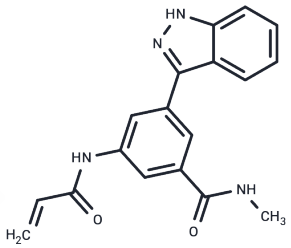
Data Sheet (Cat.No.T60857)

TargetMol

MKK7-COV-9

Chemical Properties



CAS No. : 2283355-59-7

Formula: C18H16N4O2

Molecular Weight: 320.35

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	MKK7-COV-9 is a selective and potent covalent inhibitor of MKK7 with inhibitory effects on MKK7-induced protein-protein interactions.MKK7-COV-9 interrupts the activation of primary B-cells in response to LPS.MKK7-COV-9 shows low cytotoxicity at high concentrations.
Targets(IC50)	Others,p38 MAPK
In vitro	Due to poor permeability, the piperidine analogs MKK7-COV-10 and MKK7-COV-11, as well as the carboxylic acid MKK7-COV-8, prove to be inactive in ICW in 3T3 cells. In contrast, the amide counterpart, MKK7-COV-9, retains activity (EC50=4.06 μM) and provides a new vector for further derivatization[1]. MKK7-COV-9 (10 μM; 48 hours) shows a limited cytotoxic effect only at the highest tested concentration. Only one cell line, HCT116, displayed a half-maximal lethal dose (LD50) 10 μM for these two compounds[1].With a 2-hour pre-incubation at 10 μM, MKK7-COV-9 is able to inhibit 60% of the CD86+ response to LPS stimulation in primary mouse B cells, except the negative control MKK7-NEG-1[1].JNK is known to mediate the activation of B cells in response to lipopolysaccharide through the TLR4 signaling pathway.MKK7-COV-9 (0-10 μM; 2 hr pre-incubation) is able to mediate the activation of B cells in response to LPS through the TLR4 signaling pathway. It shows a dose-response curve for the inhibition of LPS-induced activation and exhibits an EC50 value of 4.98 μM (EC50=4.98 μM for MKK7-COV-12; EC50>10 μM for MKK7-COV-7; EC50=2.23 μM for JNK-IN-8)[1].

Solubility Information

Solubility	DMSO: 10 mg/mL (31.22 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: 1 mg/mL (3.12 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	3.1216 mL	15.6079 mL	31.2159 mL
5 mM	0.6243 mL	3.1216 mL	6.2432 mL
10 mM	0.3122 mL	1.5608 mL	3.1216 mL
50 mM	0.0624 mL	0.3122 mL	0.6243 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

Amit Shraga, et al. Covalent Docking Identifies a Potent and Selective MKK7 Inhibitor. Cell Chem Biol. 2019 Jan 17; 26(1):98-108.e5.