Fevipiprant

Cat. No.: HY-16768

CAS No.: 872365-14-5

Molecular Formula: $C_{19}H_{17}F_3N_2O_4S$

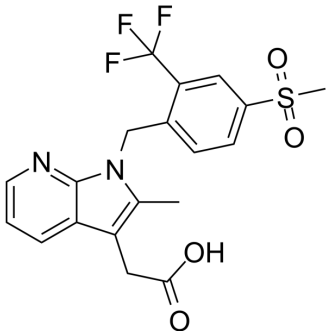
Molecular Weight: 426.41

Target: Prostaglandin Receptor

Pathway: GPCR/G Protein

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 : ≥ 32 mg/mL (75.05 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3452 mL	11.7258 mL	23.4516 mL
5 mM	0.4690 mL	2.3452 mL	4.6903 mL
10 mM	0.2345 mL	1.1726 mL	2.3452 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 (5.86 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.86 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.86 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fevipiprant (QAW039, NVP-QAW039) is s an orally active, selective, reversible prostaglandin D2 (DP2) receptor antagonist with an K_d value of 1.14 nM. Fevipiprant has the potential for the research of bronchial asthma[1][2][3].

IC_{50} & Target

DP2

1.14 nM (Kd)

In Vitro	Fevipiprant (0-10 μM) inhibits the gene expression of IL-4, IL-3, IL-5, IL-8, CSF1, CSF2 in n in human Th2 cells induced by activated mast cell supernatants[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Fevipiprant (10 mg/kg; in the drinking water) reduces CaCl2-induced AAA (abdominal aortic aneurysm) formation in mouse [3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57Bl/6 mice[3]
Dosage:	10 mg/kg
Administration:	In the drinking water
Result:	Efficiently reduced CaCl2-induced AAA formation with diminished elastin degradation, aortic macrophage infiltration, MPO accumulation and MCP-1 expression.

CUSTOMER VALIDATION

- Int J Mol Sci. 2018 Oct 5;19(10). pii: E3036.

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REFERENCES

[1]. Brightling C, et al. The pharmacology of the prostaglandin D2 receptor 2 (DP2) receptor antagonist, fevipiprant. Pulm Pharmacol Ther. 2021 Jun;68:102030.

[2]. Lee HY, et al. Blockade of thymic stromal lymphopoietin and CRTH2 attenuates airway inflammation in a murine model of allergic asthma. Korean J Intern Med. 2020 May;35(3):619-629.

[3]. Weintraub NL, et al. Role of prostaglandin D2 receptors in the pathogenesis of abdominal aortic aneurysm formation. Clin Sci (Lond). 2022 Mar 18;136(5):309-321.

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