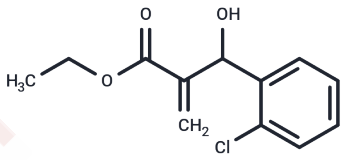
Data Sheet (Cat.No.T28178)

TargetMol

NLRP3-IN-9

Chemical Properties



CAS No. : 88039-46-7

Formula: C12H13ClO3

Molecular Weight: 240.68

Storage: Pure form: -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-9 (INF-4E) is an inhibitor of NLRP3 ATPase and caspase-1. NLRP3-IN-9 acts by irreversibly trapping thiol nucleophiles, which prevents both ATP- and nigericin-triggered pyroptosis of human THP-1 cells in a time- and concentration-dependent manner.
Targets(IC50)	NOD-like Receptor (NLR),NOD

Solubility Information

Solubility	DMSO: 60 mg/mL (249.29 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: 2 mg/mL (8.31 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	4.1549 mL	20.7745 mL	41.5489 mL
5 mM	0.831 mL	4.1549 mL	8.3098 mL
10 mM	0.4155 mL	2.0774 mL	4.1549 mL
50 mM	0.0831 mL	0.4155 mL	0.831 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

Cocco M, Garella D, Di Stilo A, Borretto E, Stevanato L, Giorgis M, Marini E, Fantozzi R, Miglio G, Bertinaria M. Electrophilic warhead-based design of compounds preventing NLRP3 inflammasome-dependent pyroptosis. J Med Chem. 2014 Dec 26;57(24):10366-82. doi: 10.1021/jm501072b. Epub 2014 Dec 4. PubMed PMID: 25418070.
Hu Q, Chen Y, Zhang W, et al.Dehydroevodiamine targeting IKKβ to alleviate acute gastric injury via inhibiting the p65/NLRP3 axis.Phytomedicine.2024: 155963.