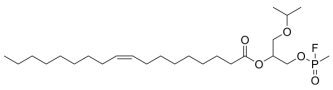
O-7460

Cat. No.:	HY-120851
CAS No.:	1572051-31-0
Molecular Formula:	$C_{25}H_{48}FO_5P$
Molecular Weight:	478.62
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	O-7460 is a potent and selective DAGLα inhibitor, with an IC_{50} of 0.69 μM. O-7460 shows selectivity over onoacylglycerol lipase (MAGL), human CB1 and CB2 cannabinoid receptors. O-7460 can decrease HFD-caused an up-regulation of 2-AG levels [1].
IC_{50} & Target	IC50: 0.69 μM (DAGLα)[1]
In Vitro	O-7460 (10 μM; 20 min) decreases the Ionomycin (3 μM)-induced formation of 2-AG in N18TG2 cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	O-7460 (6-12 mg/kg; a single i.p.) induces a time- and dose-dependent decrease in high-fat diet (HFD) intake and counteracts the body weight increase of mice[1]. O-7460 (12 mg/kg; i.p.) decreases the HFD-caused an up-regulation of 2-AG levels in the hypothalamus and liver of mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Seven-week-old male C57BL/6N inbred mice were administrated high-fat diet (HFD) diet[1]
Dosage:	6, 12 mg/kg
Administration:	A single i.p.
Result:	Induced a time (30 min, 60 min and 14 h after O-7460 administration) and dose-dependent decrease in HFD intake. The highest dose significantly counteracted the body weight increase.

REFERENCES

[1]. Bisogno T, et, al. A novel fluorophosphonate inhibitor of the biosynthesis of the endocannabinoid 2-arachidonoylglycerol with potential anti-obesity effects. Br J Pharmacol. 2013 Jun;169(4):784-93.

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

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