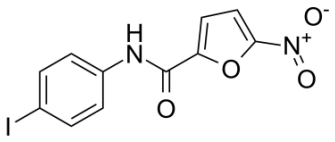
C-176

Cat. No.:	HY-112906
CAS No.:	314054-00-7
Molecular Formula:	$C_{11}H_7IN_2O_4$
Molecular Weight:	358.09
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 : 125 mg/mL (349.07 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7926 mL	13.9630 mL	27.9259 mL
	5 mM	0.5585 mL	2.7926 mL	5.5852 mL
	10 mM	0.2793 mL	1.3963 mL	2.7926 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: ≥ 2.5 mg/mL (6.98 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.98 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

C-176 is a strong and covalent mouse STING inhibitor[1].

IC_{50} & Target

STING[1].

In Vitro

C-176 strongly reduces STING-mediated, but not RIG-I- or TBK1-mediated, IFNβ reporter activity. Pretreatment with C-176 markedly reduce the CMA-mediated induction of serum levels of type I IFNs and IL-6[1].

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

In Vivo

C-176 (750/375 nmol C-176 per mouse in 200 μL corn oil) significantly reduces the CMA-mediated induction of serum levels of type I IFNs and IL-6., without significant toxicity[1].

C-176 results in a significant reduction in serum levels of type I IFNs and in a strong suppression of inflammatory parameters in the heart, with no evident signs of overt toxicity Trex1$^{-/-}$ mice[1].

C-176 demonstrates marked amelioration of various signs of systemic inflammation in Trex1$^{-/-}$ mice[1].

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

Animal Model:	WT type mice.
Dosage:	750/375 nmol C-176 per mouse in 200 μL corn oil (~1.34/0.67 mg/mL).
Administration:	Intraperitoneally, once.
Result:	Significantly reduced Serum levels of type I IFNs and IL-6.

CUSTOMER VALIDATION

- Adv Sci (Weinh). 2021 Jan 6;8(5):2002738.
- Cancer Res. 2021 Feb 15;canres.2370.2020.
- Aging Cell. 2020 Aug;19(8):e13186.
- J Exp Clin Cancer Res. 2019 Aug 22;38(1):370.
- J Neuroinflammation. 2020 May 25;17(1):165.

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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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