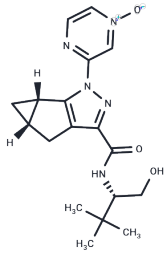
Data Sheet (Cat.No.T14302)

TargetMol

Olorinab

Chemical Properties



CAS No. : 1268881-20-4

Formula: C18H23N5O3

Molecular Weight: 357.41

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	Olorinab (APD 371) (APD 371) is a highly potent, selective and fully efficacious cannabinoid receptor type 2 (CB2) agonist. With an EC50 of 6.2 nM for hCB2.
Targets(IC50)	Cannabinoid Receptor
In vitro	A comprehensive in vitro profile of Olorinab (APD 371) (6) demonstrates single-digit nanomolar potency and full intrinsic efficacy across all species assessed. It is highly selective for CB2 over CB1 in both binding and functional assays and induces efficient receptor internalization (~106% relative to the CB1/2 agonist CP55,940) in CHO cells expressing HA-tagged rat CB2, suggesting it can drive agonist-induced receptor recycling[1].
In vivo	Olorinab (APD 371) significantly increases paw withdrawal thresholds at doses ≥3 mg/kg PO (ED50=2.3 mg/kg), with its analgesic effects likely mediated via activity at CB2 receptors[1]. A single dose of Olorinab (APD 371) (10 mg/kg, PO) inhibits paw withdrawal threshold for up to 4 hours after administration.

Solubility Information

Solubility	DMSO: 150 mg/mL (419.69 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (13.99 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7979 mL	13.9895 mL	27.9791 mL
5 mM	0.5596 mL	2.7979 mL	5.5958 mL
10 mM	0.2798 mL	1.399 mL	2.7979 mL
50 mM	0.056 mL	0.2798 mL	0.5596 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

Han S, et al. Discovery of APD371: Identification of a Highly Potent and Selective CB2 Agonist for the Treatment of Chronic Pain. ACS Med Chem Lett. 2017 Nov 30;8(12):1309-1313.