

CL075

Chemical Properties

CAS No. : 256922-53-9

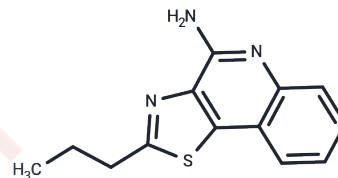
Formula: C₁₃H₁₃N₃S

Molecular Weight: 243.33

Store at low temperature

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	CL075 (3M002) is a selective TLR8 agonist with immunomodulatory activity, triggering the MyD88-dependent signaling pathway and activating NF-κB and IRF7 to elicit the production of inflammatory cytokines and type I interferon (IFN).
Targets(IC50)	NF-κB, MyD88, TLR
In vitro	CL075 (2 μM) induces the production of IL-6, IL-8, and IFN-γ in rabbit splenocytes within 4 hours, stimulates total IgM production and cell proliferation in rabbit splenocytes within 48 hours, and activates rabTLR8 in 293 cells within 7 hours.[1]
In vivo	CL075 (5 μM; s.c.) activates mild antigen-specific antibody responses in rabbits.[1]

Solubility Information

Solubility	DMSO: 19.8 mg/mL (81.37 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1096 mL	20.5482 mL	41.0965 mL
5 mM	0.8219 mL	4.1096 mL	8.2193 mL
10 mM	0.411 mL	2.0548 mL	4.1096 mL
50 mM	0.0822 mL	0.411 mL	0.8219 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

Lai CY, et al. TLR7/8 agonists activate a mild immune response in rabbits through TLR8 but not TLR7. *Vaccine*. 2014;32(43):5593-5599.

Spranger S, et al. Generation of Th1-polarizing dendritic cells using the TLR7/8 agonist CL075. *J Immunol*. 2010;185(1):738-747.

Makni-Maalej K, et al. TLR8, but not TLR7, induces the priming of the NADPH oxidase activation in human neutrophils. *J Leukoc Biol*. 2015;97(6):1081-1087.

Yang H, et al. Expression of TLR8 in human cervical cancer HeLa cells and the effect of TLR8 agonist on the cell proliferation and apoptosis. *Zhonghua Zhong Liu Za Zhi*. 2011;33(9):643-648.

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