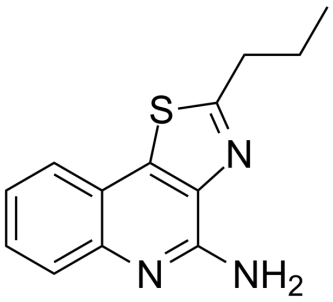
CL075

Cat. No.:	HY-117066
CAS No.:	256922-53-9
Molecular Formula:	$C_{13}H_{13}N_3S$
Molecular Weight:	243.33
Target:	Toll-like Receptor (TLR)
Pathway:	Immunology/Inflammation
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 22 mg/mL (90.41 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.1096 mL	20.5482 mL	41.0965 mL
	5 mM	0.8219 mL	4.1096 mL	8.2193 mL
	10 mM	0.4110 mL	2.0548 mL	4.1096 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

CL075 (3M002) is a selective TLR8 agonist with immunomodulating properties. CL075 triggers a MyD88-dependent signaling pathway to elicit production of inflammatory cytokines and type I interferons (IFNs) via activation of NF-κB and IRF7, respectively[1][2][3].

IC_{50} & Target

TLR8

In Vitro

CL075 (2 μM; 4 h) induces the production of IL-6, IL-8, and IFN-γ in rabbit splenocytes[1].
CL075 (2 μM; 48 h) induces the total IgM production and cell proliferation in rabbit splenocytes[1].
CL075 (2 μM; 7 h) activates the rabTLR8 in 293 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

CL075 (5 μM (0.5 mL); s.c.) activates a mild antigen-specific antibody response in rabbits[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Burns. 2023 Jun 16.

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REFERENCES

[1]. Lai CY, et, al. TLR7/8 agonists activate a mild immune response in rabbits through TLR8 but not TLR7. Vaccine. 2014 Sep 29;32(43):5593-9.

[2]. Spranger S, et, al. Generation of Th1-polarizing dendritic cells using the TLR7/8 agonist CL075. J Immunol. 2010 Jul 1;185(1):738-47.

[3]. Maalej KM, et, al. TLR8, but not TLR7, induces the priming of the NADPH oxidase activation in human neutrophils. J Leukoc Biol. 2015 Jun;97(6):1081-7.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA