MCOPPB trihydrochloride

Cat. No.: HY-13101

CAS No.: 1108147-88-1

Molecular Formula: $C_{26}H_{43}Cl_3N_4$

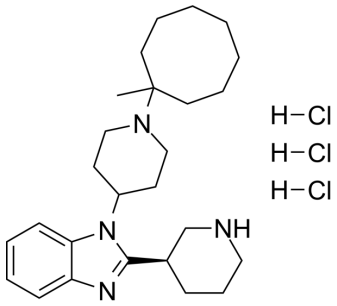
Molecular Weight: 518.01

Target: Opioid Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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 : 100 mg/mL (193.05 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9305 mL	9.6523 mL	19.3046 mL
	5 mM	0.3861 mL	1.9305 mL	3.8609 mL
	10 mM	0.1930 mL	0.9652 mL	1.9305 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 (4.83 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.83 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.83 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MCOPPB trihydrochloride is a nociceptin receptor agonist with pKi of 10.07; weaker activity at other opioid receptors.IC50 value: 10.07 (pKi)Target: nociceptin receptorMCOPPB trihydrochloride is a trihydrochloride form of MCOPPB that is a new nonpeptide nociceptin/orphanin FQ peptide (NOP)-receptor agonist with a pKi of 10.07 ± 0.01 for the human NOP receptor.

REFERENCES

[1]. Hayashi, Shigeo; Hirao, Akiko; Imai, Aki; Nakamura, Hiroshi; Murata, Yoshinori; Ohashi, Katsuyo; Nakata, Eriko. Novel Non-Peptide Nociceptin/Orphanin FQ Receptor Agonist, 1-[1-(1-Methylcyclooctyl)-4-piperidinyl]-2-[(3R)-3-piperidinyl]-1H-benzimidazole: Design, Synthesis, and Structure-Activity Relationship of Oral Receptor Occupancy in the Brain for Orally Potent Antianxiety Drug. Journal of Medicinal Chemistry (2009), 52(3), 610-625.

[2]. Hayashi S, Hirao A, Imai A, Nakamura H, Murata Y, Ohashi K, Nakata E.Novel non-peptide nociceptin/orphanin FQ receptor agonist, 1-[1-(1-Methylcyclooctyl)-4-piperidinyl]-2-[(3R)-3-piperidinyl]-1H-benzimidazole: design, synthesis, and structure-activity relationship of oral receptor occupancy in the brain for orally potent antianxiety drug.J Med Chem. 2009 Feb 12;52(3):610-25.

[3]. Hirao A, Imai A, Sugie Y, Yamada Y, Hayashi S, Toide K.Pharmacological characterization of the newly synthesized nociceptin/orphanin FQ-receptor agonist 1-[1-(1-methylcyclooctyl)-4-piperidinyl]-2-[(3R)-3-piperidinyl]-1H-benzimidazole as an anxiolytic agent.J Pharmacol Sci. 2008 Mar;106(3):361-8. Epub 2008 Mar 5.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA