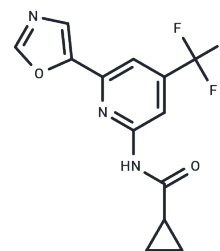


Cholesterol 24-hydroxylase-IN-3

Chemical Properties

CAS No. :	1630746-27-8
Formula:	C ₁₃ H ₁₀ F ₃ N ₃ O ₂
Molecular Weight:	297.23
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	Cholesterol 24-hydroxylase-IN-3 is an orally bioavailable, selective, brain-penetrant CH24H inhibitor (IC ₅₀ = 23 nM), classified as a 1,3-oxazole derivative. It inhibits CH24H enzyme activity competitively by coordinating the 1,3-oxazole nitrogen atom with the heme iron, with the cyclopropyl group occupying a hydrophobic pocket. Cholesterol 24-hydroxylase-IN-3 has potential applications in research on neurological disorders like epilepsy.
Targets(IC ₅₀)	Cytochromes P450
In vitro	Cholesterol 24-hydroxylase-IN-3 (Compound 4L) (10 μM, 1 h) selectively inhibits CH24H while exhibiting minimal inhibition of other CYP enzymes, with inhibition rates of 7.3% for CYP3A4, 10% for CYP2C8, 8.5% for CYP2C9, and 49% for CYP2D6.
In vivo	Cholesterol 24-hydroxylase-IN-3 (Compound 4L) at a dose of 30 mg/kg (i.g, single dose) effectively crosses the blood-brain barrier in mice and reduces levels of 24S-hydroxycholesterol (24HC) in the brain, offering a novel therapeutic approach for neurological disorders.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3644 mL	16.822 mL	33.644 mL
5 mM	0.6729 mL	3.3644 mL	6.7288 mL
10 mM	0.3364 mL	1.6822 mL	3.3644 mL
50 mM	0.0673 mL	0.3364 mL	0.6729 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

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