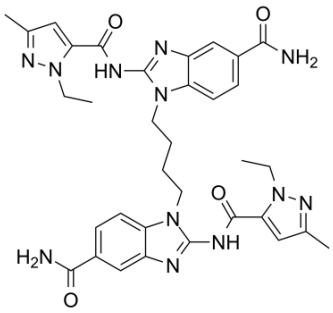
STING agonist-4

Cat. No.:	HY-123943
CAS No.:	2138300-40-8
Molecular Formula:	$C_{34}H_{38}N_{12}O_4$
Molecular Weight:	678.74
Target:	STING
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	STING agonist-4 is an stimulator of Interferon Genes (STING) receptor agonist with an apparent inhibitory constant (**IC_{50}**) of 20 nM. STING agonist-4 is a two symmetry-related amidobenzimidazole (**ABZI**)-based compound to create linked ABZIs (diABZIs) with enhanced binding to STING and cellular function[1].
IC_{50} & Target	IC50: 20 nM (STING agonist-4)[1]
In Vitro	STING agonist-4 (Compound 2) (0.3-30 μM; 2 hours) causes phosphorylation of IRF3 and STING that is inhibited by the TBK1 inhibitor BX795 and induces dose-dependent secretion of IFN-β with an EC_{50} of 3.1 μM[1]. STING agonist-4 (Compound 2) (0.001 nM-1 μM) inhibits binding of full-length STING to the solid support with an apparent dissociation constant (K_d) of approximately 1.6 nM[1]. STING agonist-4 (Compound 2) (0-100 μM) is 18-fold more potent than cGAMP (an endogenous STING ligand), with an EC_{50} of 53.9 μM[1]. STING agonist-4 (Compound 2) (3 μM; 4 hours) promotes production of interferon γ-induced protein 10 (IP-10), IL-6 and TNF-α by a mechanism that is dependent on STING-mediated activation of TBK1[1]. **Cell Viability Assay[1]**

Cell Line:	Human peripheral blood mononuclear cells (PBMCs)
Concentration:	0.3 μM, 1 μM, 3 μM, 10 μM and 30 μM
Incubation Time:	2 hours
Result:	Caused phosphorylation of IRF3 and STING and induced secretion of IFN-β.

REFERENCES

[1]. Ramanjulu JM et al. Design of amidobenzimidazole STING receptor agonists with systemic activity. Nature. 2018 Dec;564(7736):439-443.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA