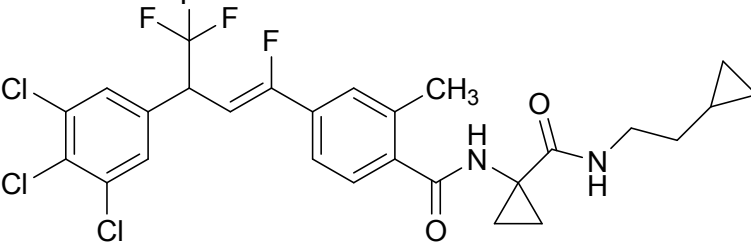
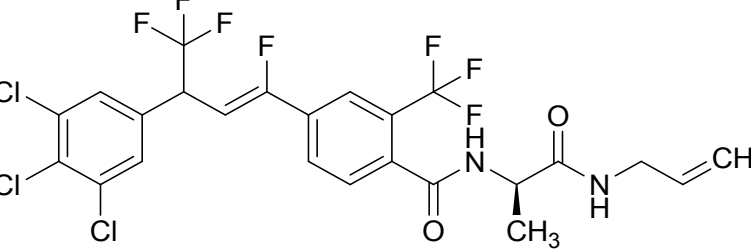
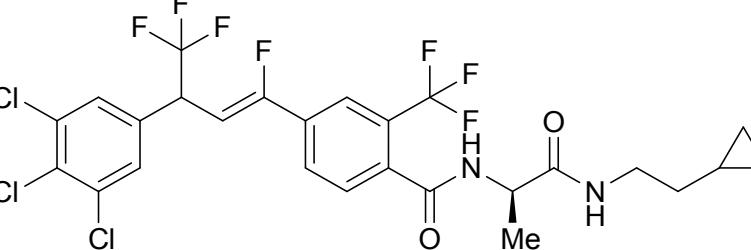
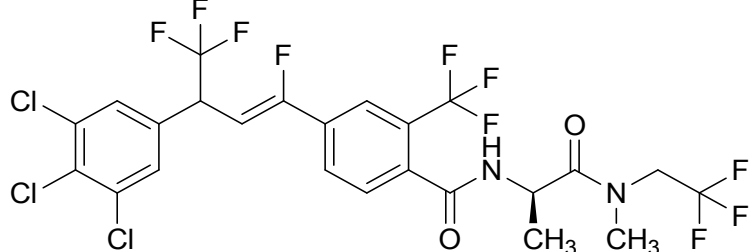
- (C) R^7 es (C₁-C₆)haloalquilo;
- (D) R^9 es H;
- (E) R^{10} se selecciona de Cl, Br, I, (C₁-C₆)alquilo, y (C₁-C₆)haloalquilo;
- (F) Q^1 y Q^2 son O;
- (G) R^{13} se selecciona de H y (C₁-C₆)alquilo;
- (H) R^{14} se selecciona de (K), (O), H, y (C₁-C₄)alquilo;
- (I) R^{15} se selecciona de (K), H, y (C₁-C₆)alquilo;
- (J) R^{14} y R^{15} juntos pueden formar opcionalmente un enlace hidrocarbilo saturado de 2 a 5 miembros;
- (K) L es un enlace;
- (L) X se selecciona de
 1. R^{17} , y
 2. a $NR^{16}R^{17}$;
- (M) R^{16} se selecciona de (N), H, (C₁-C₆)alquilo, (C₁-C₆)alcoxi, (C₂-C₆)alquenilo, amino, y NHC(O)O(C₁-C₆)alquilo;
- (N) R^{14} y R^{16} juntos pueden formar opcionalmente un enlace saturado de 2 a 4 miembros que es, ya sea, (1) un enlace hidrocarbilo o (2) un enlace heterohidrocarbilo que contiene uno o más átomos de oxígeno;
- (O) R^{17} se selecciona de H, (C₁-C₆)alquilo, (C₂-C₆)alquenilo, (C₂-C₆)alquinilo, (C₁-C₆)haloalquilo, (C₂-C₆)haloalquenilo, (C₃-C₆)halocicloalquilo, y (C₁-C₆)alquil(C₃-C₆)cicloalquilo.

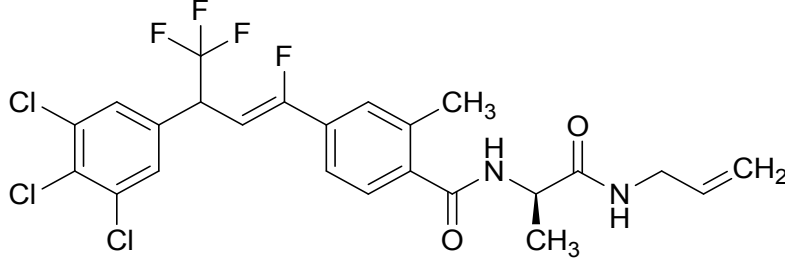
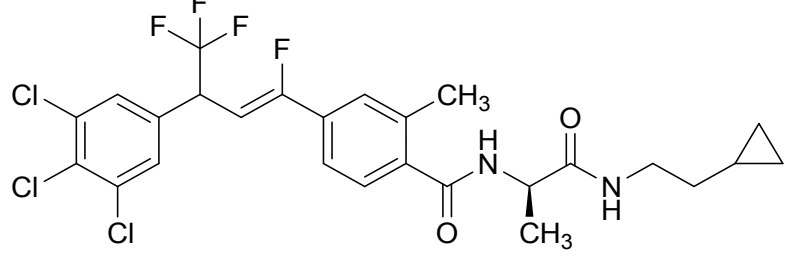
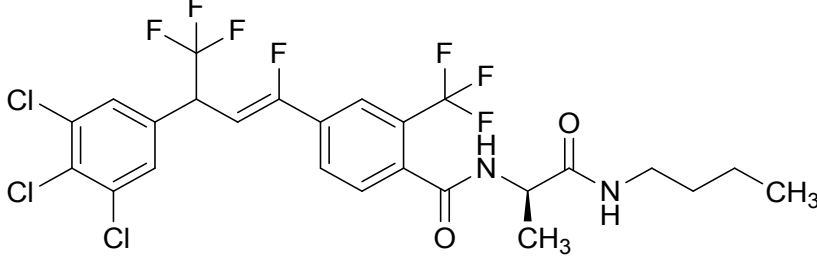
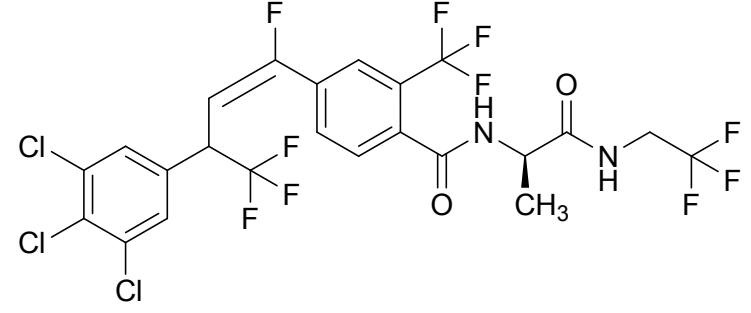
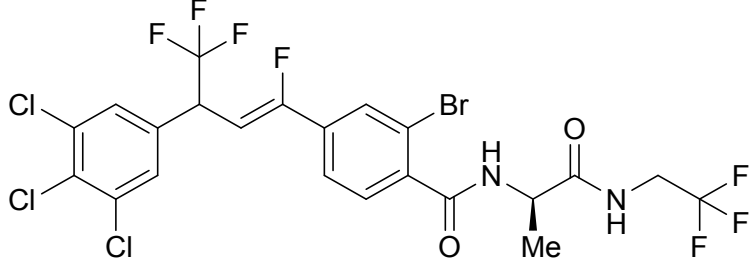
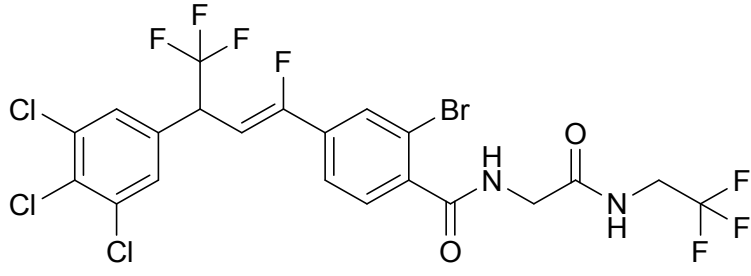
3. Una molécula de acuerdo con la Reivindicación 1 en donde dicha molécula se selecciona de una de las moléculas de la Tabla 2.

