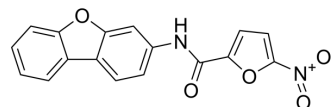


C-178

Cat. No.:	HY-123963		
CAS No.:	329198-87-0		
Molecular Formula:	C ₁₇ H ₁₀ N ₂ O ₅		
Molecular Weight:	322.27		
Target:	STING		
Pathway:	Immunology/Inflammation		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 41.67 mg/mL (129.30 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.1030 mL	15.5149 mL	31.0299 mL
	5 mM	0.6206 mL	3.1030 mL	6.2060 mL
	10 mM	0.3103 mL	1.5515 mL	3.1030 mL

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

BIOLOGICAL ACTIVITY

Description

C-178 is a potent and selective covalent inhibitor of STING. C-178 binds to Cys91 and suppresses the STING responses elicited by distinct bona fide activators in mouse but not human^[1].

IC₅₀ & Target

STING^[1]

In Vitro

C-178 targets the poorly characterized N-terminal portion of mmSTING that includes the transmembrane domains. Moreover, C-178 interferes with this process by inhibiting the palmitoylation of STING. C-178 does not appreciably affect STING responses in human cells^[1].

C-178 (0-1 μM; 1 hour) alone does not appreciably affect the gene expression profile of BMDMs. In addition, it inhibits the CMA-induced phosphorylation of TBK1^[1].

C-178 (1 μM; 1 hour) decreases cdG, dsDNA, CMA and LPS-induced Ifnb1 expression in mouse bone marrow-derived macrophages^[1].

C-178 (1 μM; 0.5-4 hours) inhibits the CMA-induced p-TBK1 and sting protein expression as a time-dependent manner in mouse embryonic fibroblasts^[1].

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

Western Blot Analysis^[1]

Cell Line:	Mouse bone marrow-derived macrophages (BMDMs)
Concentration:	0 μ M; 0.125 μ M; 0.25 μ M; 0.5 μ M; 1 μ M
Incubation Time:	1 hour
Result:	Inhibited CMA-induced p-TBK1 expression as a dose dependent manner.

RT-PCR^[1]

Cell Line:	Mouse bone marrow-derived macrophages (BMDMs)
Concentration:	1 μ M
Incubation Time:	1 hour
Result:	Downregulated Ifnb1 expression in BMDMs.

CUSTOMER VALIDATION

- Nat Commun. 2023 May 23;14(1):2950.
- Pharmacol Res. 2023 Sep 25;106939.
- Dev Comp Immunol. 2022 Oct 10;104567.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Haag SM, et al. Targeting STING with covalent small-molecule inhibitors. Nature. 2018 Jul;559(7713):269-273.

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

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