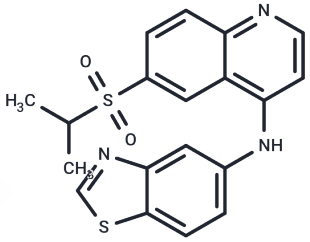
Data Sheet (Cat.No.T4074)

TargetMol

GSK-872

Chemical Properties



CAS No. : 1346546-69-7

Formula: C19H17N3O2S2

Molecular Weight: 383.49

Storage: Store at low temperature
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	GSK-872 (GSK2399872A) is an effective and specific RIP3 kinase inhibitor. It binds RIP3 kinase domain with high affinity (IC50: 1.8 nM) and inhibits kinase activity (IC50: 1.3 nM).
Targets(IC50)	RIP kinase
In vitro	GSK872 (1 μM) has no inhibition for most of 300 human protein kinases tested. It fails to inhibit RIP1 kinase. In HT-29 cells, GSK872 concentration-dependently blocks TNF-induced necroptosis. In cell-based assays, there is a 100- to 1000-fold shift in the IC50 compared to the cell-free biochemical assays. GSK872 inhibits DAI- or TLR3-induced (RIP1-independent) death. It induces caspase activation and then induces apoptotic cell death[1].
In vivo	In compared with no treatment after ischemic injury in vivo, GSK872 can significantly reduce HIF-1α expression [3].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 141 mg/mL (367.68 mM),Sonication is recommended. Ethanol: 38 mg/mL (99.09 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: 4 mg/mL (10.43 mM),Sonication is recommended. *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	2.6076 mL	13.0381 mL	26.0763 mL
5 mM	0.5215 mL	2.6076 mL	5.2153 mL
10 mM	0.2608 mL	1.3038 mL	2.6076 mL
50 mM	0.0522 mL	0.2608 mL	0.5215 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

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Hu G, Cui Z, Chen X, et al.Suppressing Mesenchymal Stromal Cell Ferroptosis Via Targeting a Metabolism-Epigenetics Axis Corrects their Poor Retention and Insufficient Healing Benefits in the Injured Liver Milieu.Advanced Science.2023: 2206439.
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