

Product Datasheet

Ponesimod (orb1223849)

Catalog Number	orb1223849
Category	Small Molecules
Description	<p>A potent, selective, orally active S1P1 receptor agonist with EC50 of 9.1 nM; shows weak activity on S1P3 (EC50=123 nM); activates S1P1-mediated signal transduction with high potency (EC50 of 5.7 nM); causes maximal reduction of circulating lymphocytes at a dose of 3 mg/kg. Multiple Sclerosis Phase 3 Clinical (In Vitro): Ponesimod activates human S1P1-5 receptors with EC50s of 5.7, >10000, 105, 1108 and 59.1 nM respectively in GTPγS binding assay. Ponesimod activates S1P1 receptors with EC50s of 5.7, 1.9, and 1.4 nM for human, rat, and mouse S1P receptors respectively. (In Vivo): Ponesimod (30 and 175 mg/kg; once daily p.o. for 8 d) prevents delayed-type hypersensitivity in mice. Ponesimod (30 mg/kg by gavage 3 h before and 6 h after adjuvant injection followed by 100 mg/kg/day by administration as food admix for 18 days) prevents adjuvant-induced arthritis in rats. Ponesimod (0.3-100 mg/kg; a single oral gavage) causes a dose-dependent reduction in lymphocyte count, with a plateau effect being reached at 3 mg/kg in rats. Ponesimod (100 mg/kg; once daily oral gavage for 7 d) results in a lymphocyte count reduction to 1900 lymphocytes/μL, and this effect is maintained over the entire 7 days studies. Lymphocyte count returned to baseline levels within 48 h after discontinuation of dosing.</p>
Target	Lysophospholipid Receptor
Purity	>98% (HPLC)
MW	460.9736
Target Areas	S1P1
Solubility (25°C)	10 mM in DMSO
CAS Number	854107-55-4
Formula	$C_{23}H_{25}ClN_2O_4S$

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SMILES	<chem>O=C1N(C2=CC=CC=C2C)/C(S/C1=C\C3=CC=C(OC[C@H](O)CO)C(Cl)=C3)=N/CC</chem> C
Chemical Name	4-Thiazolidinone, 5-[[3-chloro-4-[(2R)-2,3-dihydroxypropoxy]phenyl]methylene]-3-(2-methylphenyl)-2-(propylimino)-, (2Z,5Z)-
Storage	Storage temperature: -20°C. Stability: ≥ 2 years
Note	For research use only
Expiration Date	12 months from date of receipt.

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