

NLRP3-IN-45

Chemical Properties

CAS No. :

Formula: C27H30FNO6

Molecular Weight: 483.53

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	NLRP3-IN-45 (D6) serves as an inhibitor specifically targeting the NLRP3 inflammasome, demonstrated through its ability to curb the activity of IL-1 β (IC 50 = 41.79 nM). It effectively prevents the activation of the NLRP3 inflammasome while sparing the initial stages of its activation process. Furthermore, NLRP3-IN-45 has been shown to selectively inhibit NLRP3 inflammasome activation in the LPS-induced acute lung injury (ALI) mouse model.
Targets(IC50)	NOD-like Receptor (NLR)
In vitro	NLRP3-IN-45 (0.2-5 μ M, 1 h) inhibits the activation of NLRP3 inflammasomes in BMDMs cells without affecting the activation of AIM2 and NLRC4 inflammasomes. Additionally, NLRP3-IN-45 does not interfere with the priming stage of NLRP3 inflammasome activation.
In vivo	Administered once daily at doses ranging from 0.1 to 10 mg/kg for three days, NLRP3-IN-45 significantly inhibits the activation of the NLRP3 inflammasome in a mouse model of acute lung injury, thereby offering a protective effect against the condition.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0681 mL	10.3406 mL	20.6812 mL
5 mM	0.4136 mL	2.0681 mL	4.1362 mL
10 mM	0.2068 mL	1.0341 mL	2.0681 mL
50 mM	0.0414 mL	0.2068 mL	0.4136 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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