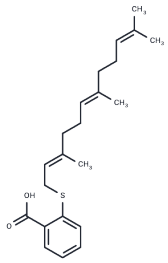
Data Sheet (Cat.No.T6163)

TargetMol

Salirasib

Chemical Properties



CAS No. : 162520-00-5

Formula: C22H30O2S

Molecular Weight: 358.54

Appearance: no data available

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

Biological Description

Description	Salirasib (Farnesyl Thiosalicylic Acid)(Ki=2.6 μM), an effective competitive prenylated protein methyltransferase (PPMTase) inhibitor, inhibits Ras methylation with potential antineoplastic activity.
Targets(IC50)	Autophagy,Ras
In vitro	Salirasib inhibits the growth of human Ha-ras-transformed Rat1 cells, which correlates well with their inhibition for PPMTase. [1] Salirasib inhibits Ras methylation in Rat-1 fibroblasts, Ras-transformed Rat-1, and B16 melanoma cells. Salirasib also reduces the levels of Ras in cell membranes and inhibits Ras-dependent cell growth, independently of methylation, but via modulation of Ras-Raf communication. [2] In Ras-transformed EJ cells, Salirasib interferes with the activation of Raf-1 and MAPK and inhibits DNA synthesis. [3]
In vivo	In Panc-1 xenografted nude mice, Salirasib (5 mg/kg i.p.) markedly inhibits tumor growth without systemic toxicity. [4] In male Wistar rats, Salirasib (5 mg/kg i.p.) markedly inhibits thioacetamide-induced -induced liver cirrhosis. [5] In the dy(2J)/dy(2J) mouse model of congenital muscular dystrophy, Salirasib (5 mg/kg i.p.) attenuates fibrosis and improves muscle strength. [6]
Kinase Assay	PPMTase Assays：Synaptosomal membranes of rat brain cerebellum or total membranes of cultured cell lines (100,000 × g pellet) are used for methyltransferase assays in the cell-free systems. Methyltransferase assays are performed at 37°C in 50 mM Tris-HCl buffer, pH 7.4, using 100 μg of protein, 25 μM [methyl-3H]AdoMet (300,000 cpm/nmol), and 50 μM AFC (prepared as a stock solution in DMSO) in a total volume of 50 μL. DMSO concentration in all assays is 8%. Various AFC concentrations are used in several experiments as indicated in the text. Reactions are terminated after 10 min by addition of 500 μL of chloroform:methanol (1:1) with subsequent addition of 250 μL of Water, mixing, and phase separation. A 125-μL portion of the chloroform phase is dried at 40°C, and 200 μl of 1 N NaOH, 1% SDS solution is added. The methanol thus formed is counted by the vapor phase equilibrium method. Typical background counts (no AFC added) are 50-100 cpm, while typical reactions with AFC yield 500-6,000 cpm. Assays are performed in triplicate, and background counts are subtracted. Methylation of endogenous substrates and gel electrophoresis are performed. Protein carboxyl methylation in intact cells is determined using 100 μCi/mL [methyl-3H]methionine. Cells are assayed in near confluent cultures grown in 10-cm plates with 5 mL of labeling medium.

Cell Research	Cells are grown in 24-well plates. 2 h after plating, the cells receive either solvent or FTS freshly prepared from a stock solution to yield the final indicated concentrations in 0.1% DMSO. Media are replaced every 4 days with fresh medium containing the solvent or the drug. Separate experiments indicate that the solvent itself has no effect on cell growth. On the indicated days, the cells are detached from plates by trypsin/EDTA and counted under the light microscope. All assays are performed in quadruplicate. In parallel experiments, cells are stained either with trypan blue or with MTT, and the stained cells are examined under the light microscope. In some MTT-stained cultures, the cells are dissolved in 0.2 mL of 100% DMSO, and the extent of staining is determined spectrophotometrically using an enzyme-linked immunosorbent assay reader.(Only for Reference)

Solubility Information

Solubility	H2O: < 0.1 mg/mL (insoluble), DMSO: 18.33 mg/mL (51.12 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7891 mL	13.9454 mL	27.8909 mL
5 mM	0.5578 mL	2.7891 mL	5.5782 mL
10 mM	0.2789 mL	1.3945 mL	2.7891 mL
50 mM	0.0558 mL	0.2789 mL	0.5578 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

Marciano D, et al. J Med Chem. 1995, 38(8), 1267-1272.
Marom M, et al. J Biol Chem. 1995, 270(38), 22263-22270.
Gana-Weisz M, et al. Biochem Biophys Res Commun. 1997, 900-904.
Weisz B, et al. Oncogene. 1999, 18(16), 2579-2588.
Reif S, et al. J Hepatol. 1999, 31(6),, 1053-1061.