# Data Sheet (Cat.No.T4074L)

TargetMol

## GSK 872 hydrochloride

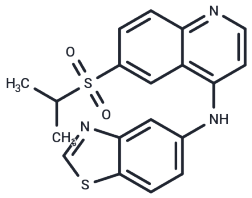
### Chemical Properties

CAS No. : 2703752-81-0

Formula: C19H18ClN3O2S2

Molecular Weight: 419.94

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 | GSK 872 hydrochloride 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

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|---|---|
| Solubility | DMSO: 100 mg/mL (238.13 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween-80+45% Saline: 1 mg/mL (2.38 mM),Sonication is recommended.<br>*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 | 2.3813 mL | 11.9065 mL | 23.8129 mL |
| 5 mM | 0.4763 mL | 2.3813 mL | 4.7626 mL |
| 10 mM | 0.2381 mL | 1.1906 mL | 2.3813 mL |
| 50 mM | 0.0476 mL | 0.2381 mL | 0.4763 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

Mandal P, et al. RIP3 induces apoptosis independent of pronecrotic kinase activity. Mol Cell. 2014, 56(4):481-95.
Kaiser WJ, et al. Toll-like receptor 3-mediated necrosis via TRIF, RIP3, and MLKL. J Biol Chem. 2013 Oct 25;288(43): 31268-79.
Yang XS, et al. Hypoxia-inducible factor-1 alpha is involved in RIP-induced necroptosis caused by in vitro and in vivo ischemic brain injury.Sci Rep. 2017 Jul 19;7(1):5818.