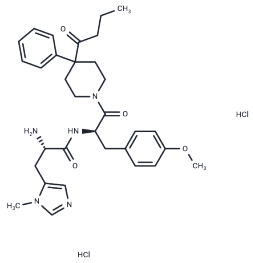
Data Sheet (Cat.No.T10568)

TargetMol

BMS-470539 dihydrochloride

Chemical Properties



CAS No. : 2341796-82-3

Formula: C32H43Cl2N5O4

Molecular Weight: 632.62

Storage: Store at low temperature,Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	BMS-470539 dihydrochloride is a selective and highly potent melanocortin 1 receptor (MC-1 R) agonist with anti-inflammatory activity. BMS-470539 attenuates oxidative stress and neuronal apoptosis via the MC1R/cAMP/PKA/Nurr1 signaling pathway in a neonatal hypoxia-ischemia rat model.
Targets(IC50)	Melanocortin Receptor
In vitro	**METHODS**: BMS-470539 dihydrochloride (0-1μM, 15 minutes) was used to treat HBL cells stably transfected with NF-B luciferase reporter gene, and then treated with 0.5 ng/mL TNF-α for 4 hours to study its effect on stable transfection. Effects of NF-B luciferase reporter gene on TNF-α-stimulated luciferase activation in HBL cells. **RESULTS**:BMS-470539 dihydrochloride treatment of HBL cells with NF-B luciferase reporter gene caused a dose-dependent significant reduction in TNF-α-stimulated NF-B luciferase activity. [2]
In vivo	**METHODS**: BMS-470539 dihydrochloride (2.05-18.47 mg/kg, intravenous injection, 125 minutes) was used to treat WT and MC1 receptor-negative e/e mice to study its effects on mesenteric microcirculation. **RESULTS**:BMS-470539 dihydrochloride treatment of mice inhibited cell adhesion and migration, had no effect on cell rolling, and also inhibited the tissue expression of two chemokines, CXCL1 and CCL2. [3]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5807 mL	7.9036 mL	15.8073 mL
5 mM	0.3161 mL	1.5807 mL	3.1615 mL
10 mM	0.1581 mL	0.7904 mL	1.5807 mL
50 mM	0.0316 mL	0.1581 mL	0.3161 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Herpin TF, et al. Discovery of tyrosine-based potent and selective melanocortin-1 receptor small-molecule agonists with anti-inflammatory properties. J Med Chem. 2003 Mar 27;46(7):1123-6.

Kang L, et al. A selective small molecule agonist of the melanocortin-1 receptor inhibits lipopolysaccharide-induced cytokine accumulation and leukocyte infiltration in mice. J Leukoc Biol. 2006 Oct;80(4):897-904. Epub 2006 Aug 3.

Leoni G, et al. The melanocortin MC(1) receptor agonist BMS-470539 inhibits leucocyte trafficking in the inflamed vasculature. Br J Pharmacol. 2010 May;160(1):171-80.