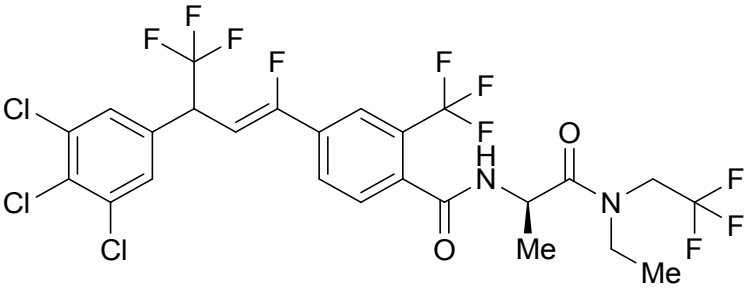
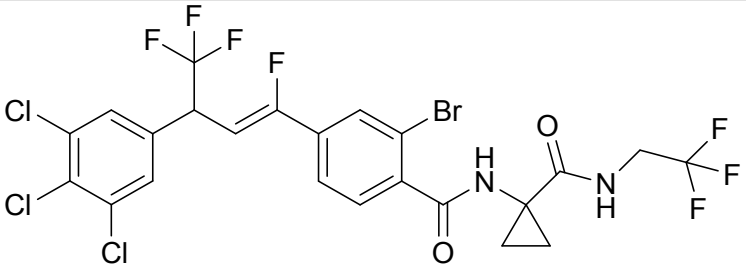
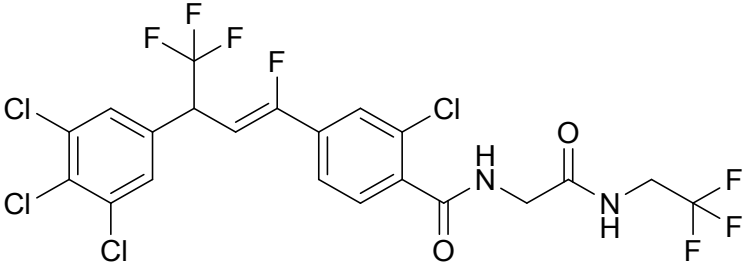
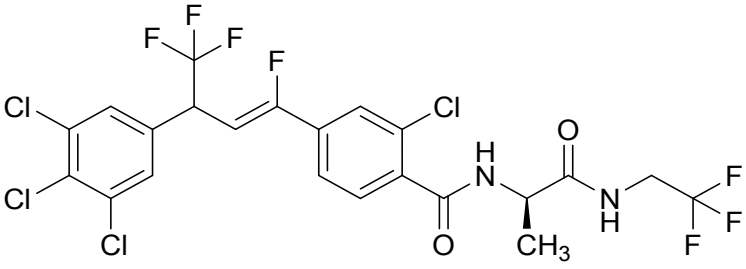
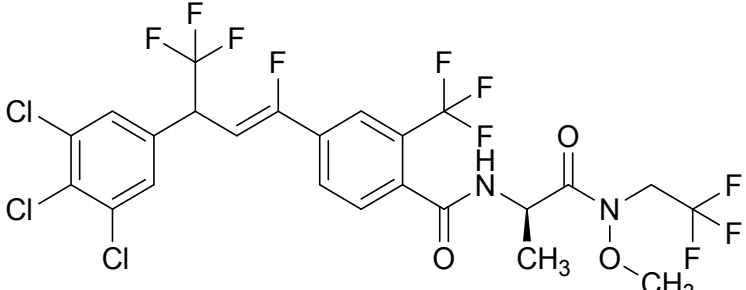
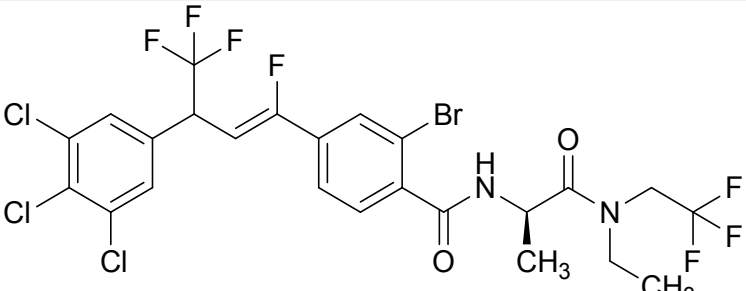
Tabla 2: Estructura y método de preparación para moléculas Serie F

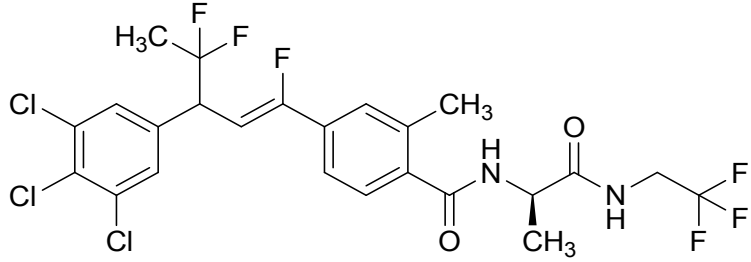
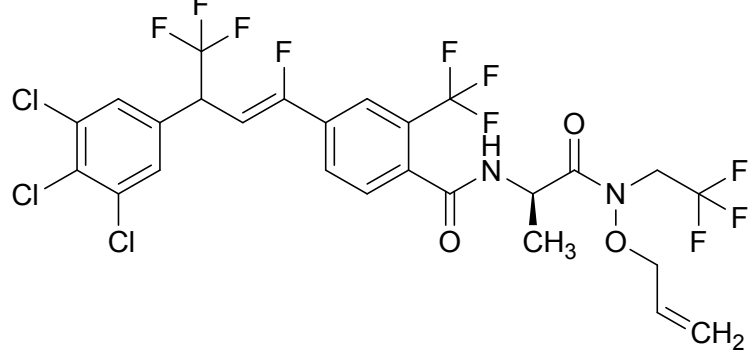
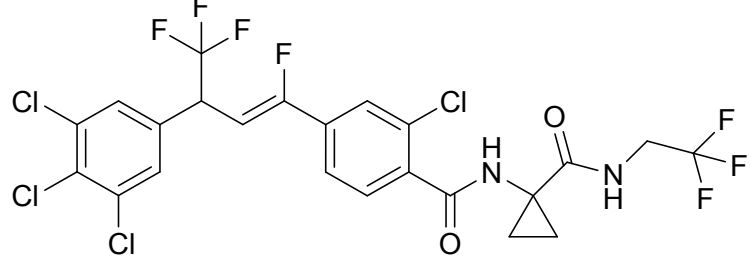
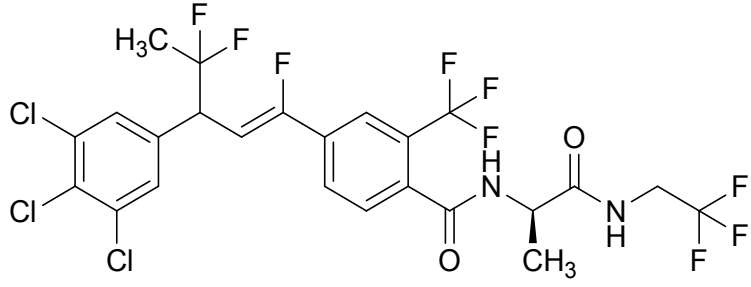
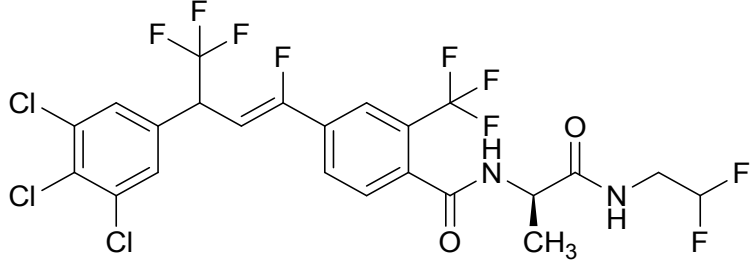
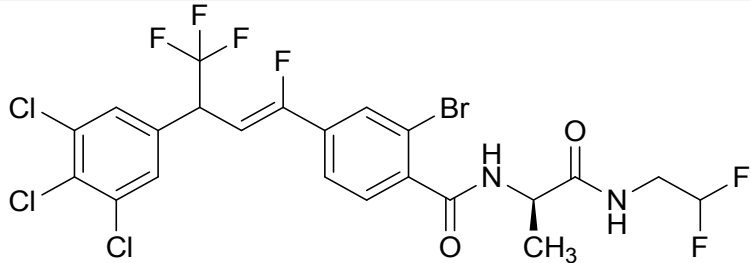
No.	Estructura
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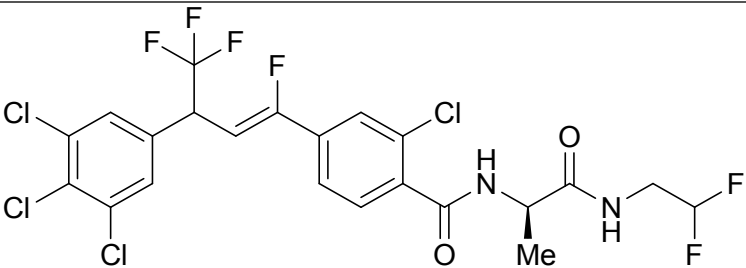
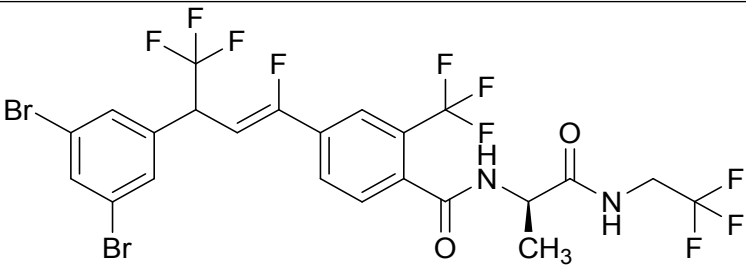
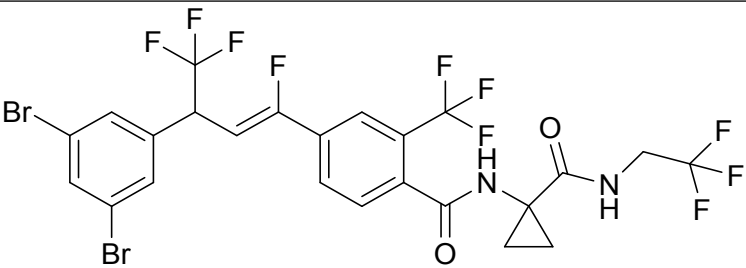
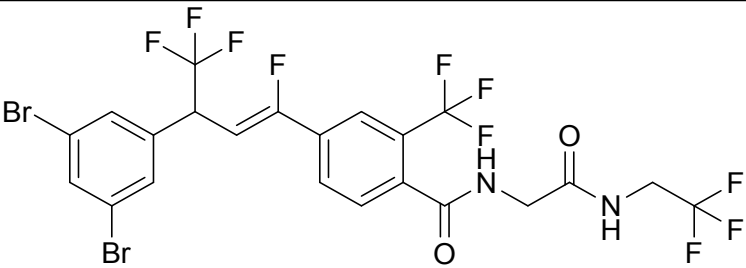
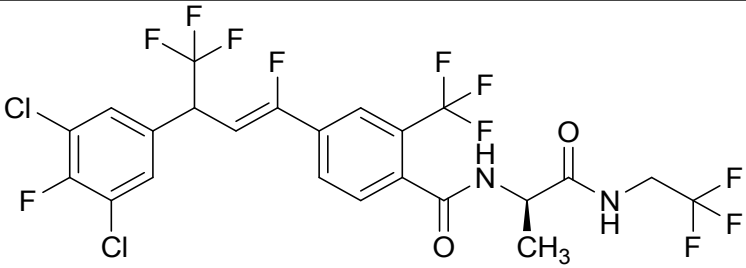
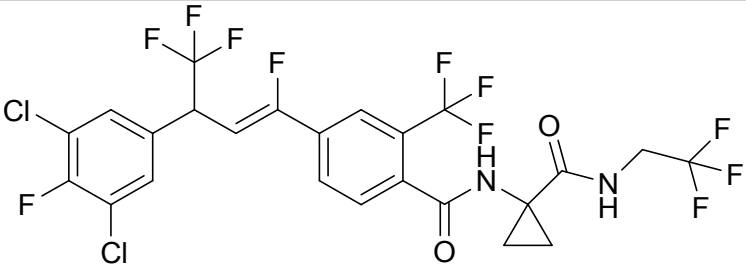
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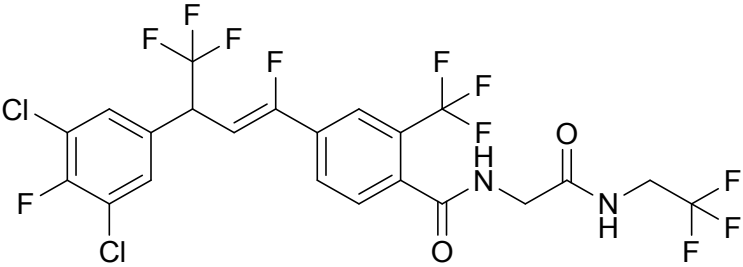
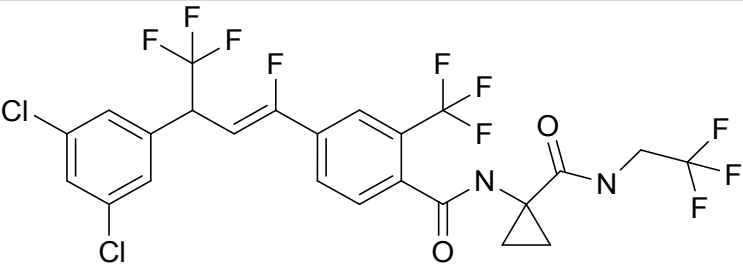
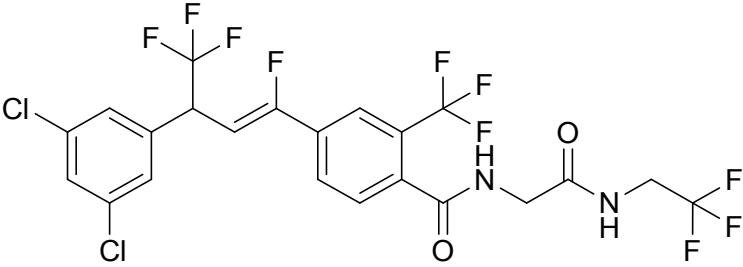
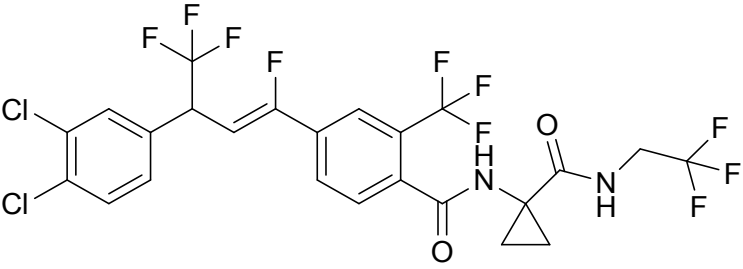
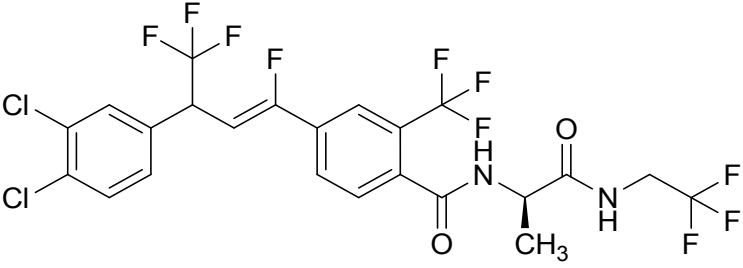
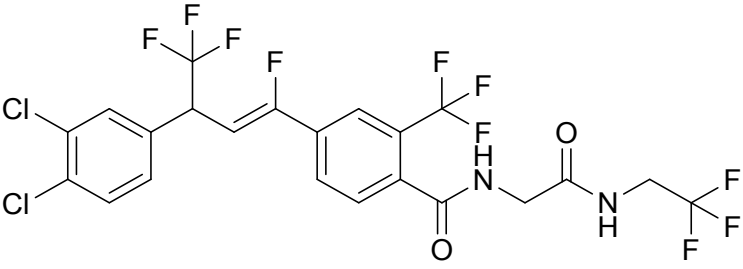
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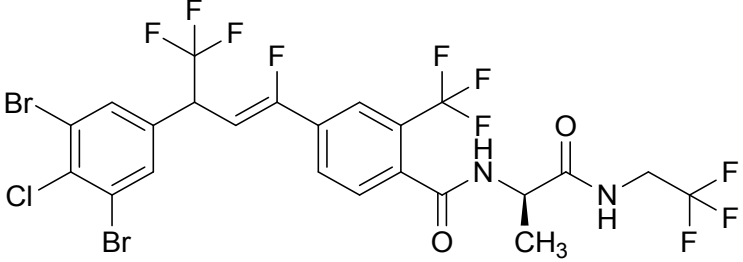
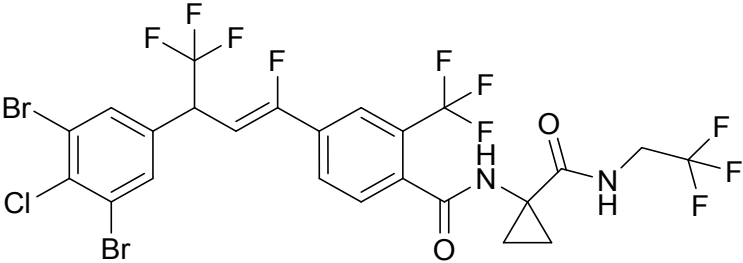
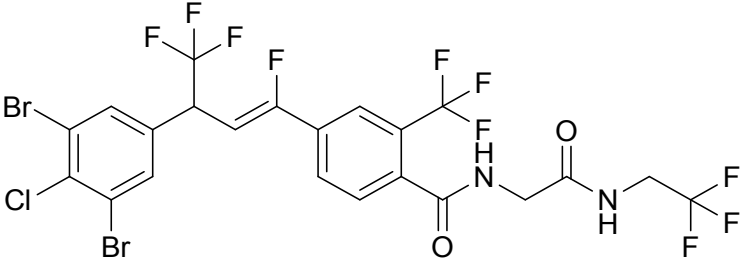
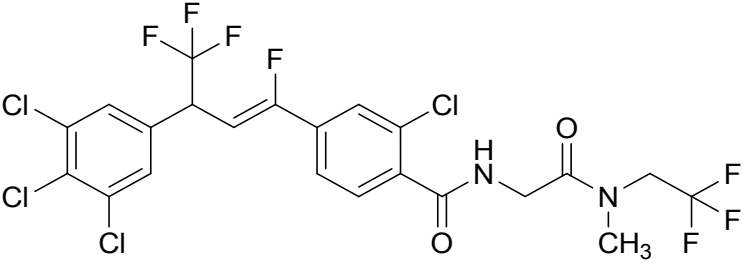
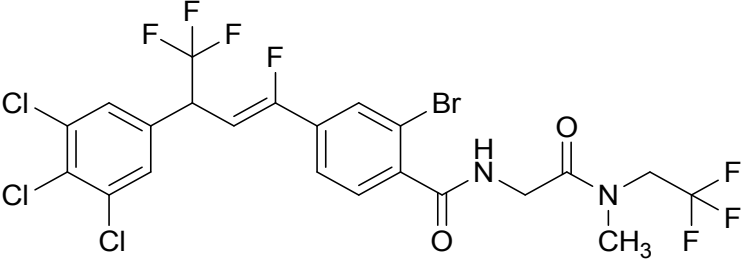
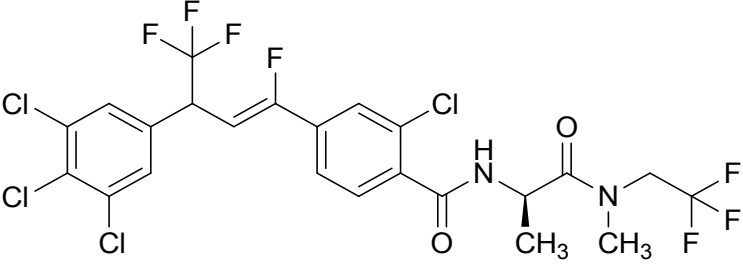
