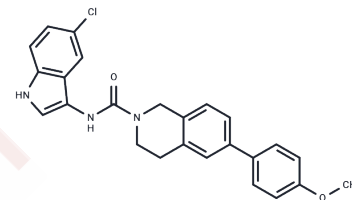


STING-IN-16

Chemical Properties

CAS No. : 2982807-58-7
 Formula: C₂₅H₂₂ClN₃O₂
 Molecular Weight: 431.91
 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	STING-IN-16 is an inhibitor of STING, with an IC ₅₀ value of 44 nM in humans and 32 nM in mice. This compound effectively suppresses the activation of the STING pathway in both human and mouse cells. STING-IN-16 aids in restoring kidney mitochondrial function, inhibits the production of reactive oxygen species (ROS), and reduces apoptosis. It exhibits significant anti-inflammatory effects in vivo and is a valuable tool for researching autoimmune and autoinflammatory diseases.
Targets(IC ₅₀)	Apoptosis,IFNAR,Interleukin,ROS,STING
In vitro	STING-IN-16 (Compound 5c) at a concentration of 1 μM for 24 hours inhibits the activation of STING, with an IC ₅₀ of 44 nM in THP1-Blue-ISG cells and 32 nM in RAW-Lucia-ISG cells. At concentrations ranging from 0.3 to 3 μM over 3 to 6 hours, it suppresses STING agonist-induced signaling activation in THP1 cells, bone marrow-derived macrophages (BMDM), mouse embryonic fibroblasts (MEF), and mouse macrophages (RAW264.7), while also significantly enhancing the thermal stability of STING. Additionally, at 1 μM for 6 hours, STING-IN-16 inhibits the activation of the cGAS-STING pathway triggered by cisplatin-induced DNA damage in HK2 cells, thereby reducing ROS accumulation and apoptosis.
In vivo	STING-IN-16 (Compound 5c) administered intraperitoneally at 10 mg/kg once daily for three days alleviates cisplatin-induced inflammation in mice. Additionally, a single intraperitoneal dose of STING-IN-16 (10 mg/kg) demonstrates anti-inflammatory properties in a mouse model induced by MSA-2.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3153 mL	11.5765 mL	23.153 mL
5 mM	0.4631 mL	2.3153 mL	4.6306 mL
10 mM	0.2315 mL	1.1576 mL	2.3153 mL
50 mM	0.0463 mL	0.2315 mL	0.4631 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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