Data Sheet (Cat.No.T40046)

TargetMol

UGT8-IN-1

Chemical Properties

CAS No. :	2414349-93-0
Formula:	C20H22F6N4O4S
Molecular Weight:	528.47
Storage:	Keep away from moisture,Store under nitrogen 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	UGT8-IN-1 is an orally active, blood-brain barrier-penetrating small-molecule inhibitor that targets UGT8 (ceramide galactosyltransferase). By inhibiting pathways involved in sphingolipid synthesis, it is used in research into the mechanisms of neurological disorders such as lysosomal storage diseases.
Targets(IC50)	UGT
In vivo	UGT8-IN-1 (compound 19) exhibits the T1/2 of 4.3 h, 1.13 h and 13.6 h by iv (1 mg/kg) administration in rat, mouse and dog, respectively. UGT8-IN-1 (compound 19) shows F% of 40%, 34% and 52% by oral (3 mg/kg) administration in rat, mouse and dog, respectively. UGT8-IN-1 (compound 19, orally twice a day for three days) shows ≥90% inhibition of incorporation of 13 C-Gal into GalCer and SFT, at all three doses tested, with the estimated ED 50 s of 3 mg/kg for inhibition of both SFT and GalCer. UGT8-IN-1 (compound 19) has very high plasma protein and tissue binding (>99%)[1].

Solubility Information

Solubility	DMSO: 92 mg/mL (174.09 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8923 mL	9.4613 mL	18.9226 mL
5 mM	0.3785 mL	1.8923 mL	3.7845 mL
10 mM	0.1892 mL	0.9461 mL	1.8923 mL
50 mM	0.0378 mL	0.1892 mL	0.3785 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

Sukanthini Thurairatnam, et al. Brain Penetrable Inhibitors of Ceramide Galactosyltransferase for the Treatment of Lysosomal Storage Disorders. ACS Med Chem Lett. 2020 Jun 16;11(10):2010-2016.