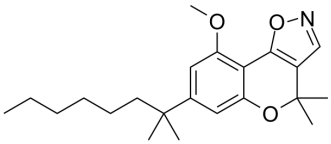
PM226

Cat. No.:	HY-136238
CAS No.:	1949726-13-9
Molecular Formula:	$C_{22}H_{31}NO_3$
Molecular Weight:	357.49
Target:	Cannabinoid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	PM226 is a selective cannabinoid CB2R agonist (K_i (CB2R)=13 nM; EC_{50} (CB2R)=39 nM; K_i (CB1R) >40 μM;) with neuroprotective properties in vitro and vivo[1].

IC_{50} & Target	CB2 13 nM (Ki)	CB2 39 nM (EC50)

In Vitro	PM226 binds selectively to CB2 receptor with an affinity in the nanomolar range (K_i=12.8±2.4 nM). PM226 has negligible affinity for the CB1 receptor (K_i >40000 nM) and no activity at the GPR55. PM226 was also evaluated in GTPγS binding assays specific to the CB2 receptor showing agonist activity (EC_{50}=38.67±6.70 nM)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	PM226 (0.1, 1 and 10 mg/kg; administered i.p.) administration decreases the volume of the striatal lesion caused by Malonate[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Malonate-lesioned adult (12 week old; 350-400 g) male Wistar rats[2]
Dosage:	0.1, 1 and 10 mg/kg
Administration:	Administered i.p.
Result:	Reduced the volume of edema observed in Malonate-lesioned rats at the dose of 1 mg/kg.

REFERENCES

[1]. Gemma Navarro, et al. Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders. Front Neurosci. 2016 Sep 13;10:406.

[2]. M Gómez-Cañas, et al. Biological characterization of PM226, a chromenoisoxazole, as a selective CB2 receptor agonist with neuroprotective profile. Pharmacol Res. 2016 Aug;110:205-215.

Caution: Product has not been fully validated for medical applications. For research use only.

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