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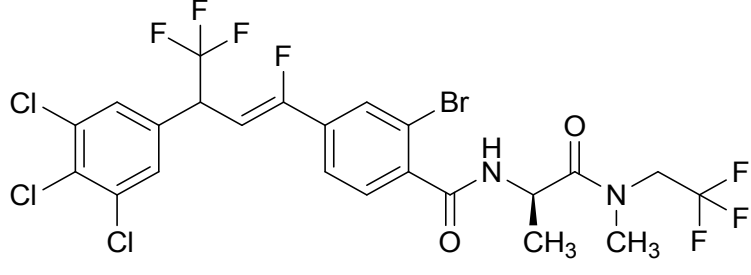
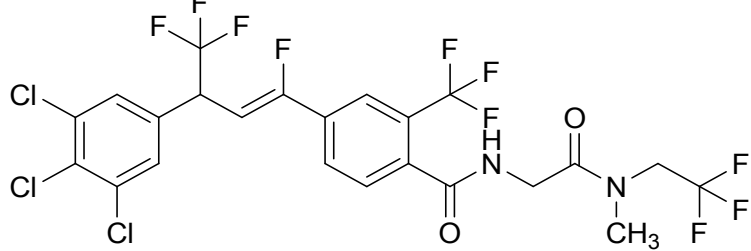
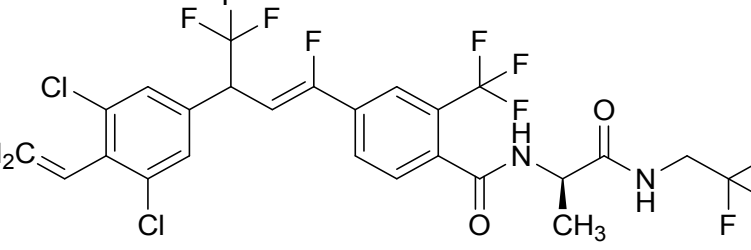
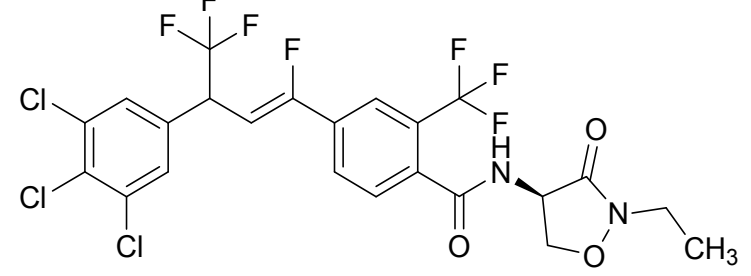
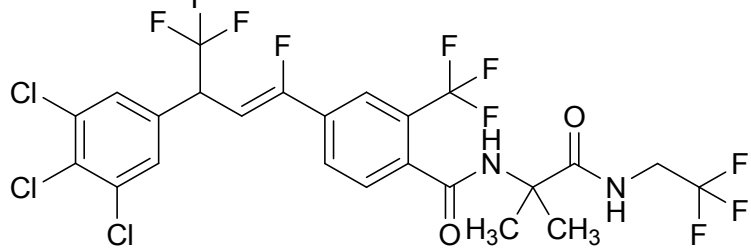
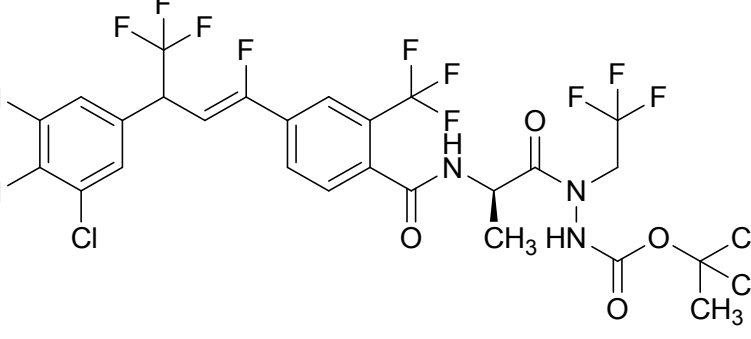
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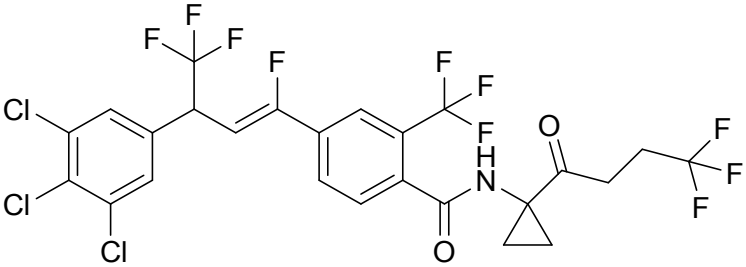
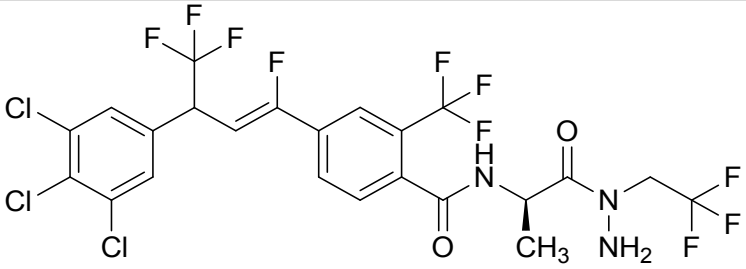
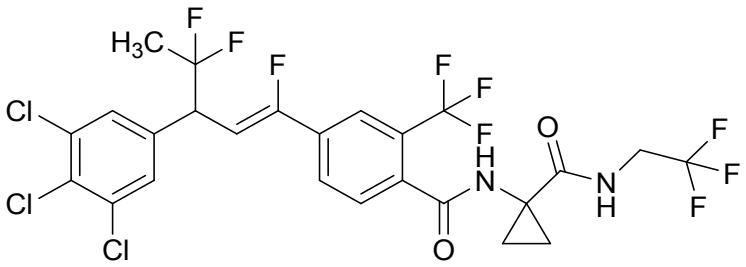
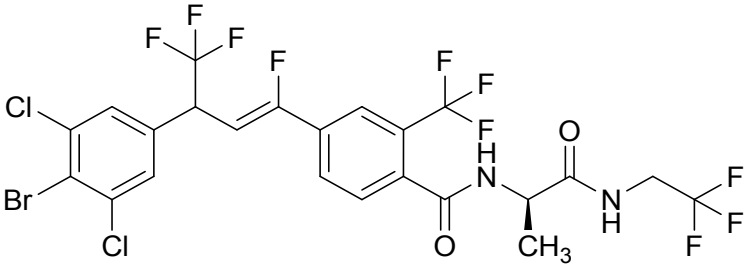
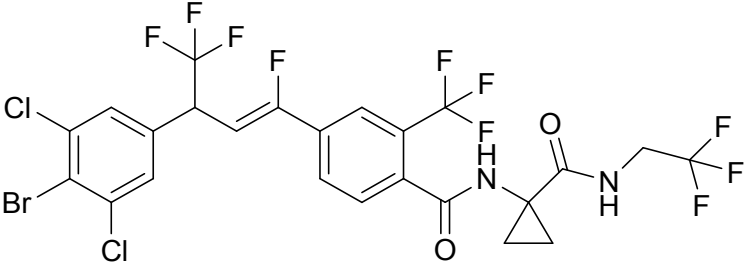
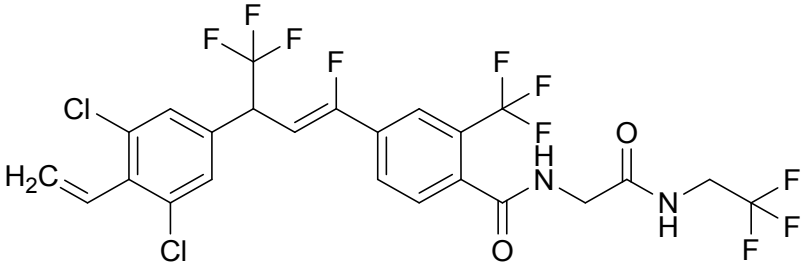
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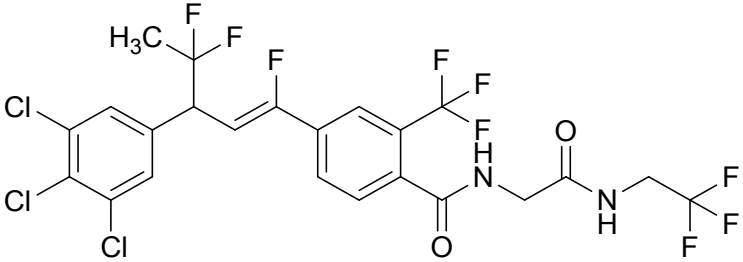
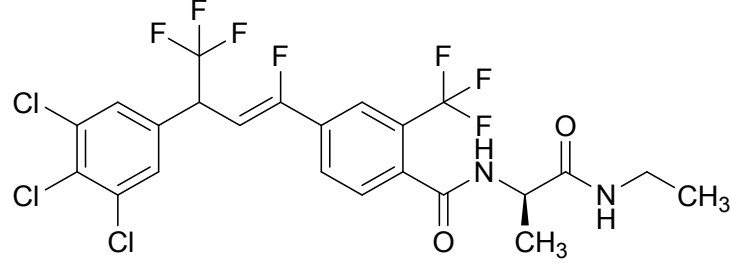
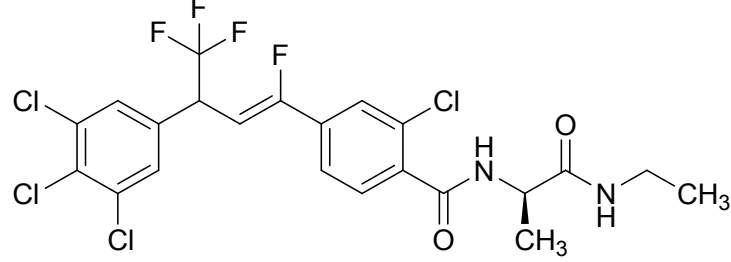
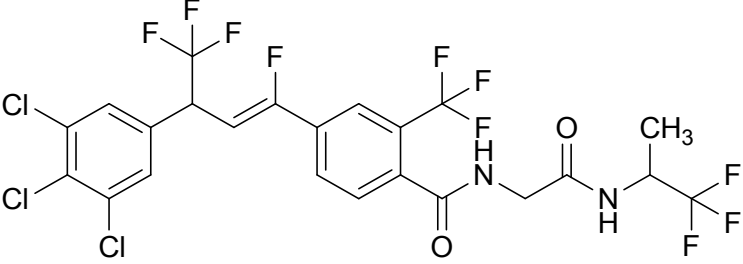
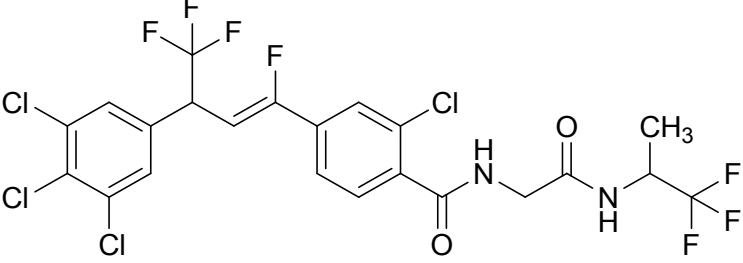
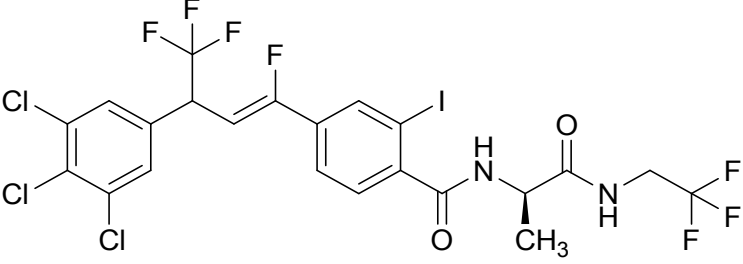
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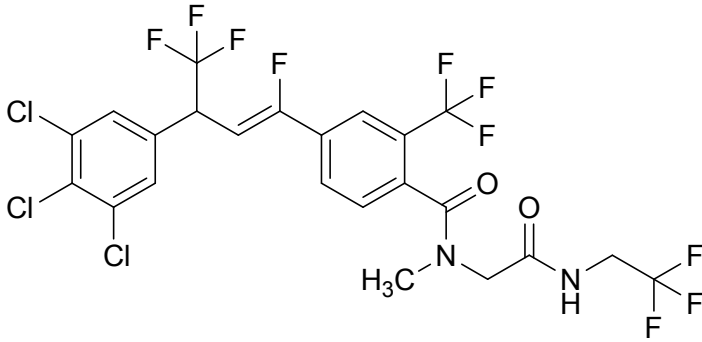
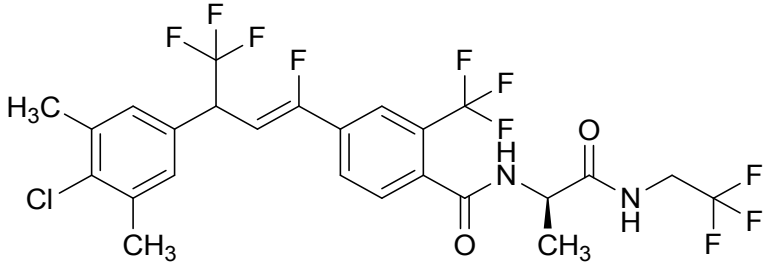
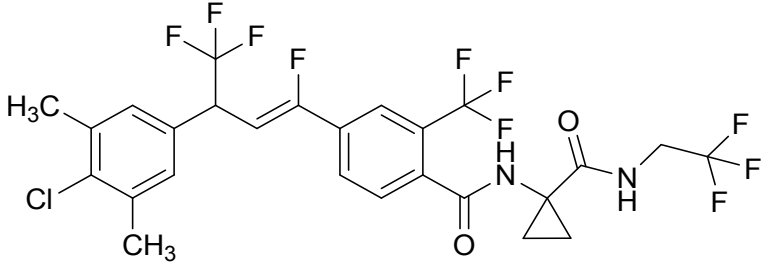
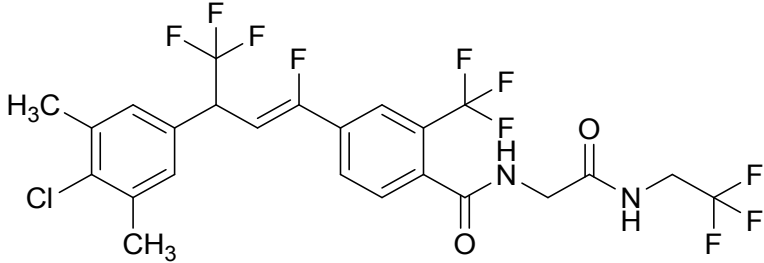
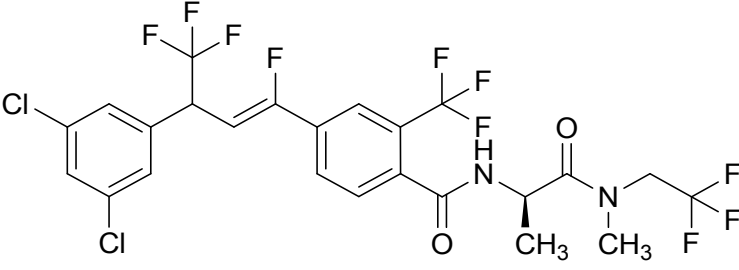
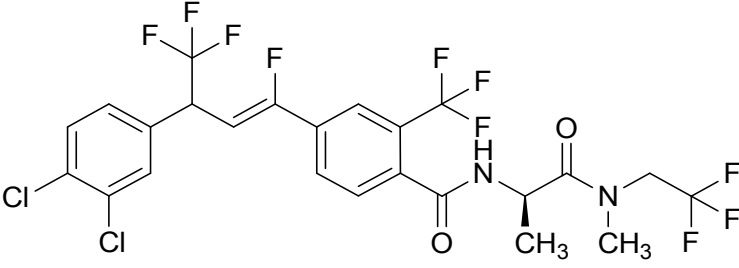
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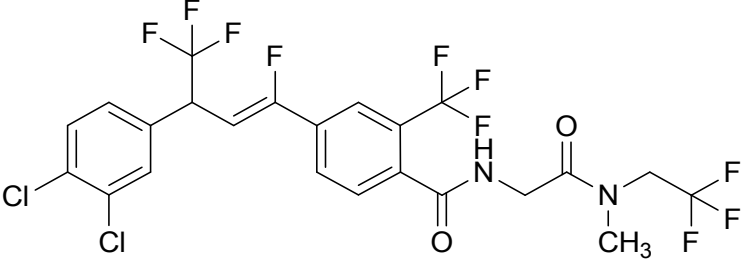
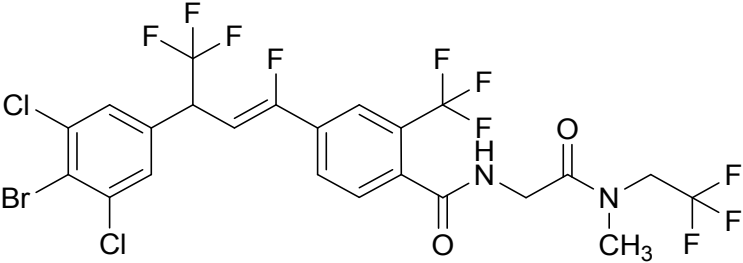
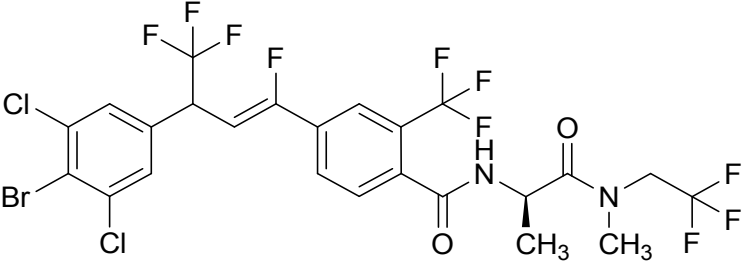
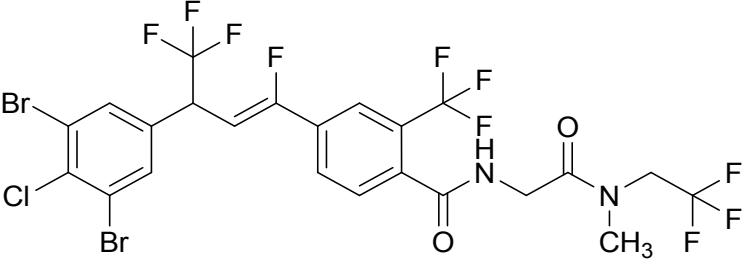
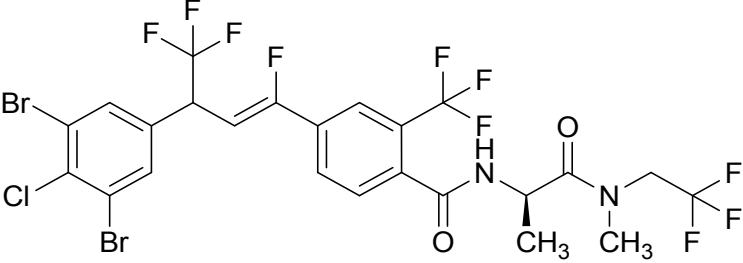
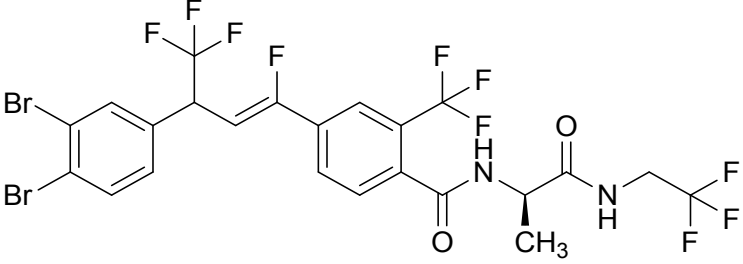
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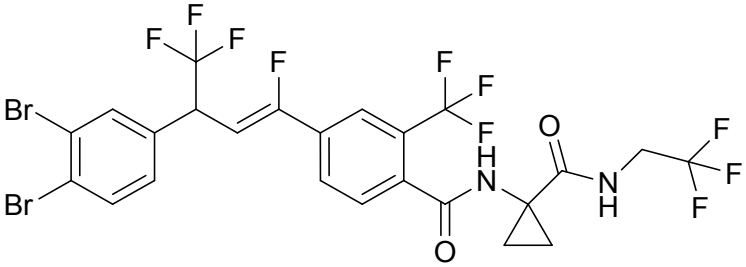
