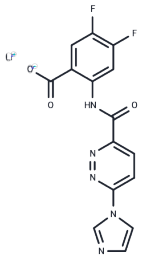
Data Sheet (Cat.No.T8655)

TargetMol

SR-717

Chemical Properties



CAS No. : 2375421-09-1

Formula: C15H8F2LiN5O3

Molecular Weight: 351.19

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	SR-717 is a cGAMP analog, a non-nucleoside STING agonist that induces a "closed" activation conformation of STING. SR-717 has antitumor activity and promotes activation of immune cells and cross-presentation of antigens.
Targets(IC50)	STING
In vitro	**METHODS**: Macrophage THP1 were treated with SR-717 (3.6 μM) for 10 min-6 h. The expression levels of target proteins were detected using Western Blot. **RESULTS**: SR-717 activates p-STING, and its downstream p-TBK1, p-IRF3, p-p65, p-STAT1 and p-STAT3. [1] **METHODS**: Primary human peripheral blood mononuclear cell PBMCs were treated with SR-717 (10 μM) for 2-6 h. Gene expression levels were detected using RT-qPCR. **RESULTS**: SR-717 stimulated the activation of IFNB1, CXCL10 and IL6. [1]
In vivo	**METHODS**: To test the antitumor activity in vivo, SR-717 (30 mg/kg) was injected intraperitoneally into WT or Stinggt/gt C57BL/6 mice bearing mouse cutaneous melanoma tumor B16.F10 once daily for seven days. **RESULTS**: SR-717 inhibited tumor growth as well as prolonged the survival time of mice with rhabdomyosarcoma. The antitumor effect of SR-717 showed an enforced dependence on STING expression, and a lack of activity was observed in Stinggt/gt mice. [1] **METHODS**: To assay antitumor activity in vivo, SR-717 (10 mg/kg) was administered intravenously three times every two days to C57BL/6 mice harboring mouse cutaneous melanin tumor B16.F10. **RESULTS**: SR-717 has anti-tumor activity in vivo and prolongs survival. [2]

Solubility Information

Solubility	DMSO: 20 mg/mL (56.95 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2.5 mg/mL (7.12 mM),Suspension. *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	2.8475 mL	14.2373 mL	28.4746 mL
5 mM	0.5695 mL	2.8475 mL	5.6949 mL
10 mM	0.2847 mL	1.4237 mL	2.8475 mL
50 mM	0.0569 mL	0.2847 mL	0.5695 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

Chin EN, et al. Antitumor activity of a systemic STING-activating non-nucleotide cGAMP mimetic. Science. 2020 Aug 21;369(6506):993-999.

Li L, et al. Cholesterol removal improves performance of a model biomimetic system to co-deliver a photothermal agent and a STING agonist for cancer immunotherapy. Nat Commun. 2023 Aug 22;14(1):5111.