SR-717

Cat. No.: HY-131454

CAS No.: 2375421-09-1

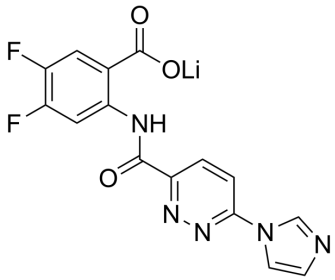
Molecular Formula: $C_{15}H_8F_2LiN_5O_3$

Molecular Weight: 351.19

Target: STING

Pathway: Immunology/Inflammation

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 2 years; -20°C, 1 year (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20.83 mg/mL (59.31 mM; Need ultrasonic)
Methanol : 3.33 mg/mL (9.48 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
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

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 50% PEG300 >> 50% saline
   Solubility: 10 mg/mL (28.47 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.08 mg/mL (5.92 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.92 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SR-717 is a non-nucleotide STING agonist with EC_{50}s of 2.1 μM and 2.2 μM in ISG-THP1 (WT) and ISG-THP1 cGAS KO (cGAS KO) cell lines, respectively. SR-717 is a stable cyclic guanosine monophosphate-adenosine monophosphate (cGAMP) mimetic. Antitumor activity[1].

In Vitro

SR-717 activates STING by inducing the same closed conformation, which thereby provides an avenue to explore this class of systemic STING agonist in diverse contexts, including antitumor immunity[1].
SR-717 (3.8 μM) induces the expression of PD-L1 in THP1 cells and in primary human peripheral blood mononuclear cells in a STING-dependent manner[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	SR-717 (30 mg/kg intraperitoneal once-per-day for 1 week) shows antitumor activities in WT or Sting$^{gt/gt}$ mice[1]. SR-717 (30 mg/kg intraperitoneally for 7 days) displays antitumor activity; promots the activation of CD8$^+$ T, natural killer, and dendritic cells in relevant tissues; and facilitates antigen cross-priming[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	WT or Sting$^{gt/gt}$ mice[1]
Dosage:	30 mg/kg
Administration:	Intraperitoneally; once-per-day for 1 week
Result:	Maximally inhibited tumor growth.

CUSTOMER VALIDATION

- Nat Commun. 2023 Aug 22;14(1):5111.
- Cell Death Differ. 2023 Nov 25.
- Sci Total Environ. 2023 Sep 22;167315.
- Clin Sci. 2023 Feb 23;CS20220728.
- Int J Pharm. 2023 Sep 22;123430.

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REFERENCES

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

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