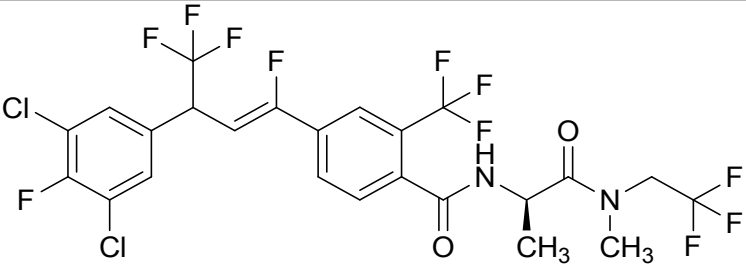
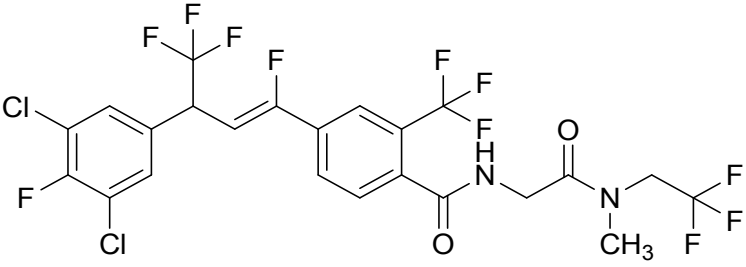
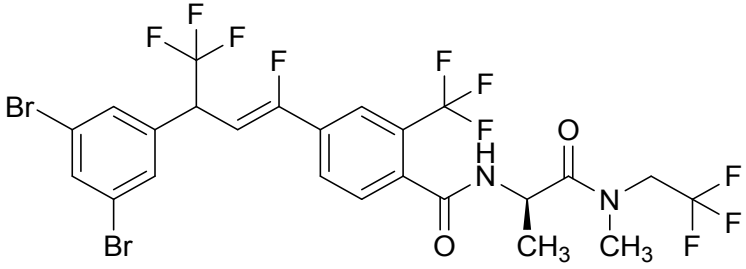
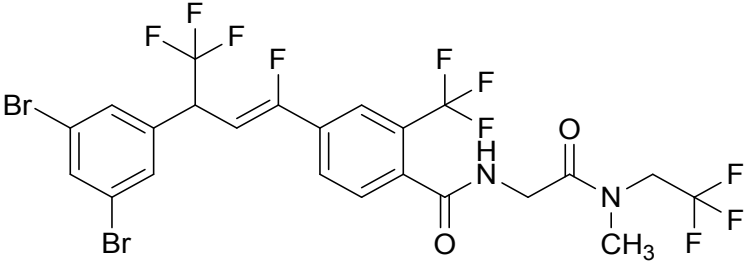
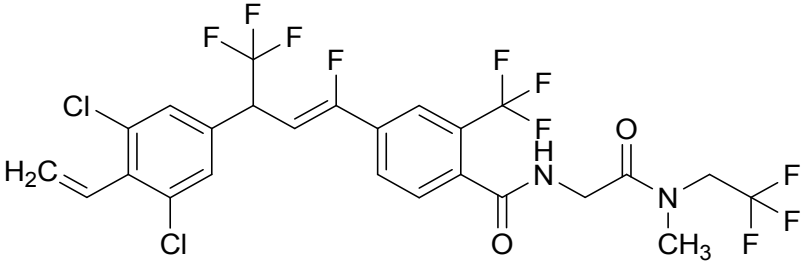
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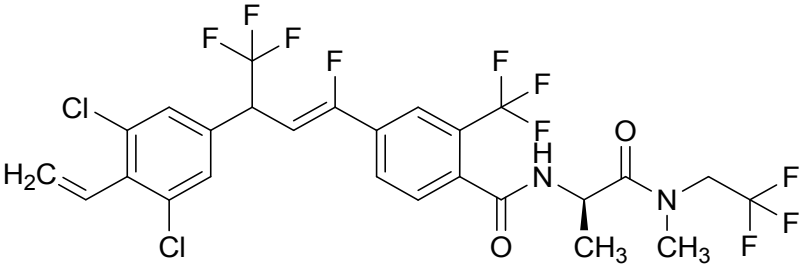
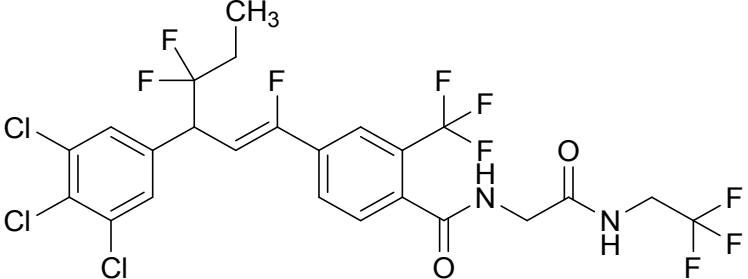
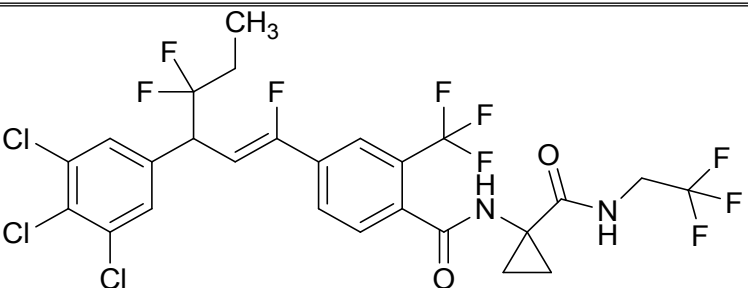
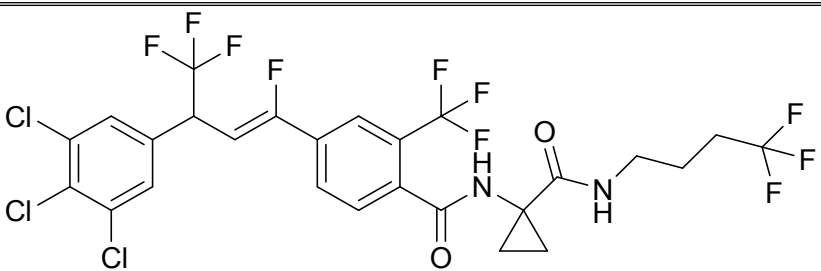
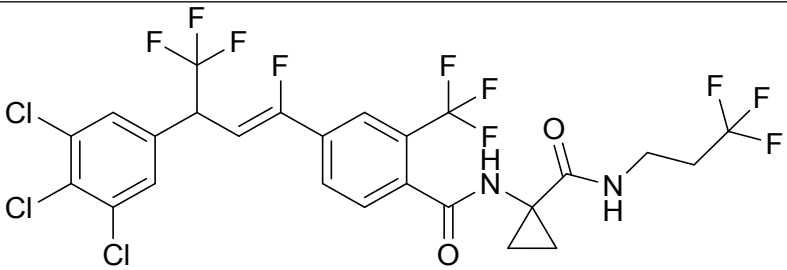
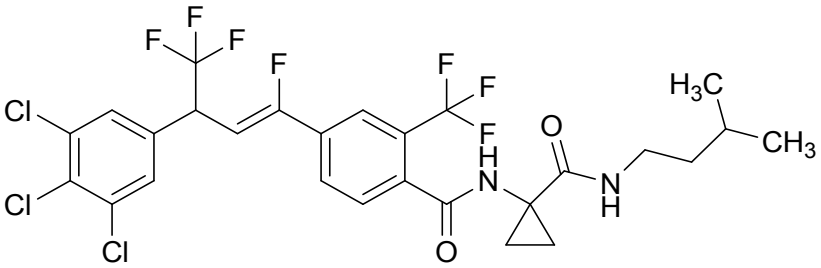
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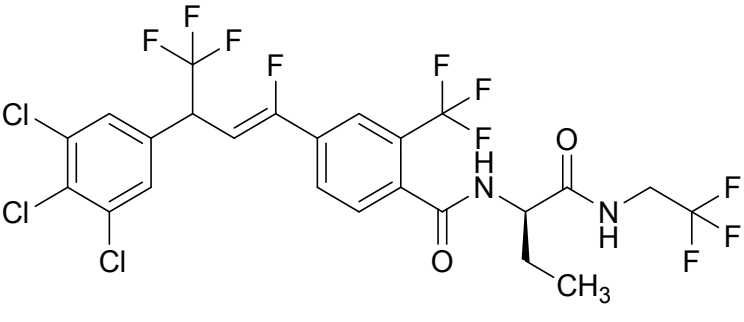
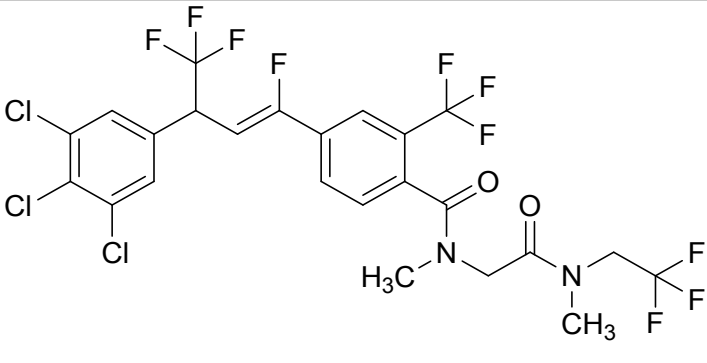
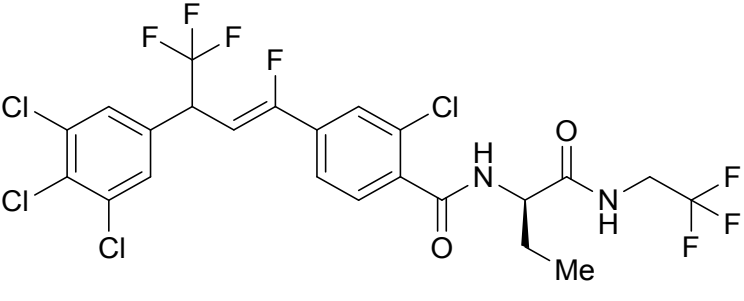
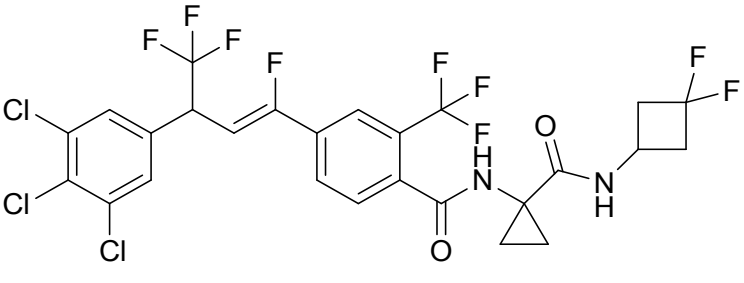
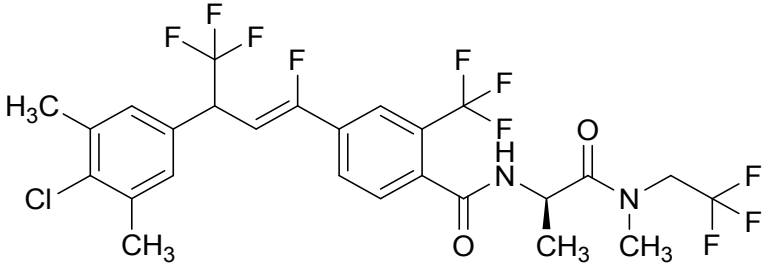
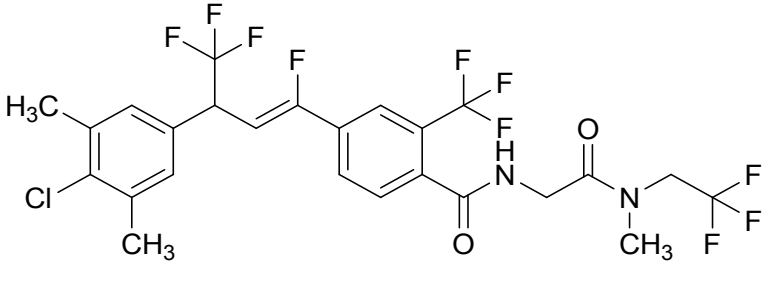
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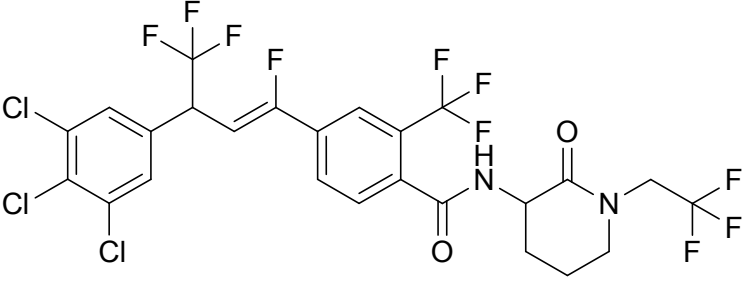
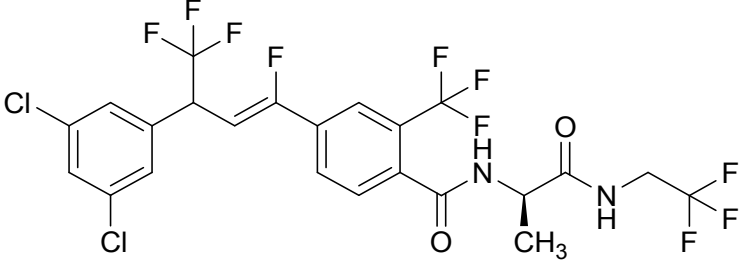
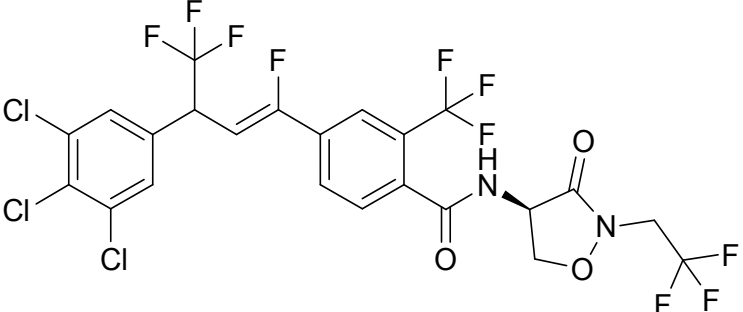
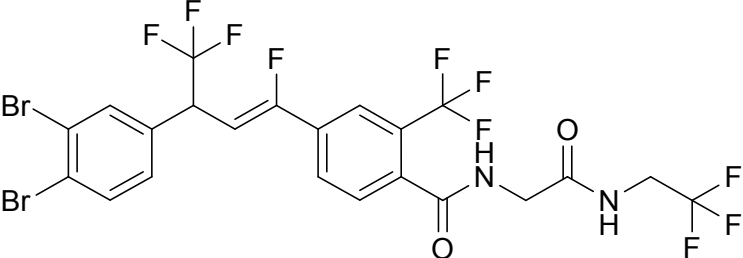
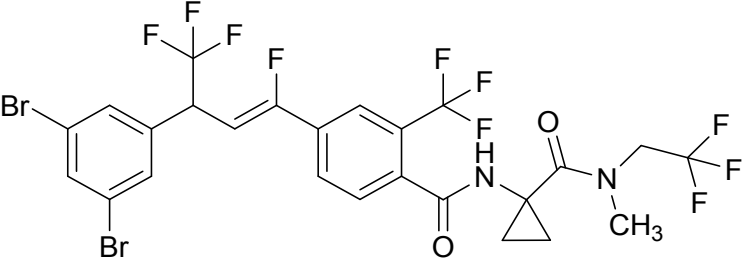
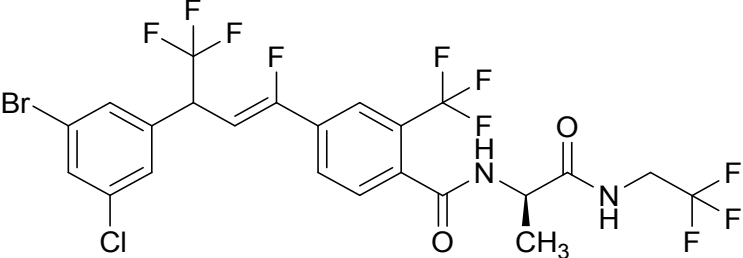
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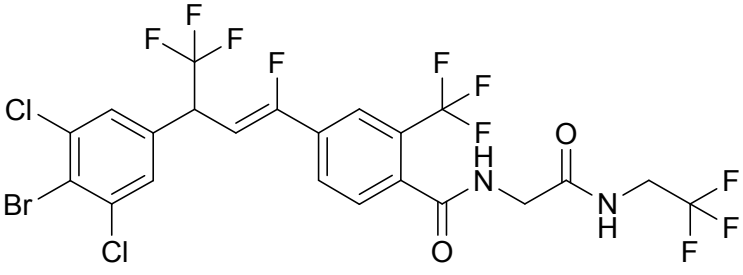
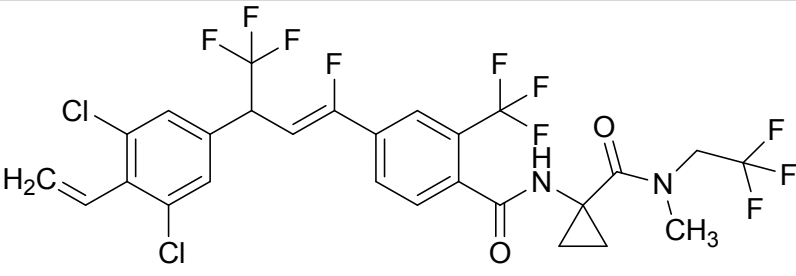
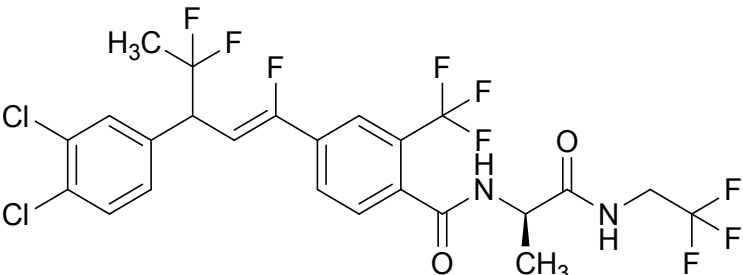
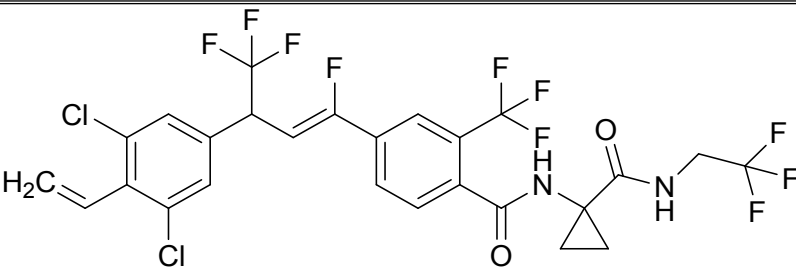
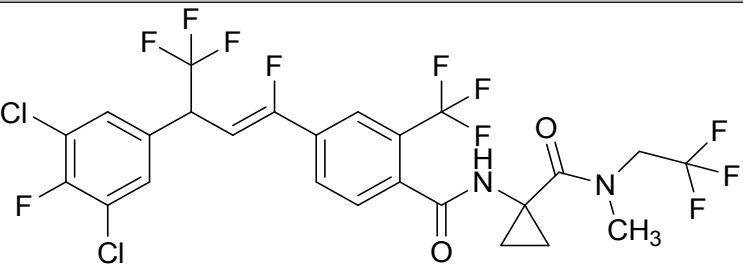
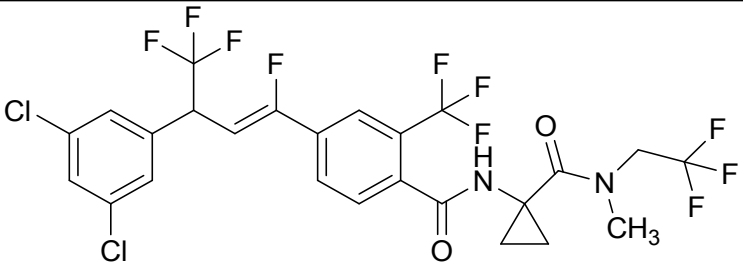
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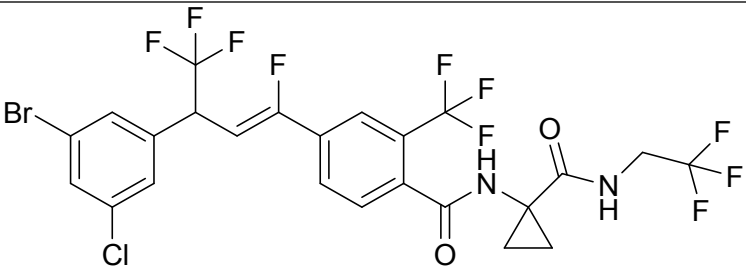
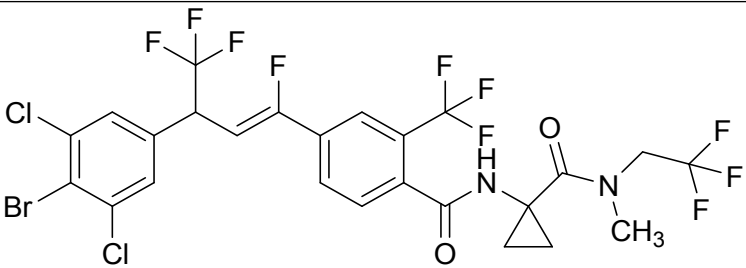
