Ozanimod

Catalog No.C13080 Batch:C1308003

Product Datasheet

Technical Data

Formula	$C_{23}H_{24}N_4O_3$					
Molecular Weight	404.46	**CAS No.**	1306760-87-1			
Solubility (25°C)*	In vitro	DMSO	81 mg/mL (200.26 mM)			
		Ethanol	10 mg/mL (24.72 mM)			
		Water	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Biological Activity

Description	Ozanimod is a selective oral **S1P Receptor 1** modulator. Phase 3.
Targets	S1P1R [1] (Cell-free assay): 0.41 nM(EC50) S1P5R [1] (Cell-free assay): 11 nM(EC50)
In vitro	In S1P1R-HEK293T cells, Ozanimod induces sustained S1P1R internalization and degradation. [1]
In vivo	In vivo, Ozanimod shows high oral bioavailability and volume of distribution. In a MOG-induced EAE mouse model, this compound (3 mg/kg, p.o.) suppresses clinical symptoms. In a rat TNBS model of inflammatory bowel disease, it (1.2 mg/kg, p.o.) inhibits clinical and histological disease scores. In a Naïve CD4+CD45Rbhi T cell adoptive transfer model, this chemical (1.2 mg/kg, p.o.) also significantly reduced disease severity as assessed by measuring the degree of inflammation, gland loss, hyperplasia, neutrophil infiltrate and mucosal thickness. [1]

Protocol (from reference)

Kinase Assay:[1]

- **In vitro pharmacology assays**

  Cell signaling assays used the LiveBLAzer-FRET B/G assay to detect cAMP (S1P1R) or β-arrestin signaling (S1P4R). Assays are performed in 384-well plates in triplicate according to manufacturer directions. Compound stocks are stored at 10 mM in 100% DMSO at -80°C, and initially diluted 1:10 with 20% (2-hydoxypropyl)-β-cyclodextrin. A 10-point dose response curve is generated at 40-times the final assay concentration in 10 mM Hepes pH 7.4, containing 0.1% Pluronic F-127. For the S1P1R assay, 80 μM forskolin is included in the diluent. Briefly, 10^4 cells/well are incubated with a dose response of ligand at 37°C for 4 hrs. CC4-AM substrate and probenecid are added and incubated at 37°C for a further 2 hrs and analyzed with a SpectramaxM5. For S1P1R cAMP assays, data is normalized to the maximum fluorescence generated by 2 μM forskolin. For GTPγS binding assays, 1-5μg/well of membrane protein is incubated with 10 μM GDP, 100-500 μg/well Wheat Germ Agglutinin PVT SPA beads in 50 mM HEPES, 100 mM NaCl, 10 mM $MgCl_2$, 20 μg/ml saponin and 0.1% fatty acid free BSA for 15 minutes in 96-well plates. After the addition of compound and 200 pM GTP [35S] 1250Ci/mmol), the plates are incubated for 120 minutes and centrifuged at 300g for 5 minutes. Radioactivity is detected with a TopCount Instrument. All data is fit with a four parameter variable slope non-linear regression (GraphPad Prism) to generate half-maximal effective concentration (EC50) and maximum efficacy relative to S1P.

Cell Assay:[1]

- **Cell lines**

  HEK293T cells
- **Concentrations**

  1 μM
- **Incubation Time**

  1 h
- **Method**

  Cells expressing S1P1 receptors were incubated with vehicle control or 1 μM this compound for 1 h.

Animal Study:[1]

- **Animal Models**

  MOG-induced EAE model in C57Bl6 mice, TNBS model of inflammatory bowel disease in male Sprague Dawley rats, and Naïve CD4+CD45Rbhi T cell adoptive transfer model in SCID mice
- **Dosages**

  0.1-3 mg/kg
- **Administration**

  p.o.

References

https://pubmed.ncbi.nlm.nih.gov/26990079/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

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EU Headquarters
Gajeva ulica 28, HR-10000 Zagreb, Croatia

US Headquarters
12222 Merit Dr STE 130 Dallas, Texas, 75251

UK Headquarters
121 ABILITY HOUSE, BROOKER ROAD, EN9 1JH, ESSEX

Orders: Sales@capsidbio.com
Enquiries: info@capsidbio.com
www.capsidbio.com