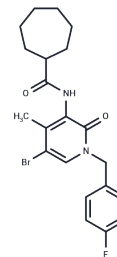


CB2R PAM

Chemical Properties

CAS No. :	2244579-87-9
Formula:	C ₂₁ H ₂₄ BrFN ₂ O ₂
Molecular Weight:	435.33
Storage:	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	CB2R PAM is an orally active cannabinoid type 2 receptor (CB2Rs) positive allosteric modulator that enhances CP 55940 and 2-Arachidonylglycerol-stimulated [³⁵ S]GTPγS binding to CB2 receptors without affecting receptor activity in the absence of agonists. CB2R PAM shows anti-injury activity in a mouse model of neuropathic pain.
Targets(IC50)	Cannabinoid Receptor
In vitro	CB2R Positive Allosteric Modulator (PAM) at a concentration of 100 nM notably enhances the capability of CP55940 and 2-AG, without affecting AEA, in promoting [³⁵ S]GTPγS binding to CB2 receptors.[1]
In vivo	CB2R PAM (1-20 mg/kg; p.o.) exhibits antinociceptive activity. [1]

Solubility Information

Solubility	DMSO: 35.7 mg/mL (82.01 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 3.57 mg/mL (8.2 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn Oil: 2 mg/mL (4.59 mM), Sonication is recommended. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.57 mg/mL (8.2 mM), Suspension. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2971 mL	11.4855 mL	22.9711 mL
5 mM	0.4594 mL	2.2971 mL	4.5942 mL
10 mM	0.2297 mL	1.1486 mL	2.2971 mL
50 mM	0.0459 mL	0.2297 mL	0.4594 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

Gado F, et al. Identification of the First Synthetic Allosteric Modulator of the CB2 Receptors and Evidence of Its Efficacy for Neuropathic Pain Relief. *J Med Chem.* 2019;62(1):276-287.

Yuan J, et al. In Silico Prediction and Validation of CB2 Allosteric Binding Sites to Aid the Design of Allosteric Modulators. *Molecules.* 2022;27(2):453.

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