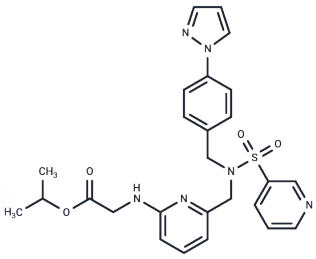
Data Sheet (Cat.No.T16388)

TargetMol

Omidenepag isopropyl

Chemical Properties



CAS No. : 1187451-19-9

Formula: C26H28N6O4S

Molecular Weight: 520.6

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	Omidenepag isopropyl (DE-117) is a selective prostaglandin EP2 receptor agonist and a novel topical ocular blood pressure lowering compound.Omidenepag isopropyl has a weak affinity for EP1, EP2, and FP receptors.Omidenepag isopropyl is used in studies of glaucoma and hypertension. Omidenepag isopropyl can be used to study glaucoma and hypertension.
Targets(IC50)	Prostaglandin Receptor
In vitro	**METHODS**: All binding studies were performed on prostaglandin receptors DP1, EP1-4, FP, and IP at OMDI (0.1, 0.3, 1, 3, and 10 μM) in all assays, calculated using the Cheng-Prusoff equation. **RESULTS**: OMDI binds weakly to the EP1 receptor with Ki = 1700 nM, to the EP2 receptor with Ki > 4600 nM, and to the FP receptor with Ki > 4500 nM. [2]
In vivo	**METHODS**: The effects of Omidenepag isopropyl on intraocular pressure and aqueous humor dynamics were evaluated in cynomolgus monkeys with unilateral laser-induced intraocular hypertension. In a crossover fashion, the hypertensive eye of each monkey was dosed once daily with 20 μL of 0.002% Omidenepag isopropyl or vehicle. On day 7 of dosing, IOP was measured by pneumometry, aqueous humor flow and outflow facilities were assessed by fluorophotometry, and uveoscleral outflow was calculated mathematically. Treatments were compared by paired t test. **RESULTS**: Omidenepag isopropyl significantly reduced intraocular pressure by 27%, 35% and 44% at 0.5, 1.5 and 4 hours after the last administration; Omidenepag isopropyl treatment group and uveoscleral outflow significantly increased by 71% and 176% respectively. (P<0.05). [1]

Solubility Information

Solubility	DMSO: 40 mg/mL (76.83 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9209 mL	9.6043 mL	19.2086 mL
5 mM	0.3842 mL	1.9209 mL	3.8417 mL
10 mM	0.1921 mL	0.9604 mL	1.9209 mL
50 mM	0.0384 mL	0.1921 mL	0.3842 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

Fuwa M, et al. Effects of a Novel Selective EP2 Receptor Agonist, Omidenepag Isopropyl, on Aqueous Humor Dynamics in Laser-Induced Ocular Hypertensive Monkeys. J Ocul Pharmacol Ther. 2018 Sep;34(7):531-537.
Kirihara T, et al. Pharmacologic Characterization of Omidenepag Isopropyl, a Novel Selective EP2 Receptor Agonist, as an Ocular Hypotensive Agent. Invest Ophthalmol Vis Sci. 2018 Jan 1;59(1):145-153.