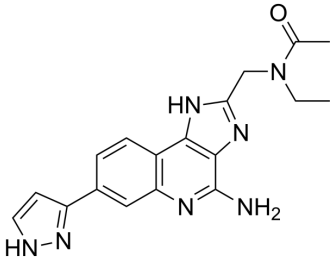
BMS-986299

Cat. No.:	HY-139396
CAS No.:	2242952-69-6
Molecular Formula:	$C_{18}H_{19}N_7O$
Molecular Weight:	349.39
Target:	NOD-like Receptor (NLR)
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 : 33.33 mg/mL (95.39 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8621 mL	14.3107 mL	28.6213 mL
	5 mM	0.5724 mL	2.8621 mL	5.7243 mL
	10 mM	0.2862 mL	1.4311 mL	2.8621 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 (7.16 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.16 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BMS-986299 (compound 112) is a first-in-class NLRP3 inflammasome agonist with an EC_{50} of 1.28 μM. (patent WO2018152396A1).

IC_{50} & Target

NLRP3
1.28 μM (EC50)

In Vitro

BMS 986299 (1-1000 μM) shows low toxicity of cells PNRCMs[2].

BMS 986299 (1 μM, 1 h) upregulates the NLRP3 expression, stimulates the NLRP3 mediated cardiomyocyte pyroptosis in PNRCMs and therefore aggravates the DCM[2].

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

Western Blot Analysis[2]

Cell Line:	PNRCMs
Concentration:	1 μM
Incubation Time:	1 h
Result:	Promoted NLRP3 expression.

Immunofluorescence[2]

Cell Line:	PNRCMs
Concentration:	1 μM
Incubation Time:	1 h
Result:	Revealed a higher number of PI stained positive cells.

CUSTOMER VALIDATION

- Front Pharmacol. 2022 Jul 5;13:906548.
- Neuropharmacology. 2023 Aug 12;239:109687.

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REFERENCES

[1]. Gao G, et al., Cyclovirobuxine D Ameliorates Experimental Diabetic Cardiomyopathy by Inhibiting Cardiomyocyte Pyroptosis via NLRP3 in vivo and in vitro. Front Pharmacol. 2022 Jul 5;13:906548.

[2]. Gary Glick, et al. Substituted imidazo-quinolines as nlrp3 modulators. WO2018152396A1.

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