

## STING Agonist 1a

## Chemical Properties

CAS No. :	652142-94-4
Formula:	C <sub>19</sub> H <sub>11</sub> Cl <sub>2</sub> N <sub>5</sub> 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 EC<sub>50</sub> 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 EC<sub>50</sub> of 16.77 μM; the positive control 2'3'-cGAMP had an EC<sub>50</sub> 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

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	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

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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.

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