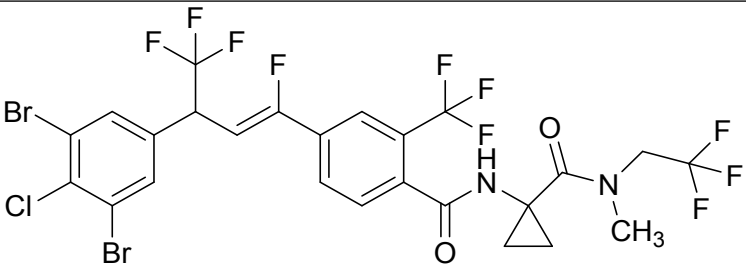
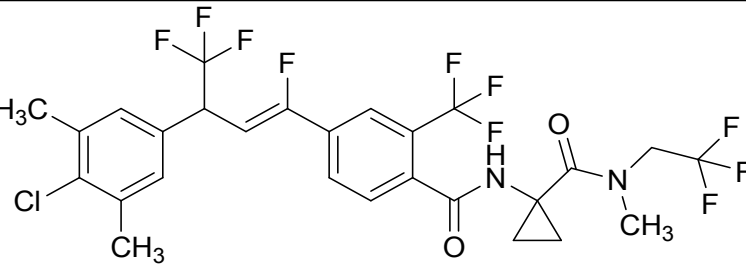
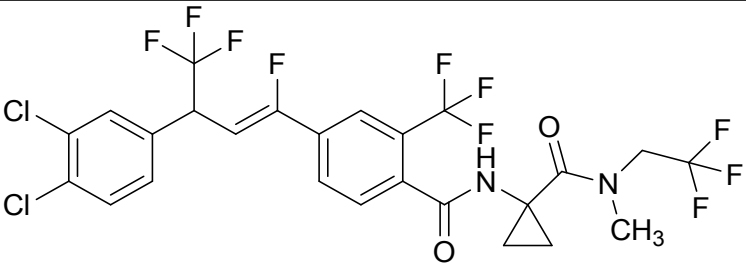
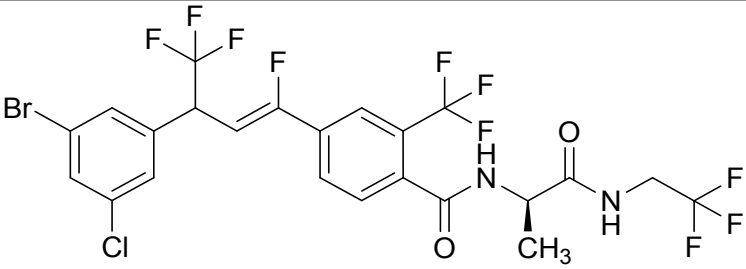
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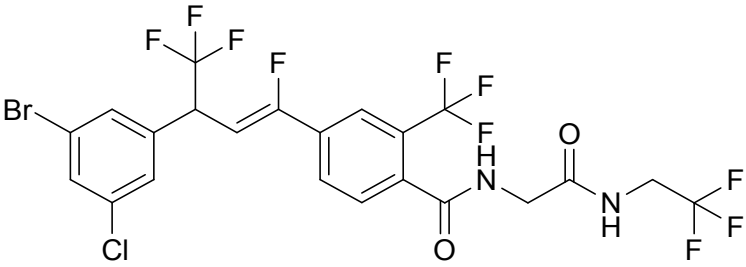
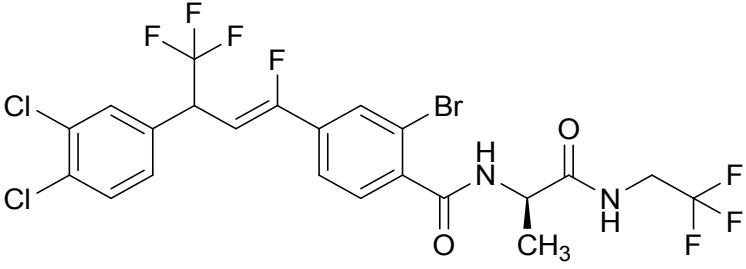
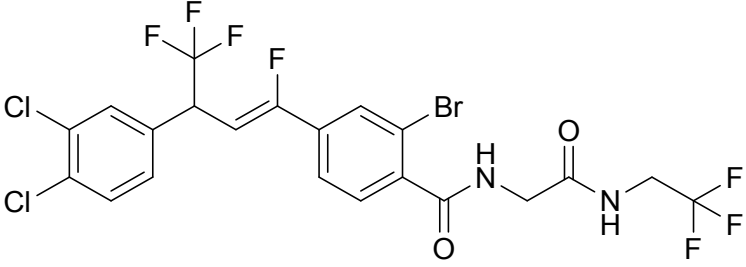
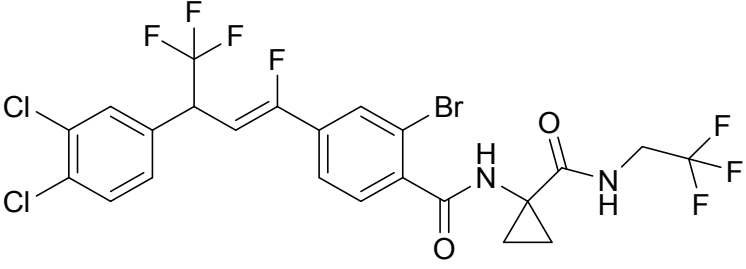
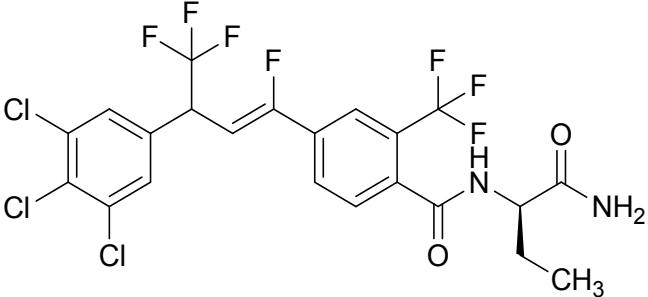
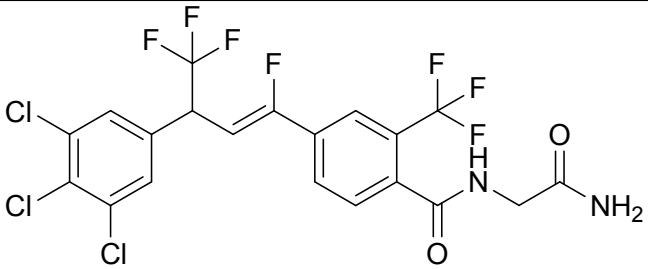
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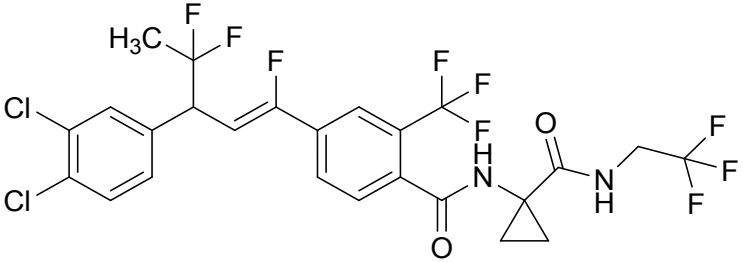
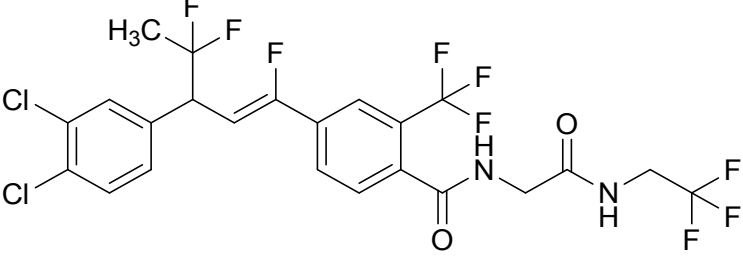
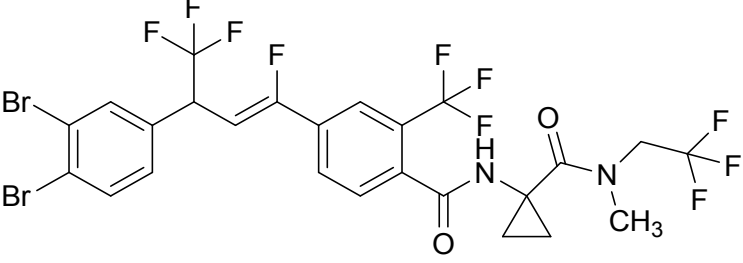
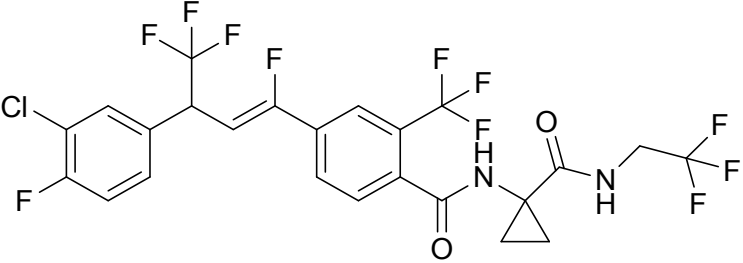
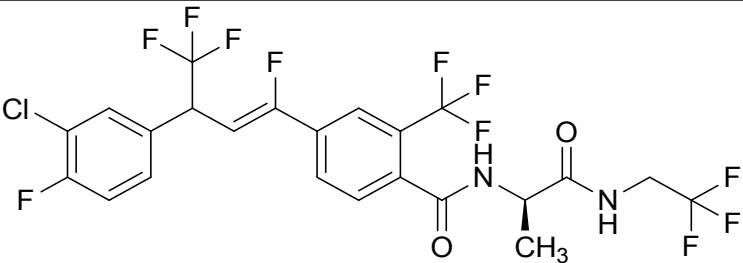
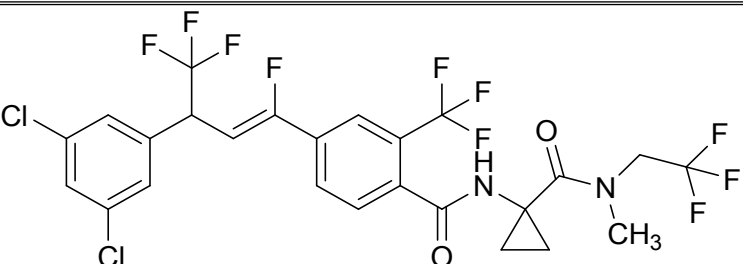
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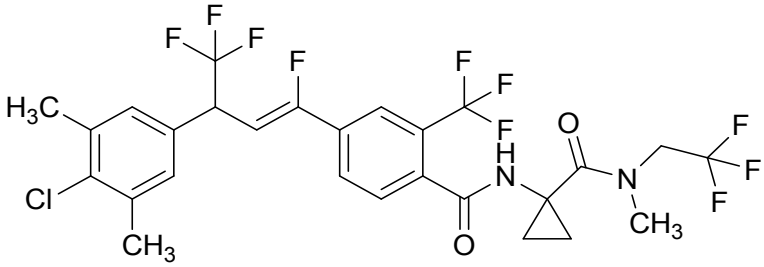
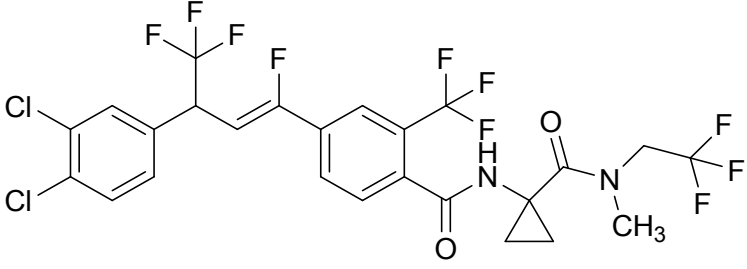
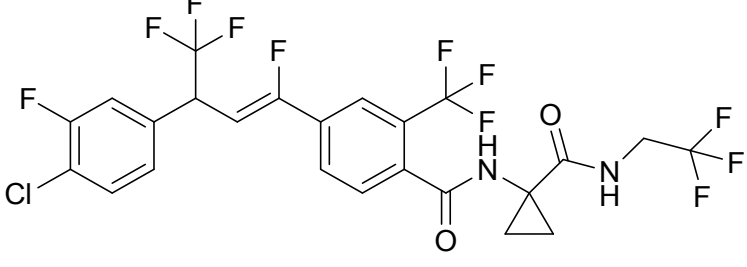
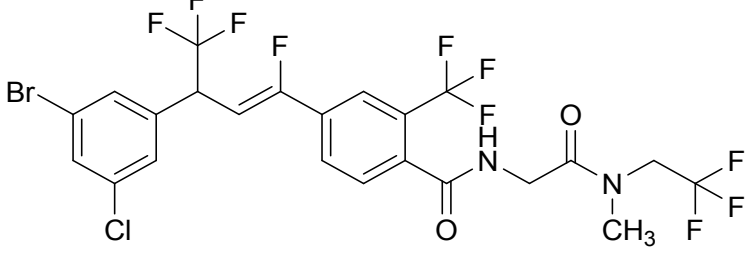
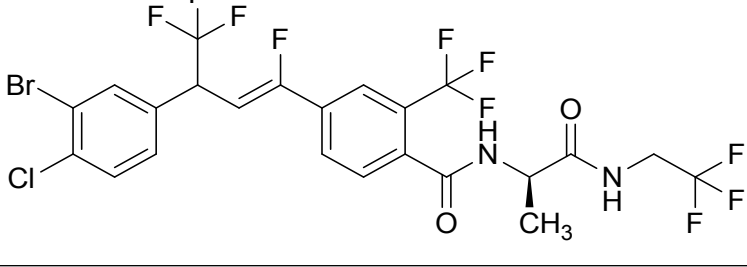
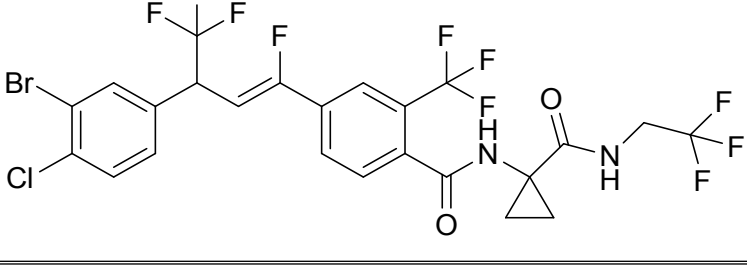
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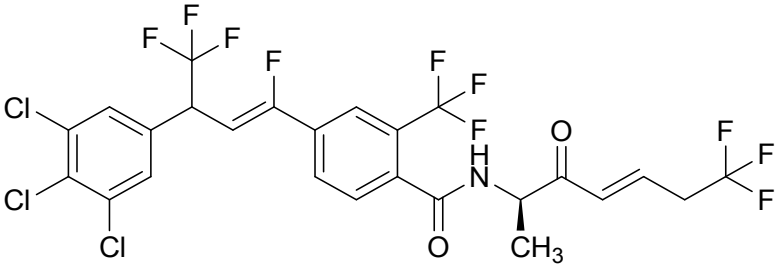
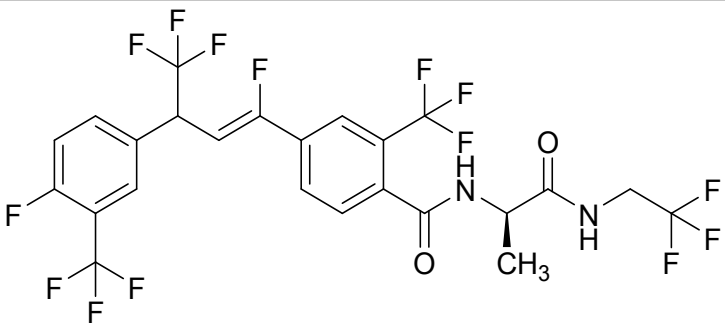
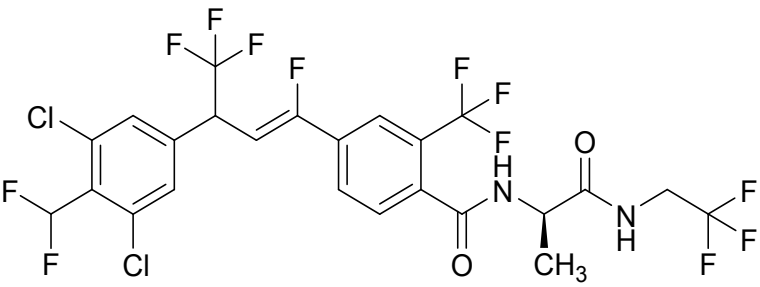
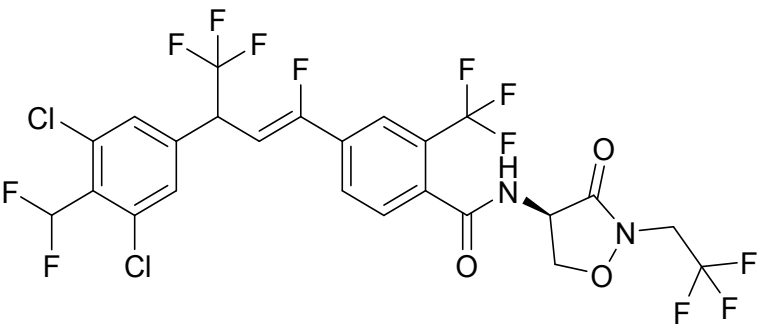
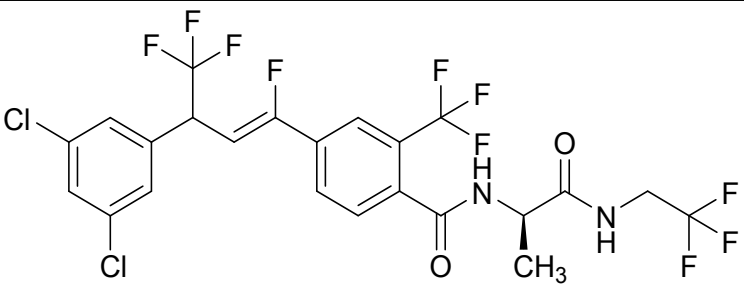
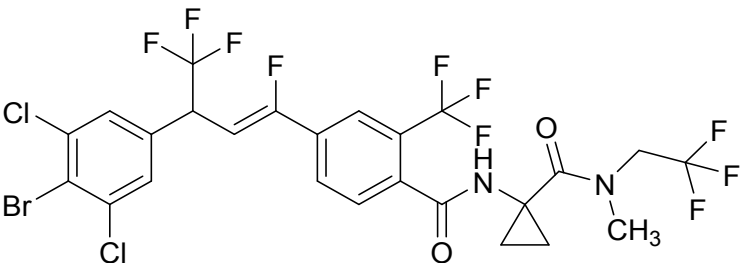
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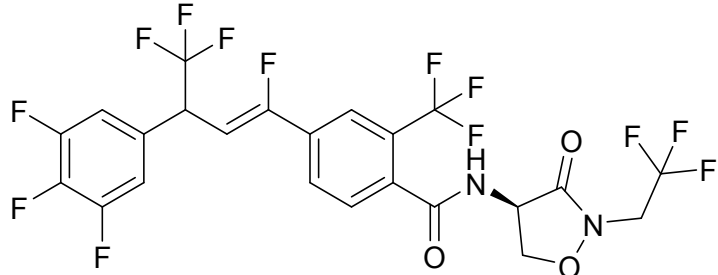
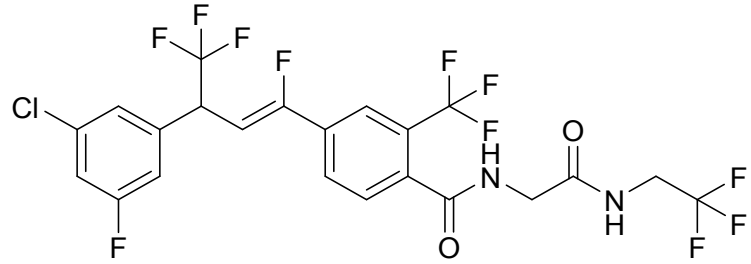
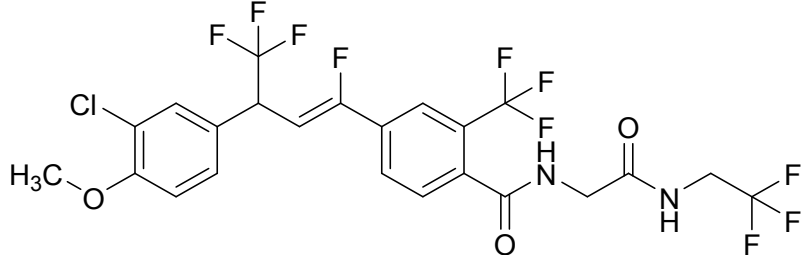
