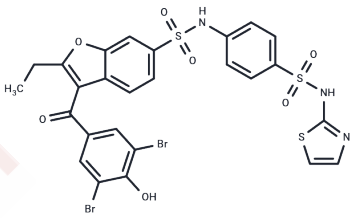
Data Sheet (Cat.No.T24073)

PTP1B-IN-4

Chemical Properties



CAS No. : 765317-72-4

Formula: C26H19Br2N3O7S3

Molecular Weight: 741.45

Storage: Store at low temperature,Keep away from direct sunlight
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	PTP1B-IN-4 (NUN-17724) is an allosteric PTP1B inhibitor with an IC50 of 8 μM. PTP1B-IN-4 can be used in studies about obesity and diabetes.
Targets(IC50)	Phosphatase
In vitro	In CHO cells overexpressing human IR, PTP1B-IN-4 (250 μM) stimulates the phosphorylation of insulin receptors. PTP1B-IN-4 induces phosphorylation of IRS-1 and Akt which are proteins downstream of the insulin receptor[3].

Solubility Information

Solubility	DMSO: 90 mg/mL (121.38 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (4.45 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3487 mL	6.7435 mL	13.4871 mL
5 mM	0.2697 mL	1.3487 mL	2.6974 mL
10 mM	0.1349 mL	0.6744 mL	1.3487 mL
50 mM	0.027 mL	0.1349 mL	0.2697 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

Steinhauer J, et al. Drosophila lysophospholipid acyltransferases are specifically required for germ cell development. Mol Biol Cell. 2009 Dec;20(24):5224-35.
Leblanc MR, Johnson CE, Wilson PW. Influence of pressing method on juice stilbene content in muscadine and bunch grapes. J Food Sci. 2008 May;73(4):H58-62.
Wiesmann, C., et al. Allosteric inhibition of protein tyrosine phosphatase 1B. Nature Structural & Molecular Biology, 2004. 11(8), 730–737.
Jin, T., et al. Selective binding modes and allosteric inhibitory effects of lupane triterpenes on protein tyrosine phosphatase 1B. Scientific Reports, 2016. 6(1).