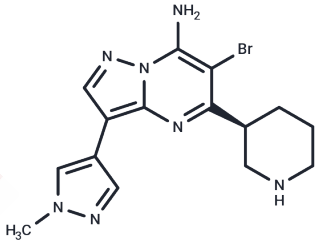
Data Sheet (Cat.No.T3700)

TargetMol

SCH900776 (S-isomer)

Chemical Properties



CAS No. : 891494-64-7

Formula: C15H18BrN7

Molecular Weight: 376.25

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	SCH900776 S-isomer (MK-8776 S-isomer) is an effective, specific and orally bioavailable inhibitor of checkpoint kinase Chk1 (IC50: 3 nM). It also inhibitors Chk2 (IC50: 1500 nM) and cyclin-dependent kinase CDK2 (IC50: 160 nM).
Targets(IC50)	Others,CDK,Chk
In vitro	SCH 900776 does not significantly inhibit HLMs CYP450 isoforms 1A2, 2C9, 2C19, 2D6, and 3A4. SCH 900776 induces a dose-dependent loss of DNA replication capability 24 hours after hydroxyurea exposure. In combination with an antimetabolite, SCH 900776 induces accumulation of γ-H2AX within 2 hours, indicative of replication fork collapse and double-stranded DNA breaks. SCH 900776 also dose-dependently suppresses accumulation of the Chk1 pS296 autophosphorylation.
In vivo	After pretreatment 30 minutes with gemcitabine, SCH 900776 (4 mg/kg) is sufficient to induce the γ-H2AX biomarker while 8 mg/kg leads to enhanced tumor pharmacodynamic and regression responses relative to gemcitabine or SCH 900776 alone. SCH 900776 (16/32 mg/kg) dose-dependently induces improvements in tumor response. Doses of SCH 900776 associate with robust biomarker activation and improved tumor response are not associated with enhanced toxicity of gemcitabine on hematological parameters in BALB/c mice.

Solubility Information

Solubility	DMSO: 100 mg/mL (265.78 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 (10.63 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	2.6578 mL	13.289 mL	26.5781 mL
5 mM	0.5316 mL	2.6578 mL	5.3156 mL
10 mM	0.2658 mL	1.3289 mL	2.6578 mL
50 mM	0.0532 mL	0.2658 mL	0.5316 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

Guzi TJ, et al. Mol Y Ther, 2011, 10(4), 591-602.
Montano R, et al. Mol Y Ther. 2012 Feb;11(2):427-38.
Thompson R, et al. PLoS One. 2012;7(8):e44021.