

CHF-6333 xinafoate

Chemical Properties

CAS No. :	3071964-44-5
Formula:	C38H35F3N6O6
Molecular Weight:	728.73
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	CHF-6333 xinafoate is a neutrophil elastase (NE) inhibitor with an IC ₅₀ of 0.21 nM and a KD of 0.16 nM. It exhibits activity against both human (IC ₅₀ = 0.22 nM) and rat (IC ₅₀ = 3.63 nM) proteases and also inhibits proteinase 3 with an IC ₅₀ of 22 nM. This compound is applicable in bronchiectasis (BE) research.
In vitro	CHF6333 (Compound 15) xinafoate exhibits a half-life (t _{1/2}) exceeding 240 minutes in both human and rat liver microsomes at 1 μM concentration over 0-30 minutes. The binding rate to human plasma proteins is 60.0%, and to rat plasma proteins is 58.0% at a concentration of 10 μM for 4 hours. After a 1-hour incubation in mouse or human lung S9 fractions at 1 μM, over 80% of CHF6333 xinafoate remains unmetabolized. It has an IC ₅₀ greater than 10 μM for all CYP450 isoenzymes, including CYP1A1, CYP1A2, CYP2C8, CYP2C9, CYP2C19, CYP2D6, CYP2E1, CYP3A4, and CYP3A5. The IC ₅₀ for acetylcholinesterase is 24.7 μM, while it is greater than 100 μM for M2 receptors and 67.3 μM for M3 receptors. At 100 μM, CHF6333 xinafoate does not inhibit the hERG channel in HEK-293 cells, indicating no cardiovascular toxicity risk. Furthermore, it demonstrates no cytotoxicity at high concentrations (1-100 μM for 24 hours) in SAEC (human airway epithelial cells) and HepG2 (human liver cancer cells), showing good safety profile.
In vivo	Administration of CHF6333 (0.03-0.6 mg/kg, via tracheal route, single dose) xinafoate effectively prevents lung tissue damage in rats directly induced by NE.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3723 mL	6.8613 mL	13.7225 mL
5 mM	0.2745 mL	1.3723 mL	2.7445 mL
10 mM	0.1372 mL	0.6861 mL	1.3723 mL
50 mM	0.0274 mL	0.1372 mL	0.2745 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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