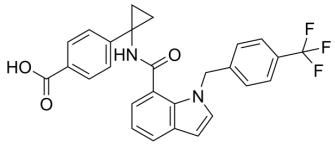
MF-766

Cat. No.:	HY-115487
CAS No.:	1050656-06-8
Molecular Formula:	$C_{27}H_{21}F_3N_2O_3$
Molecular Weight:	478.46
Target:	Prostaglandin Receptor
Pathway:	GPCR/G Protein
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 : 50 mg/mL (104.50 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0900 mL	10.4502 mL	20.9004 mL
	5 mM	0.4180 mL	2.0900 mL	4.1801 mL
	10 mM	0.2090 mL	1.0450 mL	2.0900 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.23 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MF-766 is a highly potent, selective and orally active EP4 antagonist with a K_i of 0.23 nM. MF-766 behaves as a full antagonist with an IC_{50} of 1.4 nM (shifted to 1.8 nM in the presence of 10% HS) in the functional assay. MF-766 can be used for cancer and inflammation diseases research[1][2].

IC_{50} & Target

EP4
0.23 nM (Ki)

In Vitro

MF-766 (0.01-10 μM; pretreatment for 1 h and then stimulated with 50 ng/mL IL-2; with and without 0.33 μM PGE2; 18 hours) reverses PGE2-suppressed IFN-γ secretion in human NK cells. Additionally, NK cell viability is not affected by MF-766[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

MF-766 (oral gavage; 30 mg/kg; once daily; 21 days) exhibits TGI% of 49% in CT26 tumor model. But it does not exhibits

significant difference in EMT6 and 4T1 tumor model[2].
MF-766 (oral gavage; 30 mg/kg combination with anti-PD-1 mDX400; once daily; 21 days; q4dx8) shows potent anti-tumor activities in different preclinical models. The % of TGI are 89%, 66% and 40%, respectively in CT26 tumor, EMT6 and 4T1 tumor model[2].

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

Animal Model:	Female C57BL/6 J strain mice injected subcutaneously with CT26, EMT6, or 4T1 cells[2]
Dosage:	30 mg/kg combination with anti-PD-1 mDX400
Administration:	Oral gavage; 10 mg/kg or 30 mg/kg combination with anti-PD-1 mDX400; once daily; 21 days; q4dx8
Result:	Improved anti-tumor activity in the setting of PD-1 blockade in multiple syngeneic models.

REFERENCES

[1]. John Colucci, et al. Discovery of 4-[1-[([1-[4-(trifluoromethyl)benzyl]-1H-indol-7-yl]carbonyl)amino]cyclopropyl]benzoic acid (MF-766), a highly potent and selective EP4 antagonist for treating inflammatory pain. Bioorg Med Chem Lett

[2]. Yun Wang, et al. Combination of EP 4 antagonist MF-766 and anti-PD-1 promotes anti-tumor efficacy by modulating both

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