

D5D-IN-326

Chemical Properties

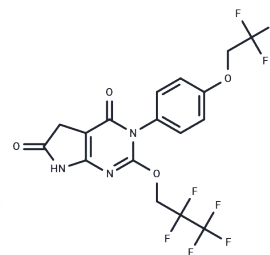
CAS No. : 1236767-85-3

Formula: C17H11F8N3O4

Molecular Weight: 473.27

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	D5D-IN-326 is an orally active delta-5 desaturase (D5D) inhibitor (IC50s: 72 and 22 nM for rat and human D5D in enzymic and cell-based assays). It has no effect on D6D or D9D activity. D5D-IN-326 reduces insulin resistance and decreases body weight in diet-induced obese C57BL/6j mice.
Targets(IC50)	Others, Stearoyl-CoA Desaturase (SCD)
In vivo	D5D-IN-326 administered orally at a dose of 10 mg/kg for six weeks notably reduces the gene expression levels of Ccl2, Cd68, Adgre1, and Il6, as well as epididymal Lep and Adipoq mRNAs, which are significantly elevated in mice with diet-induced obesity (DIO) following a high-fat diet (HFD). Additionally, at a dosage of 10 mg/kg, D5D-IN-326 progressively decreases body weight over the same period. However, lower doses (0.1 and 1 mg/kg) prove ineffective in altering body weight or addressing DIO in mice after six weeks of treatment.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.113 mL	10.5648 mL	21.1296 mL
5 mM	0.4226 mL	2.113 mL	4.2259 mL
10 mM	0.2113 mL	1.0565 mL	2.113 mL
50 mM	0.0423 mL	0.2113 mL	0.4226 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

Yashiro H, et al. A Novel Selective Inhibitor of Delta-5 Desaturase Lowers Insulin Resistance and Reduces Body Weight in Diet-Induced Obese C57BL/6J Mice. PLoS One. 2016 Nov 10;11(11):e0166198.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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