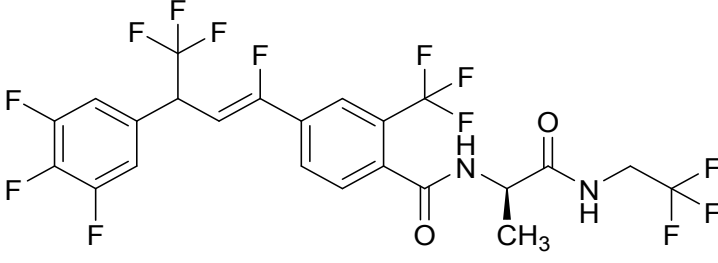
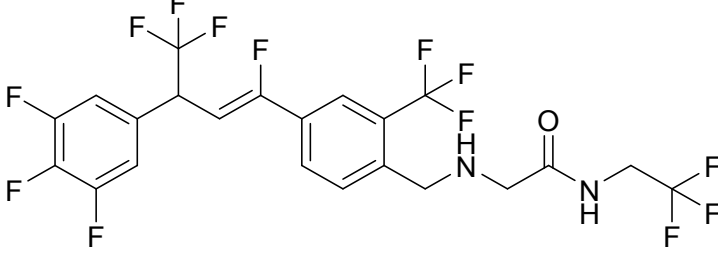
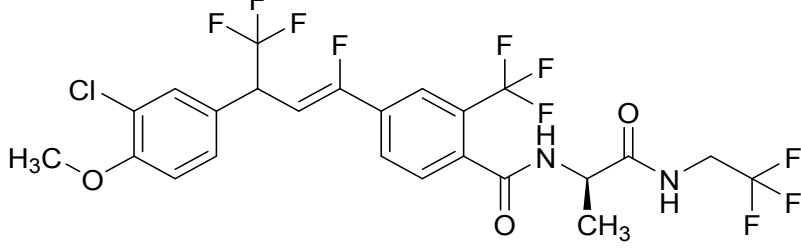
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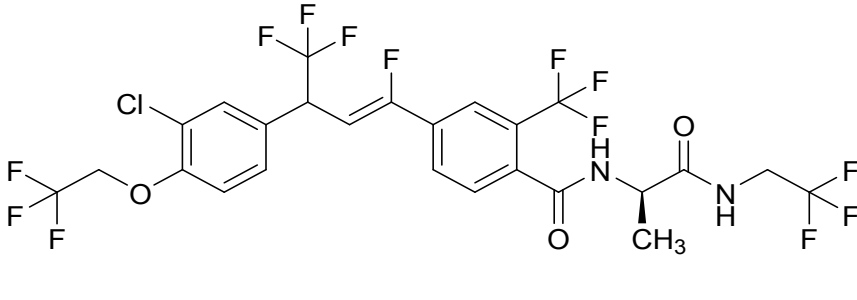
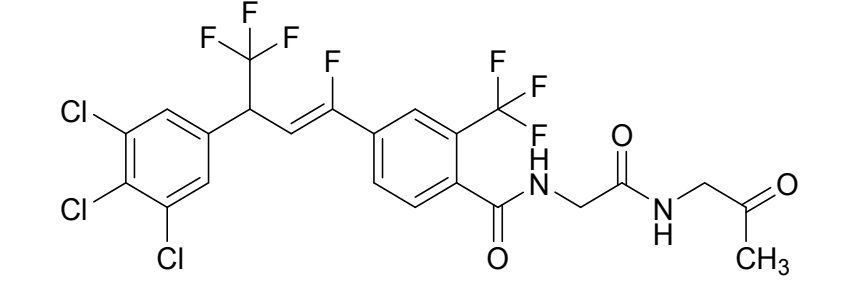
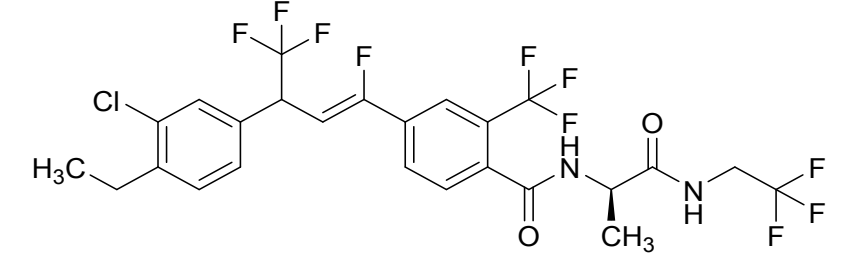
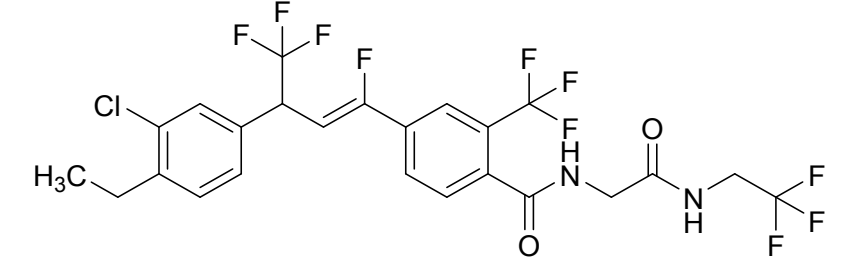
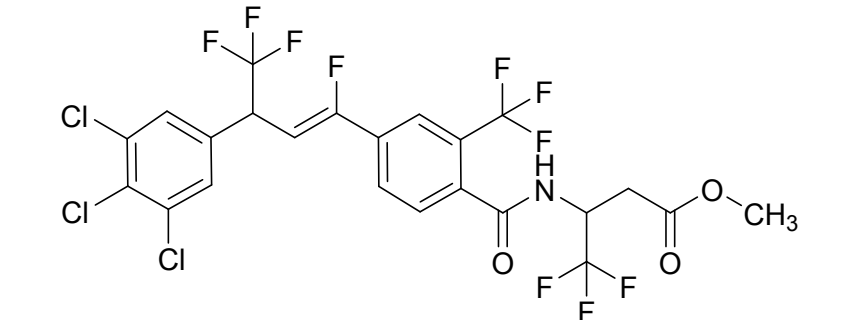
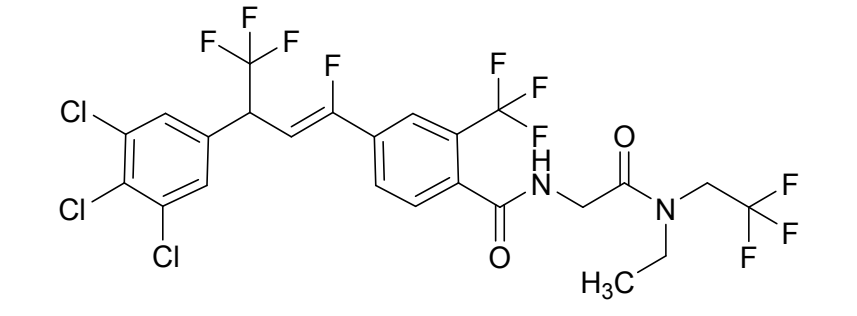
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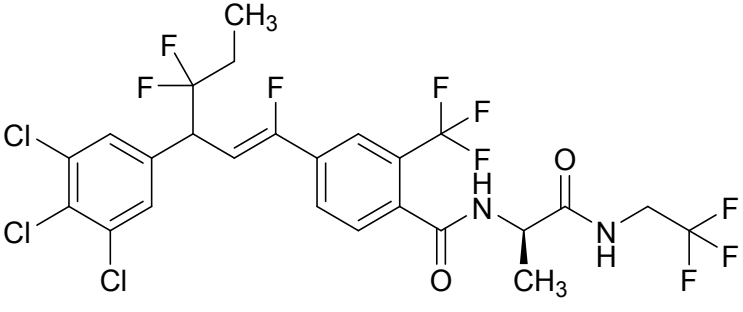
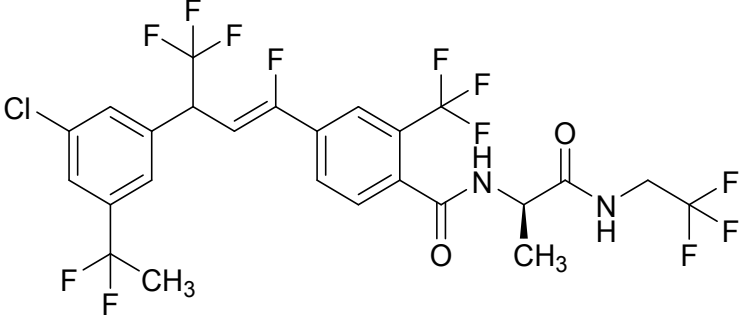
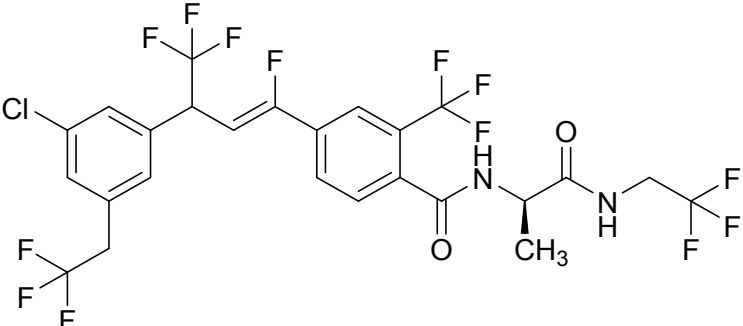
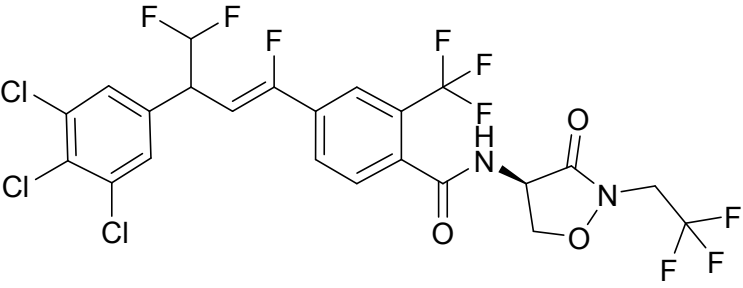
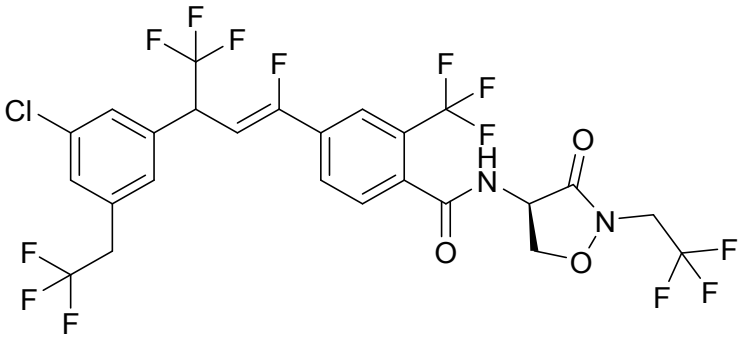
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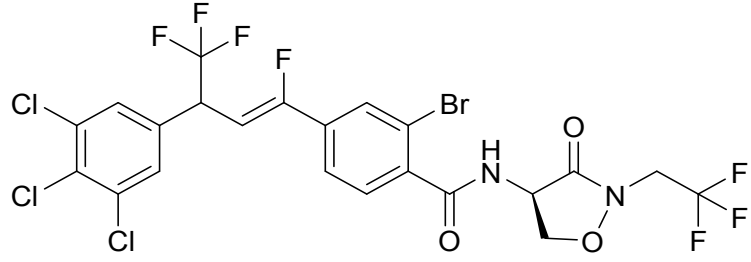
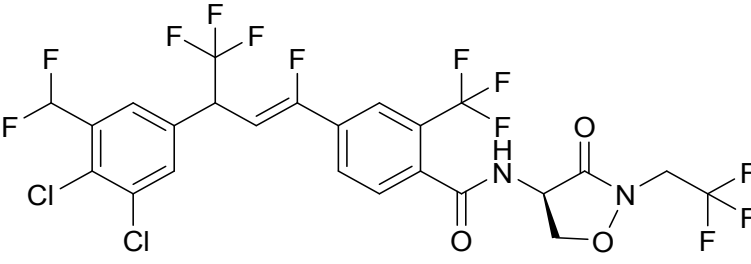
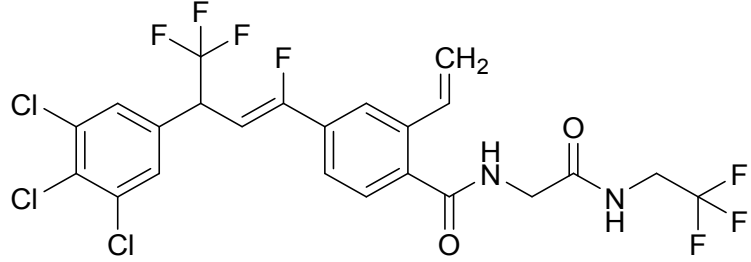
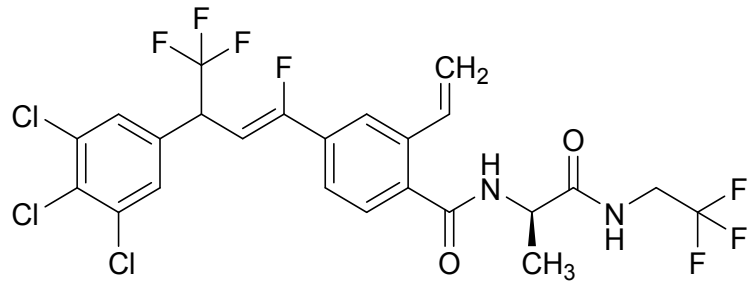
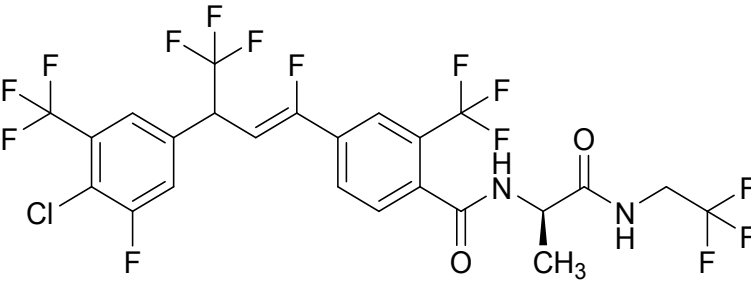
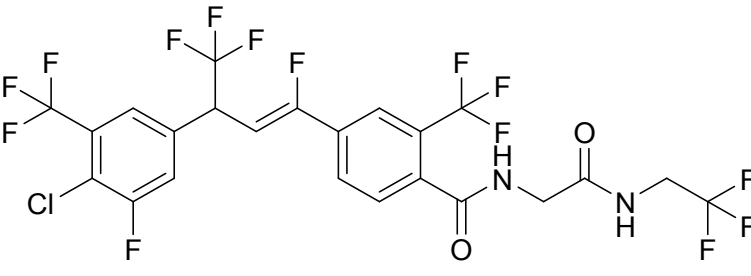
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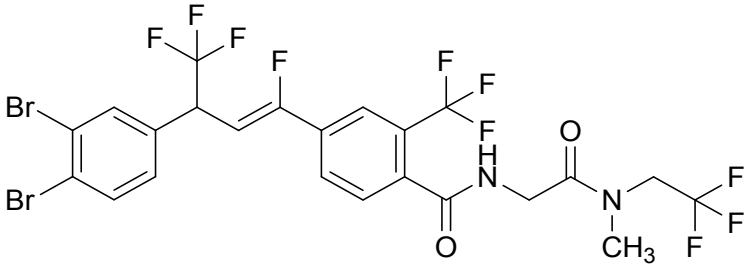
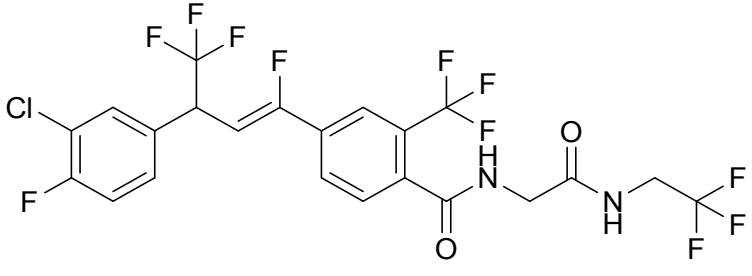
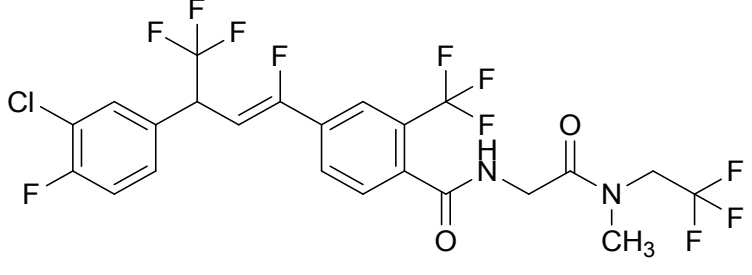
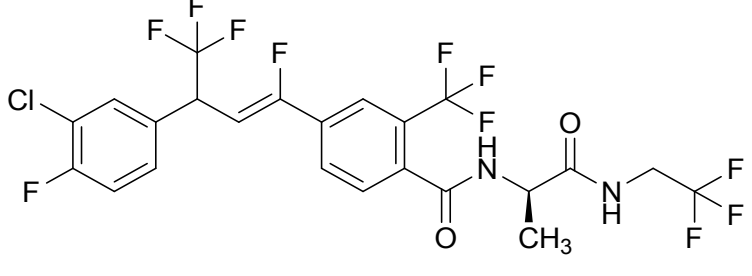
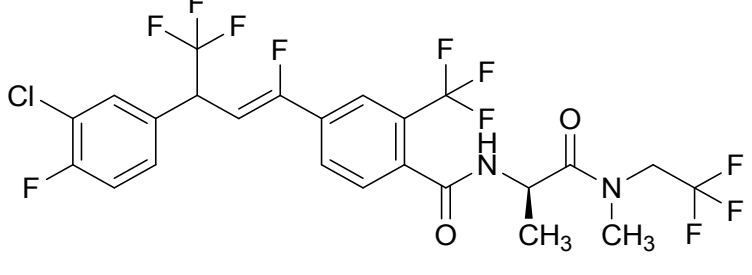
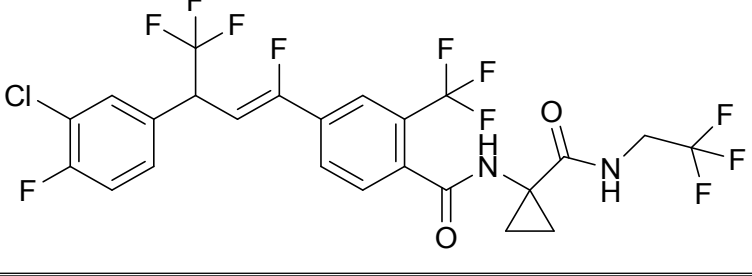
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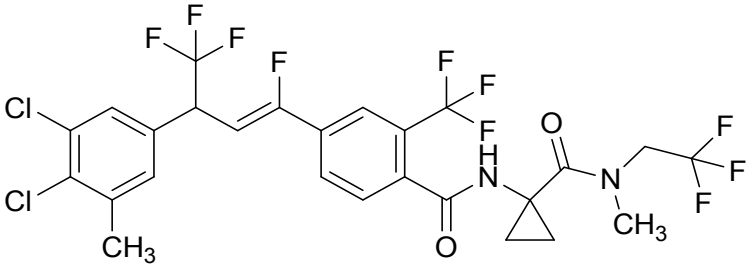
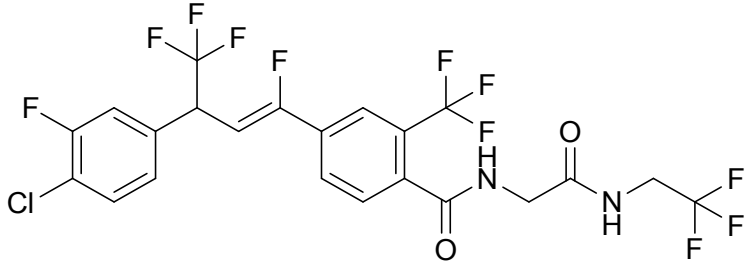
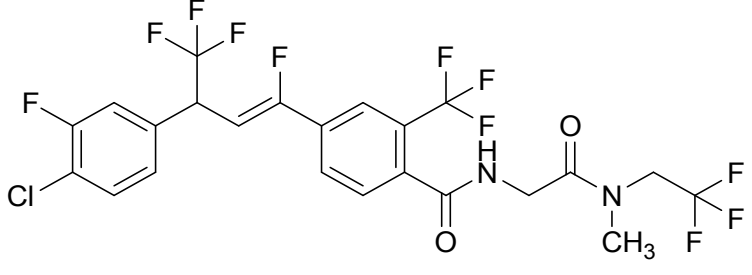
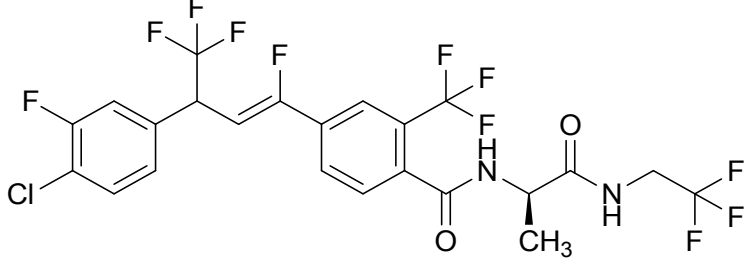
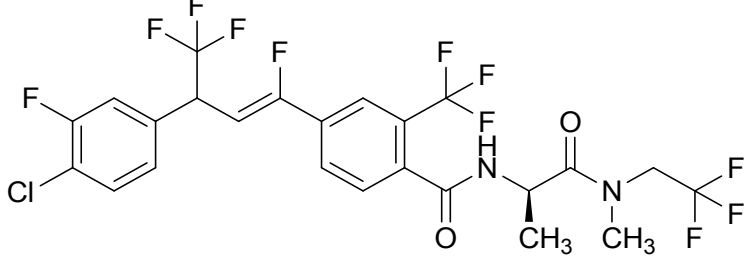
