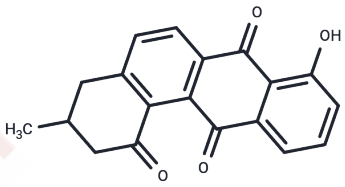
Data Sheet (Cat.No.T6995)

TargetMol

Ochromycinone

Chemical Properties



CAS No. : 111540-00-2

Formula: C19H14O4

Molecular Weight: 306.31

Appearance: no data available

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

Biological Description

Description	Ochromycinone (STA 21) is a selective STAT3 inhibitor.
Targets(IC50)	Antibacterial,STAT
In vitro	In cells, Ochromycinone inhibits Stat3 DNA binding activity, Stat3 dimerization, and Stat3-dependent luciferase activity. Ochromycinone remarkably inhibits the growth and the survival of the breast carcinoma cells MDA-MB-231, MDA-MB-435s, and MDA-MB-468 that express persistently activated Stat3. [1] In RH30 and RD2 cells, Ochromycinone also inhibits cell viability and growth and induced apoptosis through caspases 3, 8 and 9 pathways. [2]
In vivo	In IL-1Ra-KO mice, STA-21 (0.5 mg/kg, i.p.) reduces the arthritis score and the incidence of arthritis by decreasing the proportion of Th17 cells and increasing the proportion of Treg cells expressing FoxP3. [3]
Cell Research	Human breast cancer cell lines MDA-MB-231, MDA-MB-435s, MDA-MB-453, MDA-MB-468, and MCF7, human ovarian carcinoma cell line Caov-3, and human skin fibroblasts were cultured in DMEM containing 10% FBS and appropriate antibiotics in a 5% CO2 incubator at 37°C. For testing different compounds, the cells were exposed to the compounds for 48 h at a final concentration of 20 or 30 μM, respectively. Then, the cells were harvested and subjected to flow-cytometry analysis.(Only for Reference)

Solubility Information

Solubility	Ethanol: 2 mg/mL (6.53 mM),Sonication is recommended. DMSO: 20 mg/mL (65.29 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2647 mL	16.3233 mL	32.6467 mL
5 mM	0.6529 mL	3.2647 mL	6.5293 mL
10 mM	0.3265 mL	1.6323 mL	3.2647 mL
50 mM	0.0653 mL	0.3265 mL	0.6529 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

Song H, et al. Proc Natl Acad Sci U S A. 2005, 102(13), 4700-4705.
Ouyang P, Tao Y, Wei W, et al.Spring Viremia of Carp Virus Infection Induces Carp IL-10 Expression, Both In Vitro and In Vivo.Microorganisms.2023, 11(11): 2812.
Chen CL, et al. BMC Cancer. 2007, 7, 111.
Park JS, et al. Arthritis Rheumatol. 2014, 66(4), 918-929.