

STING Agonist 1a

Chemical Properties

CAS No. :	652142-94-4
Formula:	C ₁₉ H ₁₁ Cl ₂ N ₅ O
Molecular Weight:	396.23
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	STING Agonist 1a is a specific STING agonist with interferon-inducing activity, offering potential applications in antiviral and antitumor research.
Targets(IC50)	Others,STING
In vitro	<p>Methods: Human myeloid leukemia monocytes (THP-1) were used as experimental cells. Cells were treated with 0-100 μM STING Agonist 1a for 6 hours, and the mRNA expression of inflammation- and interferon-related genes was detected, along with an assessment of cytotoxicity. Additionally, cells were treated with 50 μM STING Agonist 1a for 2 hours, and the phosphorylation levels of STING, TBK1, and IRF3 proteins were detected; Compound activation activity was determined via SEAP assays, and EC₅₀ values were compared with those of 2'3'-cGAMP.</p> <p>Results: STING Agonist 1a dose-dependently upregulated the mRNA expression of IFNβ, CXCL-10, and IL-6 in THP1 cells within the 0-100 μM range, with no significant cytotoxicity observed at a concentration of 100 μM [1]. Treatment of THP1 cells with 50 μM STING Agonist 1a for 2 h significantly promoted the phosphorylation and activation of STING, TBK1, and IRF3. SEAP activity assays showed that STING Agonist 1a activated SEAP in a dose-dependent manner, with an EC₅₀ of 16.77 μM; the positive control 2'3'-cGAMP had an EC₅₀ of 9.212 μM [1].</p>

Solubility Information

Solubility	PBS (pH 7.2): Slightly soluble DMF: Slightly soluble DMSO: 4 mg/mL (10.1 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5238 mL	12.6189 mL	25.2379 mL
5 mM	0.5048 mL	2.5238 mL	5.0476 mL
10 mM	0.2524 mL	1.2619 mL	2.5238 mL
50 mM	0.0505 mL	0.2524 mL	0.5048 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

Hui Hou, et al. Discovery of triazoloquinoline as novel STING agonists via structure-based virtual screening. Bioorg Chem. 2020 Jul;100:103958.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481