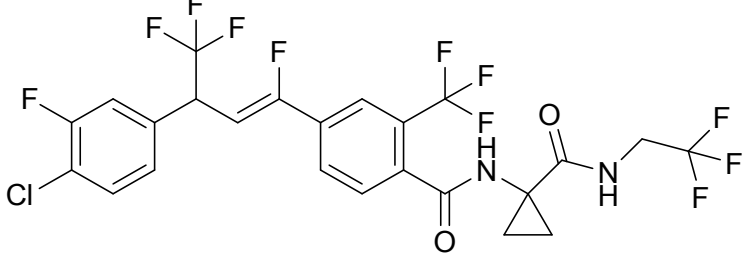
4. Una molécula de acuerdo con la Reivindicación 1 en donde dicha molécula se selecciona de una de las moléculas de la Tabla 1.

Tabla 1: Estructura y método de preparación de moléculas proféticas

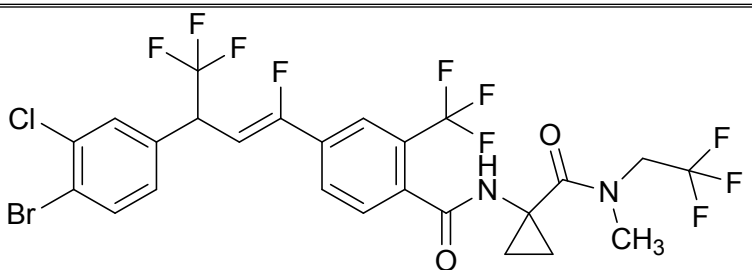
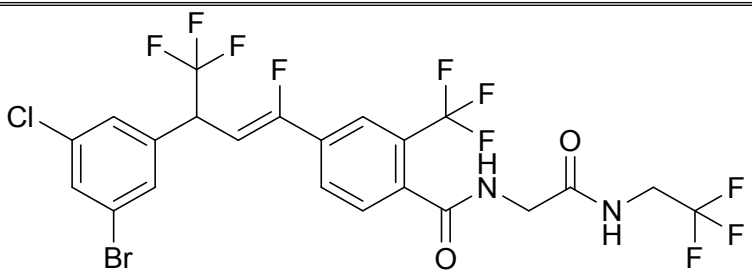
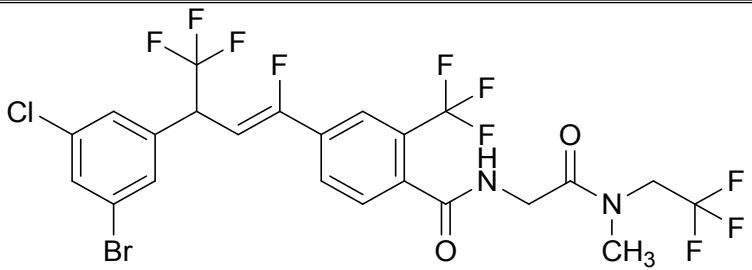
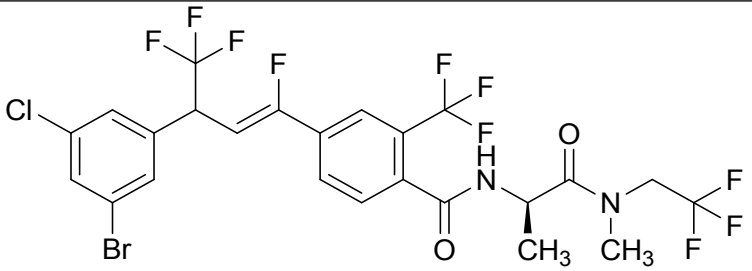
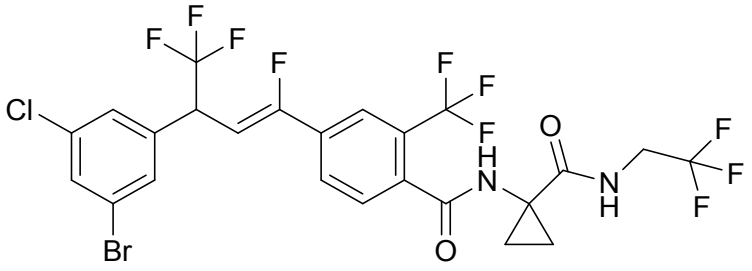
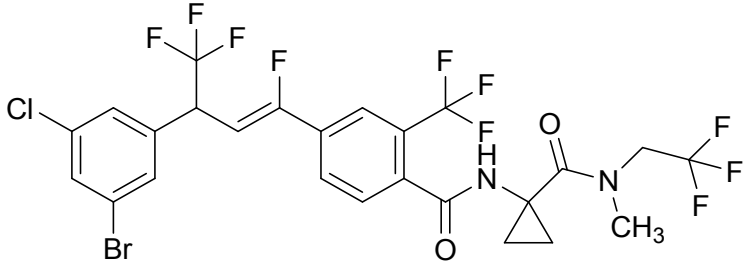
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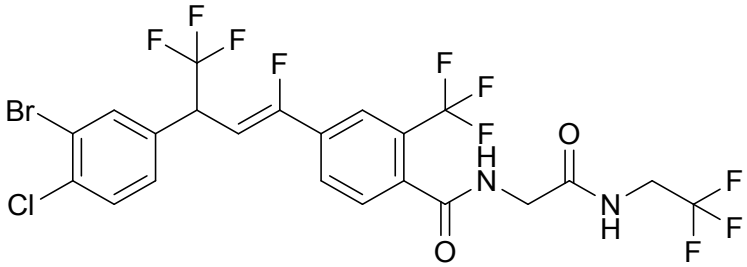
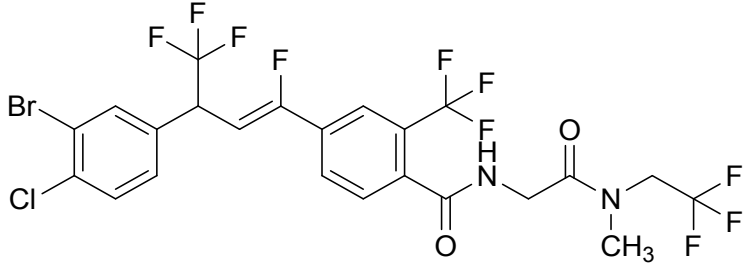
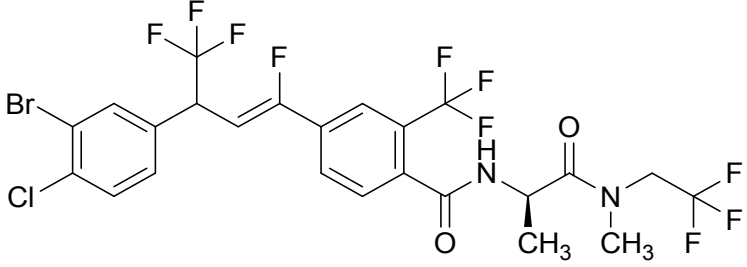
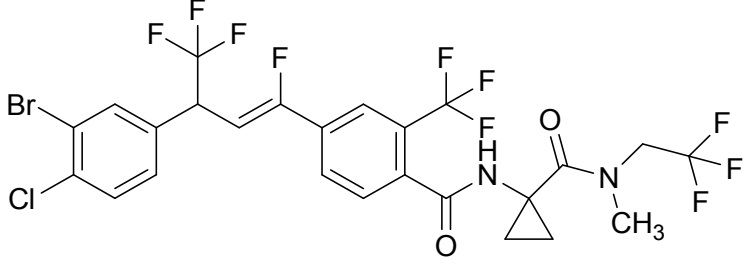
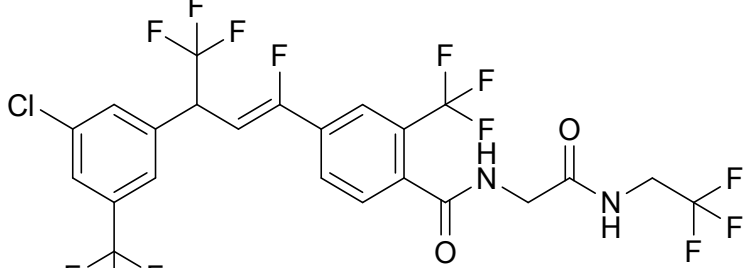
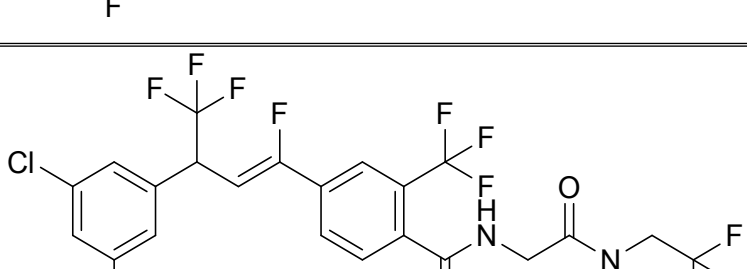
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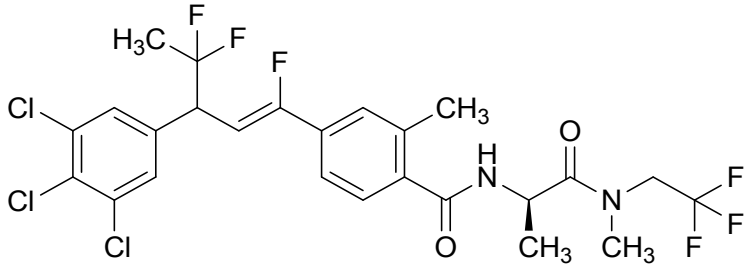
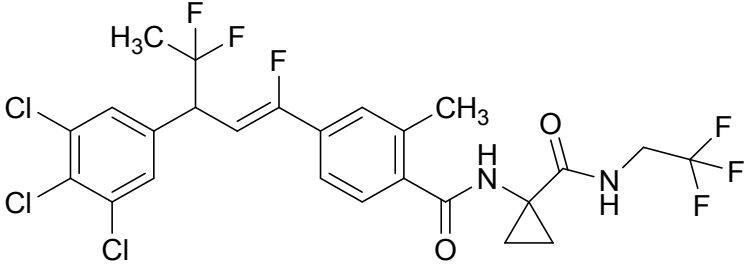
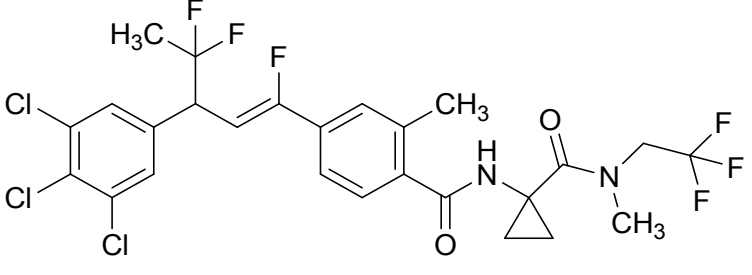
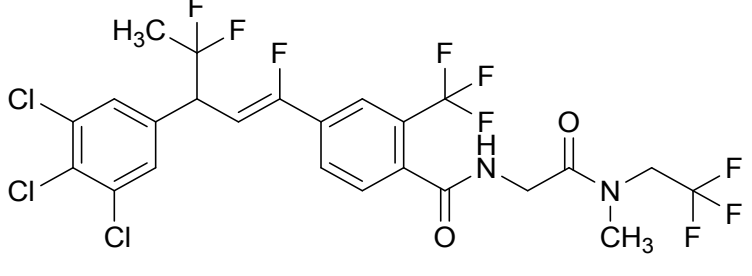
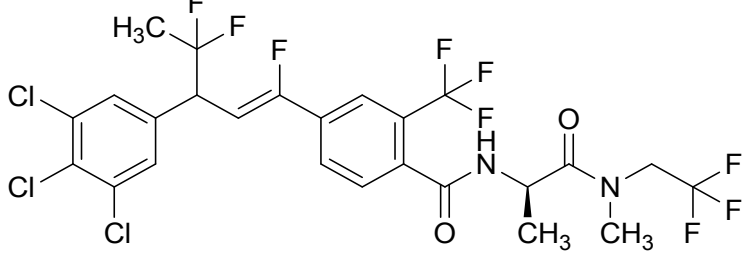
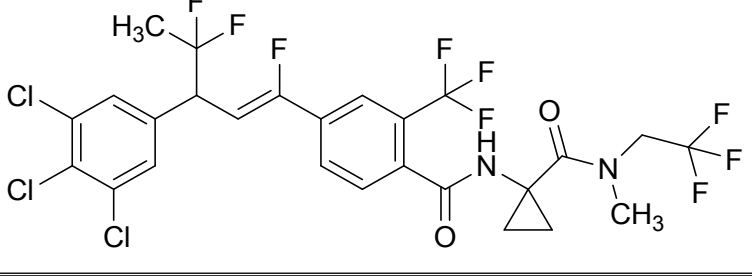
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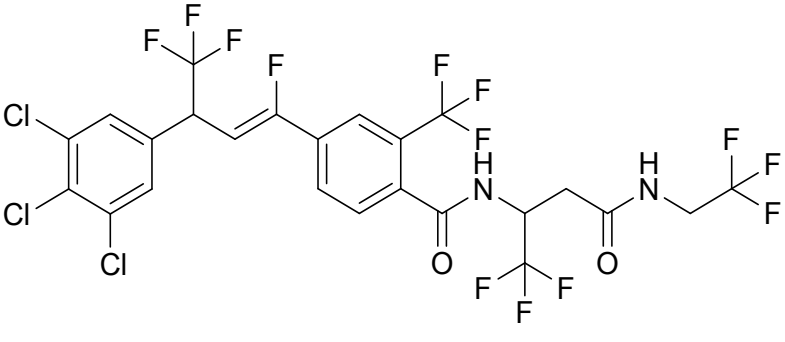
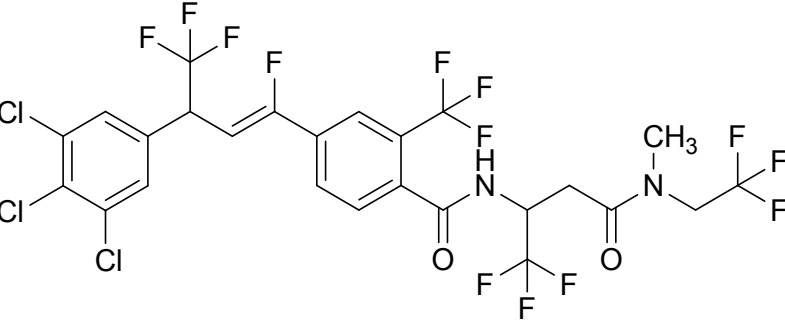
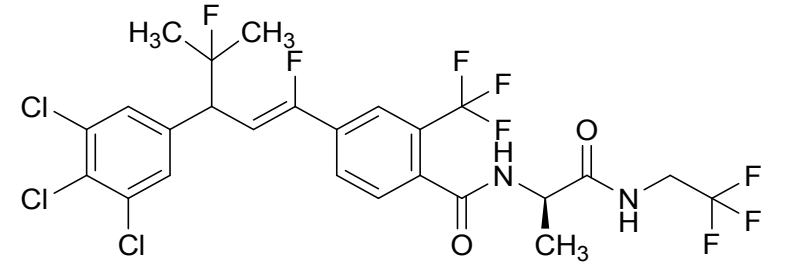
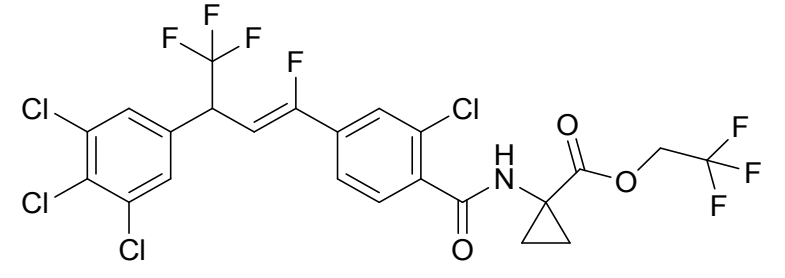
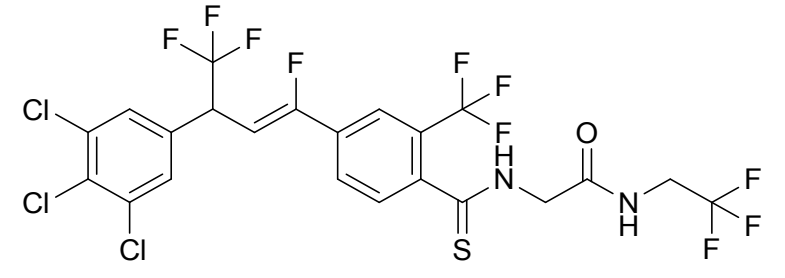
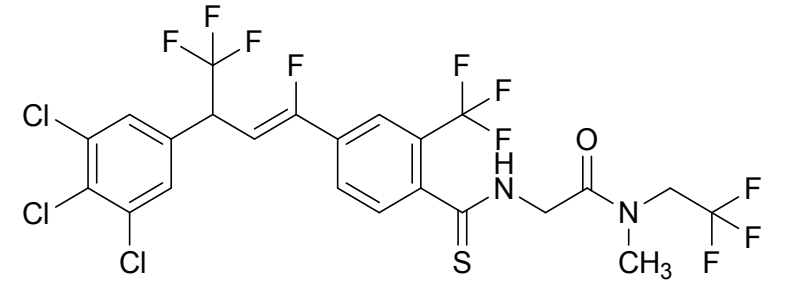
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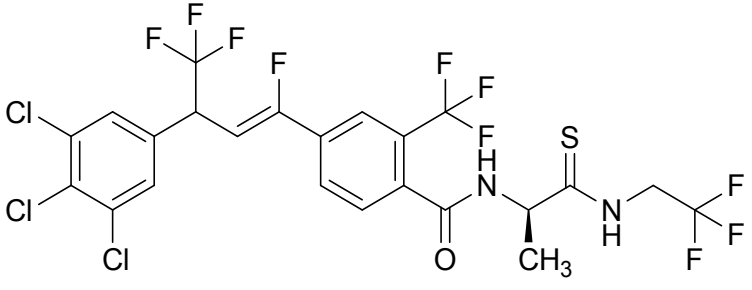
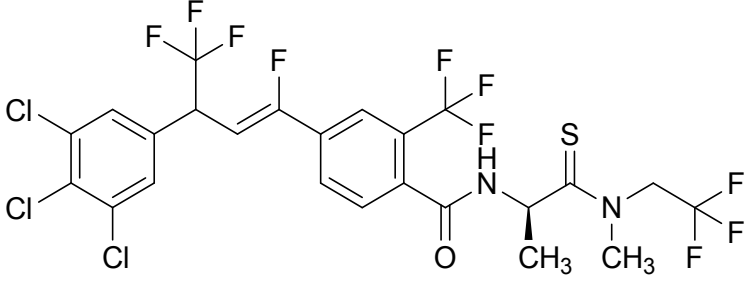
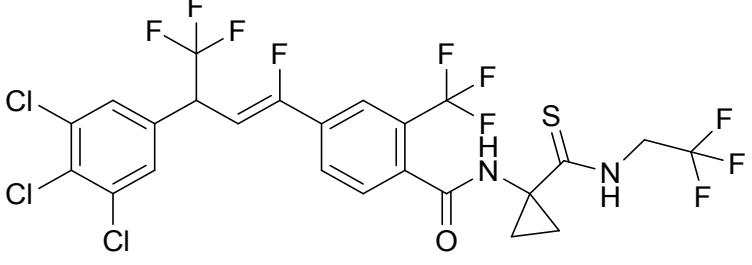
