

CHF5407

Chemical Properties

CAS No. : 1004312-94-0

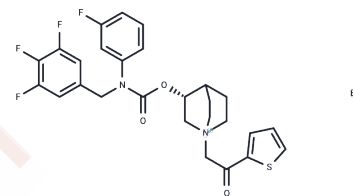
Formula: C₂₇H₂₅BrF₄N₂O₃S

Molecular Weight: 613.46

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	CHF5407(SVT-47060) is a potent and selective muscarinic M3 receptor antagonist with prolonged action at muscarinic receptors. CHF5407 has an effect on bronchospasm and may be used in the study of respiratory disorders. CHF5407 is a potent and selective muscarinic M3 receptor antagonist with prolonged action at muscarinic receptors.
Targets(IC50)	AChR
In vitro	Producing a potent (pIC ₅₀ =9.0-9.6) and long-lasting (up to 24 h) inhibition of M3 receptor-mediated contractile responses to carbachol in the guinea pig isolated trachea and human isolated bronchus, CHF5407 exhibits a very slow dissociation from M3 receptors (hM ₃ ; t _{1/2} =166 min) and markedly short-acting effects at M2 receptors (hM ₂ ; t _{1/2} =31 min)[1].
In vivo	Administered intratracheally in a single dose of 100 µl at doses of 0.1, 0.3, and 1 nmol/kg, CHF5407 exerted a dose-dependent and potent inhibition of ACh-induced bronchospasm (20 g/kg; i.v.) in guinea pigs (450-550 g), with an ED ₅₀ value of 0.15 nmol/kg[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6301 mL	8.1505 mL	16.301 mL
5 mM	0.326 mL	1.6301 mL	3.2602 mL
10 mM	0.163 mL	0.815 mL	1.6301 mL
50 mM	0.0326 mL	0.163 mL	0.326 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.

Reference

Villetti G, et al. Bronchodilator activity of(3R)-3-[[[(3-fluorophenyl)[(3,4,5-trifluorophenyl)methyl]amino] carbonyl]oxy]-1-[2-oxo-2-(2-thienyl)ethyl]-1-azoniabicyclo[2.2.2]octane bromide (CHF5407), a potent, long-acting, and selective muscarinic M3 receptor antagonist. J Pharmacol Exp Ther. 2010 Dec;335(3):622-35.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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