

## SK1-IN-1

## Chemical Properties

CAS No. : 1218816-71-7

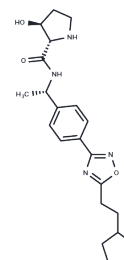
Formula: C<sub>22</sub>H<sub>30</sub>N<sub>4</sub>O<sub>3</sub>

Molecular Weight: 398.5

Store at low temperature

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	SK1-IN-1 is an orally available and potent spingosine kinase 1 (SPHK1) inhibitor (IC <sub>50</sub> : 58 nM), with potential anticancer activity, and can be used to study cancer and neurodegenerative diseases.
Targets(IC <sub>50</sub> )	S1P Receptor
In vitro	SK1-IN-1 can inhibit spingosine kinase 1 (SPHK1) with an IC <sub>50</sub> value of 58 nM.
In vivo	<b>b&gt;METHODS:</b> SK1-IN-1 (1 mg/kg, intravenous injection; 3 mg/kg, oral administration) was studied for its pharmacokinetic properties in rats. <b>RESULTS:</b> SK1-IN-1 showed moderate oral bioavailability and acceptable blood circulation half-life. The bioavailability of SK1-IN-1 in rats after oral administration was 17.6%, and the half-lives in rat blood circulation after intravenous injection and oral administration were 4.30 hours and 7.5 hours, respectively. [1]

## Solubility Information

Solubility	DMSO: 80 mg/mL (200.75 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: 3.3 mg/mL (8.28 mM),Sonication is recommended. <i>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.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.5094 mL	12.5471 mL	25.0941 mL
5 mM	0.5019 mL	2.5094 mL	5.0188 mL
10 mM	0.2509 mL	1.2547 mL	2.5094 mL
50 mM	0.0502 mL	0.2509 mL	0.5019 mL

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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

Xiang Y, et al. Discovery of novel sphingosine kinase-1 inhibitors. Part 2. Bioorg Med Chem Lett. 2010 Aug 1;20(15):4550-4.

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