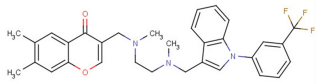
Data Sheet (Cat.No.T12985L)

TargetMol
A DRUG SCREENING EXPERT

SPD304

Chemical Properties



CAS No.:	869998-49-2
Formula:	C32H32F3N3O2
Molecular Weight:	547.61
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	SPD304 is a selective TNF-α inhibitor and blocks the interaction of TNF and its receptor. SPD304 has an IC50 of 22 μM for inhibiting in vitro TNF receptor 1 binding to TNF-α.
Targets(IC_{50})	TNFα: 22 μM
In vitro	SPD304 (2 μM) obviously rescues the survivability of aHSCs, reduces the production of lipid hydroxides, and increased intracellular GSH. The co-treatment of GA (75 μM) and SPD304 (2 μM), down-regulate TRADD almost 2-fold and p−RIP3 1.4−fold compared to GA alone and promotes caspase 8 activation [4].

Solubility Information

Solubility	DMSO: 25 mg/mL (45.65 mM) H2O: 20 mg/mL (36.52 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.826 mL	9.131 mL	18.261 mL
5 mM	0.365 mL	1.826 mL	3.652 mL
10 mM	0.183 mL	0.913 mL	1.826 mL
50 mM	0.037 mL	0.183 mL	0.365 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Molly M. He, et al. Small-Molecule Inhibition of TNF-α. Science 11 Nov 2005.
2. Alexiou P, et al. Rationally designed less toxic SPD-304 analogs and preliminary evaluation of their TNF inhibitory effects. Arch Pharm (Weinheim). 2014 Nov;347(11):798-805.
3. Mouhsine H, et al. Identification of an in vivo orally active dual-binding protein-protein interaction inhibitor targeting TNFα through combined in silico/in vitro/in vivo screening. Sci Rep. 2017 Jun 13;7(1):3424.
4. Gallic acid induces necroptosis via TNF-α signaling pathway in activated hepatic stellate cells. Chang YJ, et al. PLoS One. 2015 Mar 27;10(3):e0120713.

Inhibitors · Natural Compounds · Compound Libraries

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use.

Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481