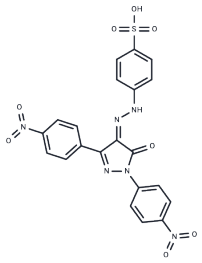
Data Sheet (Cat.No.T39167)

TargetMol

GS-493

Chemical Properties



CAS No. : 1710337-31-7

Formula: C21H14N6O8S

Molecular Weight: 510.44

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	GS-493, a highly specific protein tyrosine phosphatase SHP2 (PTPN11) inhibitor, exhibits remarkable potency with an IC50 of 71 nM. It displays 29- and 45-fold greater affinity towards SHP2 compared to its related counterparts, SHP1 and PTP1B, respectively. In addition, GS-493 impedes both cellular motility and growth of cancer cells, portraying promising antitumor effects.
Targets(IC50)	Others,Phosphatase
In vitro	GS-493, at concentrations ranging from 0.0625 to 10 μM, inhibits hepatocyte growth factor (HGF)-induced epithelial-mesenchymal transition in human pancreatic adenocarcinoma (HPAF) cells[1]. When administered at 40 μM for several days, it significantly reduces growth and decreases the colony formation of the human non-small cell lung cancer (NSCL) cell line LXFA 526L in soft agar to 32%[1].
In vivo	GS-493, administered intraperitoneally at a dosage of 46 mg/kg daily for 27 days, significantly inhibits tumor growth in a murine xenograft model using NMRI nu/nu mice [1]. This dosage equates to 45.93 mg in 3 mL DMSO per kg. The result indicates a substantial reduction in tumor growth.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9591 mL	9.7955 mL	19.5909 mL
5 mM	0.3918 mL	1.9591 mL	3.9182 mL
10 mM	0.1959 mL	0.9795 mL	1.9591 mL
50 mM	0.0392 mL	0.1959 mL	0.3918 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

Grosskopf S, et al. Selective inhibitors of the protein tyrosine phosphatase SHP2 block cellular motility and growth of cancer cells in vitro and in vivo. ChemMedChem. 2015;10(5):815-826.

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