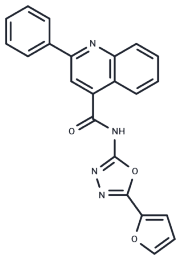
Data Sheet (Cat.No.T60160)

TargetMol

STX-0119

Chemical Properties



CAS No. : 851095-32-4

Formula: C22H14N4O3

Molecular Weight: 382.37

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	STX-0119 is a selective, orally active STAT3 dimerization inhibitor that suppresses STAT3 transcription with an IC50 of 74 μM.
Targets(IC50)	STAT
In vitro	STX-0119 (10-50 μM; 24 h) inhibits STAT3 dimerization through direct interaction with the STAT3 protein, without affecting upstream regulators like JAK, in HEK293 and MDA-MB-468 cells, and reduces the expression of STAT3 target proteins[1].
In vivo	STX-0119 (160 mg/kg; oral gavage; daily for 4 days) inhibits SCC-3 tumor growth in mice, with plasma concentrations maintained above 100 μg/mL (>260 μM) 8 hours post-administration[1].

Solubility Information

Solubility	DMSO: 120 mg/mL (313.83 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (26.15 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (26.15 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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	2.6153 mL	13.0763 mL	26.1527 mL
5 mM	0.5231 mL	2.6153 mL	5.2305 mL
10 mM	0.2615 mL	1.3076 mL	2.6153 mL
50 mM	0.0523 mL	0.2615 mL	0.5231 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

Matsuno K, et al. Identification of a New Series of STAT3 Inhibitors by Virtual Screening. ACS Med Chem Lett. 2010 Jul 13;1(8):371-5.

Guo Y, Zhu L, Duan Y, et al.Ruxolitinib induces apoptosis and pyroptosis of anaplastic thyroid cancer via the transcriptional inhibition of DRP1-mediated mitochondrial fission.Cell Death & Disease.2024, 15(2): 125.