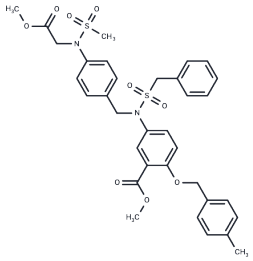
Data Sheet (Cat.No.T4256)

PTP1B-IN-2

Chemical Properties



CAS No. : 1919853-46-5

Formula: C34H36N2O9S2

Molecular Weight: 680.79

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	PTP1B-IN-2 is an effective protein tyrosine phosphatase 1B (PTP1B) inhibitor(IC50=50 nM).
Targets(IC50)	Phosphatase
In vitro	PTP1B-IN-2 extends deep into the active site pocket, forming several hydrogen bonds and hydrophobic interactions with key residues of the catalytic site. PTP1B-IN-2 greatly enhances insulin-mediated IRβ phosphorylation at concentrations of 15 μM and 30 μM.
Kinase Assay	The PTP1B enzymatic assay, the total volume of 100 μL per well contains15 nM recombinant PTP1B protein, 2 mM p-nitrophenylphosphonic acid (pNPP), 1 mM dithiothreitol and 1 mM EDTA (pH 6.5). After 30 min incubation at 37℃, end the reaction by addition of 2.5 M NaOH. The hydrolysis product, pNP, is detected at the absorbance at 405 nm.

Solubility Information

Solubility	DMSO: 45 mg/mL (66.1 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4689 mL	7.3444 mL	14.6888 mL
5 mM	0.2938 mL	1.4689 mL	2.9378 mL
10 mM	0.1469 mL	0.7344 mL	1.4689 mL
50 mM	0.0294 mL	0.1469 mL	0.2938 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.

Reference

Liu P, et al. Discovery of novel, high potent, ABC type PTP1B inhibitors with TCPTP selectivity and cellular activity. Eur J Med Chem. 2016 Aug 8;118:27-33.
Wu R, Wang C, Li Z, et al. SOX2 promotes resistance of melanoma with PD-L1 high expression to T-cell-mediated cytotoxicity that can be reversed by SAHA. Journal for immunotherapy of cancer. 2020 Nov;8(2):e001037.
Wu R, Wang C, Li Z, et al. SOX2 promotes resistance of melanoma with PD-L1 high expression to T-cell-mediated cytotoxicity that can be reversed by SAHA[J]. Journal for immunotherapy of cancer. 2020, 8(2).

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