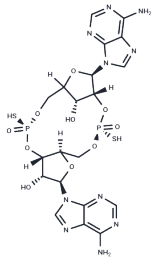
Data Sheet (Cat.No.T10252L3)

TargetMol

ADU-S100

Chemical Properties



CAS No. : 1638241-89-0

Formula: C20H24N10O10P2S2

Molecular Weight: 690.54

Storage: Keep away from direct sunlight,Store at low temperature
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	ADU-S100 (MIW815) is a cyclic dinucleotide (CDN) class STING agonist that significantly induces the production of IFN-β and pro-inflammatory cytokines TNF-α, IL-6, and MCP-1, induces TBK1 and IRF3 phosphorylation, and exhibits antitumour activity.
Targets(IC50)	Others,COX,IL Receptor,IκB/IKK,STING,TNF
In vitro	**Methods**: DCs were treated with ADU-S100 (3.125, 6.25, 12.5, 25, 50, 100, 200 ng/mL) and activated to validate the activity of ADU-S100 and optimize the ideal dose for further assays. **Results**: The expression of co-stimulatory molecules CD40, CD86, and MHC II increased in a dose-dependent manner, indicating successful DC maturation. [4]
In vivo	**Methods**: SNI male and female mice were treated with ADU-S100 (35 nmol, intrathecal injection), and the expression of IFN-I and induced NF-κB genes in the dorsal horn tissue of mice treated with PBS or ADU-S100 after SNI was analyzed. **Results**: Transcripts of the proinflammatory cytokines IL-1β, TNFα, and CCL2 showed significant increases only in female mice treated with ADU-S100. [3]

Solubility Information

Solubility	H2O: 16 mg/mL (23.17 mM),Sonication is recommended. DMSO: 1 mg/mL (1.45 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4481 mL	7.2407 mL	14.4814 mL
5 mM	0.2896 mL	1.4481 mL	2.8963 mL
10 mM	0.1448 mL	0.7241 mL	1.4481 mL
50 mM	0.029 mL	0.1448 mL	0.2896 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

Corrales L, et al. Direct Activation of STING in the Tumor Microenvironment Leads to Potent and Systemic Tumor Regression and Immunity. Cell Rep. 2015 May 19;11(7):1018-30.
Berger G, et al. STING activation promotes robust immune response and NK cell-mediated tumor regression in glioblastoma models. Proc Natl Acad Sci U S A. 2022 Jul 12;119(28):e2111003119.
Silveira Prudente A, et al. Microglial STING activation alleviates nerve injury-induced neuropathic pain in male but not female mice. Brain Behav Immun. 2024 Mar;117:51-65.