

KP-457

Chemical Properties

CAS No. : 1365803-52-6

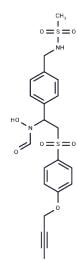
Formula: C21H24N2O7S2

Molecular Weight: 480.56

Appearance: Solid

Storage: store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	KP-457 is a specific inhibitor of a disintegrin-metalloproteinase 17 (ADAM17) and a TNF α converting enzyme TACE inhibitor that blocks the production of soluble TNF (sTNF).
Targets(IC50)	MMP
In vitro	<p>METHODS: The ability of KP-457 (15 μM) to inhibit GPIα shedding during in vitro generation of iPSC platelets was studied when administered during the MK differentiation and thrombopoietic stages of HPC cultured at 37°C.</p> <p>RESULTS: KP-457 had no significant effect on MK numbers; retention of GPIα by KP-457 was consistently observed in platelets derived from human embryonic stem cells and imMKCLs. [1]</p> <p>KP-457 is a selective metalloproteinase 17 (ADAM17) inhibitor, with selectivity for ADAM17 over other MMPs and ADAM10, with IC50 values of 0.011 μM (ADAM17), 0.748 μM (ADAM10), 0.717 μM (MMP2), 9.760 μM (MMP3), 2.2 μM (MMP8), 5.41 μM (MMP9), 0.93 μM (MMP13), 2.140 μM (MMP14), and 7.1 μM (MMP17), respectively. [1]</p>

Solubility Information

Solubility	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (8.32 mM), Sonication is recommended. DMSO: 100 mg/mL (208.09 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0809 mL	10.4045 mL	20.8091 mL
5 mM	0.4162 mL	2.0809 mL	4.1618 mL
10 mM	0.2081 mL	1.0405 mL	2.0809 mL
50 mM	0.0416 mL	0.2081 mL	0.4162 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.

Reference

Hirata S, et al. Selective Inhibition of ADAM17 Efficiently Mediates Glycoprotein Iba Retention During Ex Vivo Generation of Human Induced Pluripotent Stem Cell-Derived Platelets. *Stem Cells Transl Med.* 2017 Mar;6(3):720-730.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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