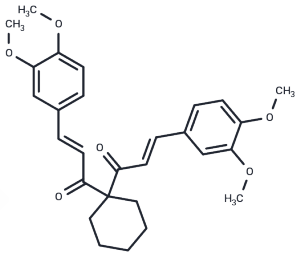
Data Sheet (Cat.No.T6838)

TargetMol

FLLL32

Chemical Properties



CAS No. : 1226895-15-3

Formula: C28H32O6

Molecular Weight: 464.55

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	FLLL32 is an effective JAK2/STAT3 inhibitor (IC50 of <5 μM).
Targets(IC50)	Apoptosis,STAT,JAK
In vitro	In MDA-MB-231 breast and PANC-1 pancreatic cancer cells, FLLL32 downregulates STAT3 phosphorylation and DNA-binding activity. In MDA-MB-231 cells, FLLL32 inhibit the formation of colonies and cell invasion. [1] In human multiple myeloma, glioblastoma, liver cancer, and colorectal cancer cell lines, FLLL32 also leads to the inhibition of cell proliferation and the induction of caspase-3 and PARP cleavages. [2]
In vivo	In MDA-MB-231 xenografted mice, FLLL32 (50 mg/kg, i.p.) significantly reduces tumor burdens. [1] In mouse xenografts with OS-33 osteosarcoma cells, FLLL32 (50 mg/kg, i.p.) also inhibits tumor growth by targeting STAT3. [3]
Kinase Assay	JAK2 and other human kinase activity assays: JAK2 kinase activity was assessed with the HTScan JAK2 Kinase Assay Kit per manufacturer's protocol. The possible effects of FLLL32 on the other 10 purified human protein kinases were determined by using a Kinase Profiler Assay.
Cell Research	Cells are seeded in 96-well plates (3,000 per well) in triplicate and then treated with 0.5 to 5 μM of FLLL31 or FLLL32 or with 0.5 to 30 μM of curcumin for 72 h. MTT (25 μL) is added to each sample and incubated for 3.5 h. Then, 100 μL of N,N-dimethylformamide solubilization solution are added to each well. The absorbance at 450 nm is read the following day. IC50 are determined using Sigma Plot 9.0 software.(Only for Reference)

Solubility Information

Solubility	DMSO: 250 mg/mL (538.16 mM),Sonication is recommended. Ethanol: 24 mg/mL (51.66 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 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 (21.53 mM),Suspension. 10% DMSO+90% Saline: < 10 mg/mL (21.53 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*

In vivo Formulation	*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	2.1526 mL	10.7631 mL	21.5262 mL
5 mM	0.4305 mL	2.1526 mL	4.3052 mL
10 mM	0.2153 mL	1.0763 mL	2.1526 mL
50 mM	0.0431 mL	0.2153 mL	0.4305 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

Lin L, et al. Cancer Res. 2010, 70(6), 2445-2454.
Lin L, et al. Mol Cancer. 2010, 9, 217.
Wattenberg LW, et al. Invest New Drugs. 2012, 30(3, 916-926.