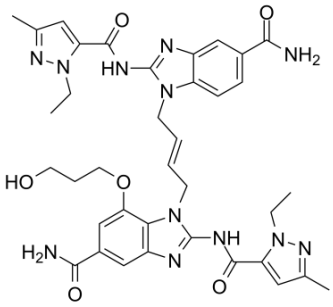
STING agonist-3

Cat. No.:	HY-103665
CAS No.:	2138299-29-1
Molecular Formula:	$C_{37}H_{42}N_{12}O_6$
Molecular Weight:	750.81
Target:	STING
Pathway:	Immunology/Inflammation
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 41.67 mg/mL (55.50 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.3319 mL	6.6595 mL	13.3189 mL
	5 mM	0.2664 mL	1.3319 mL	2.6638 mL
	10 mM	0.1332 mL	0.6659 mL	1.3319 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (2.77 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (2.77 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (2.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

STING agonist-3, extracted from patent WO2017175147A1 (example 10), is a selective and non-nucleotide small-molecule STING agonist with a pEC_{50} and pIC_{50} of 7.5 and 9.5, respectively. STING agonist-3 has durable anti-tumor effect and tremendous potential to improve treatment of cancer[1].

In Vitro

STING agonist-3 exhibits a pEC_{50} value of 7.5 in activation of STING in cells, this assay is determined using a luciferase reporter assay in human embryonic kidney cells (HEK293T) co-transfected with plasmids expressing STING and the enzyme firefly luciferase driven by the interferon stimulated response element promoter[1].

STING agonist-3 exhibits a pIC_{50} value of 9.5 in FRET assay. This is a competition binding assay which aims to determine the binding potency of molecules to the C-terminal Domain (CTD) of human STING[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Signal Transduct Target Ther. 2021 Mar 15;6(1):123.
- Clin Transl Med. 2020;10:e228.

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REFERENCES

[1]. Adam Kenneth, et al. Heterocyclic amides useful as protein modulators.patent WO2017175147A1

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