

ASK1-IN-2

Chemical Properties

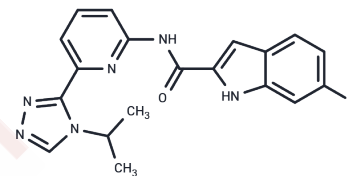
CAS No. : 2541792-70-3

Formula: C19H17FN6O

Molecular Weight: 364.38

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	ASK1-IN-2 is a potent, orally active inhibitor of apoptosis signal-regulating kinase 1 (ASK1), with an IC50 of 32.8 nM. It has potential therapeutic applications for ulcerative colitis[1].
Targets(IC50)	Apoptosis,ASK,MAPK
In vitro	ASK1-IN-2 displays potent anti-ASK1 kinase activity and strong inhibitory effect on ASK1 in AP1-HEK293 cells with inhibition rate of 95.59%[1].
In vivo	ASK1-IN-2 (1 mg/kg; i.v.) shows low clearance (CL=1.38 L/h/kg) and moderate half-life (T1/2=1.45 h) in rats[1]. ASK1-IN-2 (10 mg/kg; p.o.) shows high oral exposure (AUClast=4517 h?ng/mL), 62.2% oral bioavailability and acceptable terminal half-life (T1/2=2.31 h) in rats[1]. ASK1-IN-2 (25 mg/kg; p.o. daily for 7 d) improves dextran sulphate sodium (DSS)-induced ulcerative colitis (UC) in mice[1]. ASK1-IN-2 (25 mg/kg; p.o. daily for 7 d) blocks ASK1-p38/JNK signaling pathways and reduces inflammatory cytokine levels in DSS-induced mouse colon tissues[1].

Solubility Information

Solubility	DMSO: 249 mg/mL (683.35 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: 5 mg/mL (13.72 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

	1mg	5mg	10mg
1 mM	2.7444 mL	13.7219 mL	27.4439 mL
5 mM	0.5489 mL	2.7444 mL	5.4888 mL
10 mM	0.2744 mL	1.3722 mL	2.7444 mL
50 mM	0.0549 mL	0.2744 mL	0.5489 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

Hou S, et, al. Structure-based discovery of 1H-indole-2-carboxamide derivatives as potent ASK1 inhibitors for potential treatment of ulcerative colitis. Eur J Med Chem. 2020 Dec 24;211:113114.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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