

Chst15-IN-1

Chemical Properties

CAS No. : 2158198-77-5

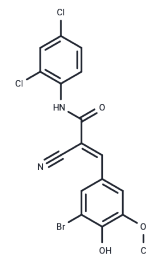
Formula: C17H11BrCl2N2O3

Molecular Weight: 442.09

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	Chst15-IN-1 is a selective, reversible, covalent inhibitor of the Chst15 enzyme that suppresses sulfation of chondroitin sulfate-E (CS-E) and related sulfotransferases, attenuating the inhibitory effects of chondroitin sulfate proteoglycans (CSPGs) and making it a promising candidate for promoting neuronal repair.
Targets(IC50)	Others,Sulfotransferase
In vitro	Chst15-IN-1, when acting on Neu7 astrocytes at a concentration of 25 μ M for 24 hours, exhibits selectivity towards sulfotransferase, which is significantly higher than its selectivity towards various proteins containing active cysteine residues. At concentrations of 10 μ M and 25 μ M, Chst15-IN-1 significantly reduces the expression level of chondroitin sulfate-E (CS-E) on the cell surface of Neu7 astrocytes, with this reduction effect demonstrating a dose-dependent manner [1].
In vivo	Chst15-IN-1, when administered intravenously (i.v.) at a dose of 3.0 mg/kg, exhibits the following pharmacokinetic characteristics: moderate clearance with a value of 21 mL/ (minkg); moderate volume of distribution with a value of 0.97 L/kg; and a relatively short terminal half-life with a value of 1.6 hours [1].

Solubility Information

Solubility	DMSO: 40 mg/mL (90.48 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.262 mL	11.3099 mL	22.6198 mL
5 mM	0.4524 mL	2.262 mL	4.524 mL
10 mM	0.2262 mL	1.131 mL	2.262 mL
50 mM	0.0452 mL	0.2262 mL	0.4524 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

Cheung ST, et al. Discovery of a Small-Molecule Modulator of Glycosaminoglycan Sulfation. ACS Chem Biol. 2017; 12(12):3126-3133.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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