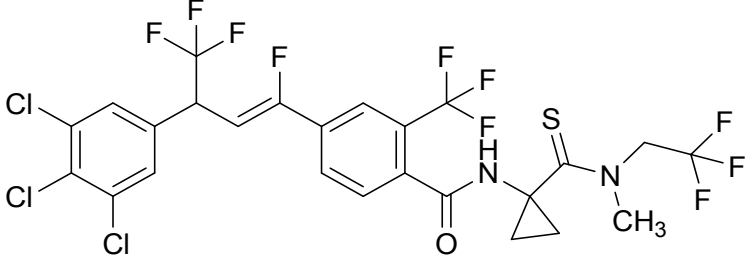
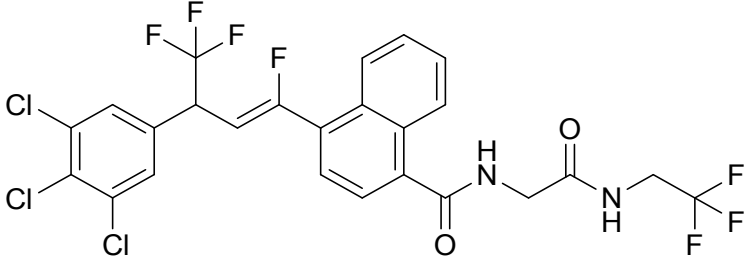
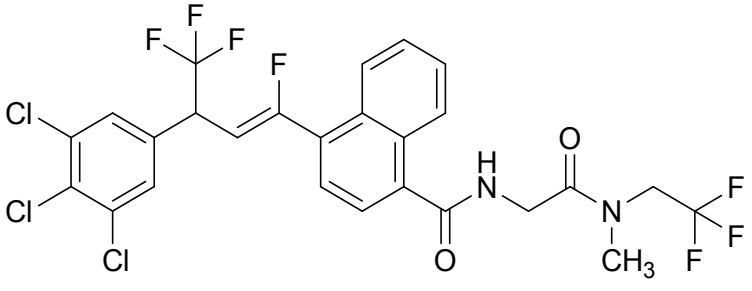
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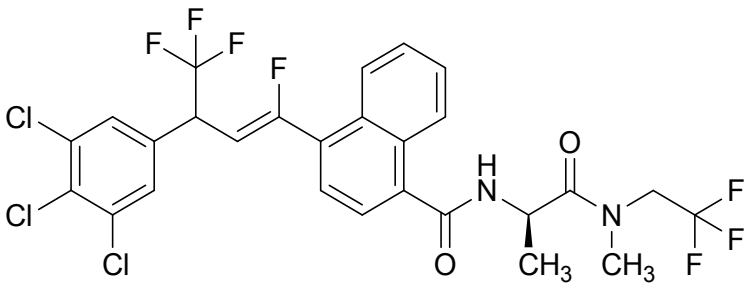
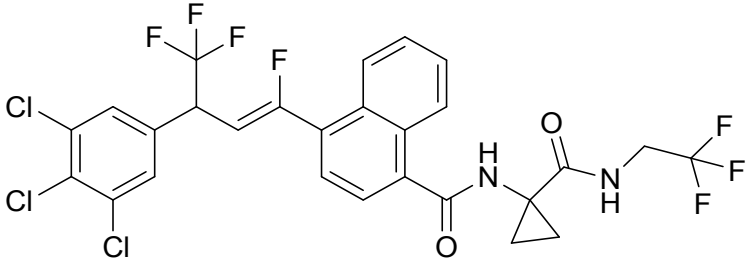
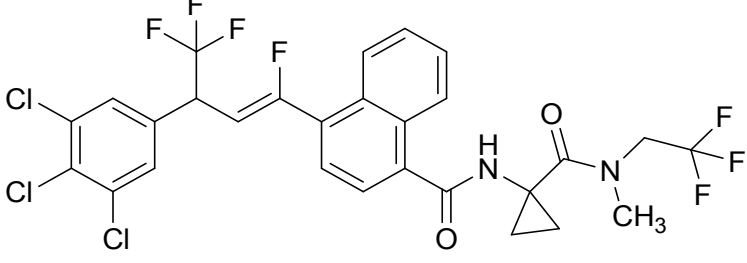
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5. Una composición plaguicida que comprende una molécula de acuerdo con cualquiera de las Reivindicaciones 1, 2, 3, o 4, que comprende además uno o más ingredientes activos.
6. Una composición plaguicida de acuerdo con la Reivindicación 5 en donde dicho ingrediente activo es de AIGA.
7. Una composición plaguicida de acuerdo con la Reivindicación 5 en donde dicho ingrediente activo se selecciona de **AI-1**, 1,3-dicloropropeno, clorpirifos, clorpirifos-metilo, hexaflumuron, metoxifenoza, noviflumuron, spinetoram, spinosad, sulfoxaflor y fluoruro de sulfurilo.
8. Una composición plaguicida que comprende una molécula de acuerdo con cualquiera de las reivindicaciones 1, 2, 3, o 4, que comprende un **Material MoA**.
9. Una composición plaguicida de acuerdo con la Reivindicación 7 en donde dicho **MoA Material** es de **MoAMGA**.

10. Una composición plaguicida de acuerdo con cualquier Reivindicación 5, 6, 7, 8, o 9, en donde la relación de peso de la molécula de acuerdo con Fórmula Uno con dicho ingrediente activo es

- (a). 100:1 a 1:100;
- (b). 50:1 a 1:50;
- (c). 20:1 a 1 a 20;
- (d). 10:1 a 1 :10;
- (e). 5:1 a 1:5;
- (f). 3:1 a 1:3;
- (g). 2:1 a 1:2; o
- (h). 1:1