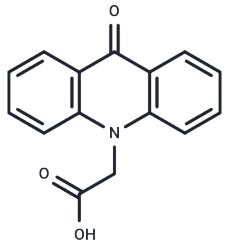
Data Sheet (Cat.No.T5317)

TargetMol

Cridanimod

Chemical Properties



CAS No. : 38609-97-1

Formula: C15H11NO3

Molecular Weight: 253.25

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	Cridanimod (10-carboxymethyl-9-acridanone, CMA) is a potent STING agonist that directly binds to STING and triggers a strong antiviral response through the TBK1/IRF3 route.
Targets(IC50)	IFNAR,Progesterone Receptor,STING
In vitro	CMA induced robust IRF3 phosphorylation that was followed by strong Ifnb mRNA induction and translation. CMA-mediated IFNβ production reached peak levels already 4?h after stimulation, even exceeding LPS in its readiness to trigger IFNβ synthesis [1]. rSTING and hSTING do not respond or only respond weakly to CMA, whereas it strongly activated mSTING. Endogenous mRNA level of Ifnb, Cxcl10, and Il6 were robustly increased when treated with CMA in murine macrophages, but not in rat macrophages and human THP-1 cells [2].
Cell Research	For transfection experiments, primary macrophages were seeded with a density of 1 × 10^5?per?ml. Cells were transfected with poly(I:C) (2?μg/ml), pppRNA (1.33?μg/ml), ISD (2?μg/ml) and c-diGMP (8.66?μg/ml) using Lipofectamine 2000, according to the manufacturer's instructions. LPS (200?ng/ml) and CMA were directly added to the medium. Human PBMCs were transfected as described above, at a density of 4 × 10^6?per?ml, human fibroblasts at a density of 1.5 × 105?per?ml. For western blot experiments, cells were lysed after 2?h, if not indicated otherwise. For cytokine assays, supernatants were collected after 18–20?h. For RNA isolation, cells were lysed after 4?h [1].

Solubility Information

Solubility	DMSO: 28.57 mg/mL (112.81 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (9.87 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	3.9487 mL	19.7433 mL	39.4867 mL
5 mM	0.7897 mL	3.9487 mL	7.8973 mL
10 mM	0.3949 mL	1.9743 mL	3.9487 mL
50 mM	0.079 mL	0.3949 mL	0.7897 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

Cavlar T, et al. Species-specific detection of the antiviral small-molecule compound CMA by STING. EMBO J. 2013 May 15;32(10):1440-50.

Zhang H, et al. Rat and human STINGs profile similarly towards anticancer/antiviral compounds. Sci Rep. 2015 Dec 16;5:18035.