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产品名称：Etrasimod
产品别名： APD334

生物活性：

Description	Etrasimod (APD334) is a potent, selective and orally available antagonist of the sphingosine-1-phosphate-1 (S1P1) receptor with an IC50 value of 1.88 nM in CHO cells.
IC_{50} & Target	IC50: 1.88 nM (S1P1)[1]
In Vitro	APD334 is a structurally novel, selective, functional antagonist of $S1P_1$. In CHO cells expressing HA tagged $S1P_1$, APD334 is found to have an IC_{50} value of 1.88 nM. Moderate agonism at human $S1P_4$ and $S1P_5$ is observed but is reduced relative to $S1P_1$, both in terms of potency and efficacy. APD334 is devoid of any agonism or antagonism at human $S1P_2$ and $S1P_3$. APD334 achieves good central exposure following oral dosing and possesses a favorable pharmacokinetic profile in multiple preclinical species. $S1P_1$ activity is maintained in mice (EC_{50}=0.44 nM), rats (EC_{50}=0.32 nM), dogs (EC_{50}=0.34 nM) and monkeys (EC_{50}=0.32 nM)[1].
In Vivo	APD334 has a relatively low systemic clearance (<4% of hepatic blood flow) and high C_{max} across all species. In both dog and monkey a significant decrease in volume of distribution (Vss) is observed relative to rodent. Oral bioavailability is in the range of 40–100%, and the terminal phase half-life varied from 6 h in monkey, to as long as 29 h in dog. Rat and monkey $t_{1/2}$ values for siponimod (another S1P1 modulator currently in human trials) have been disclosed and are 6 and 19 h, respectively[1].
Solvent&Solubility	***In Vitro:*** **DMSO : ≥ 28 mg/mL (61.20 mM)** * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1859 mL	10.9294 mL	21.8589 mL
	5 mM	0.4372 mL	2.1859 mL	4.3718 mL
	10 mM	0.2186 mL	1.0929 mL	2.1859 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

References	[1]. Buzard DJ, et al. Discovery of APD334: Design of a Clinical Stage Functional Antagonist of the Sphingosine-1-phosphate-1 Receptor. ACS Med Chem Lett. 2014 Nov 4;5(12):1313-7.

实验参考：

Animal Administration	Rats: APD334 induced effects on blood lymphopenia are determined in male Sprague-Dawley rats. Briefly, male rats are given a 0 (vehicle only), 0.03 (mice only), 0.1, 0.3 or 1 mg/kg oral dose of APD334 formulated in 0.5% methylcellulose (MC) in water. Rat blood samples are collected at 0, 1, 3, 5, 8, 16, 24, 32, 48 and 72 hours post-dose[1]. Mice: APD334 induced effects on blood lymphopenia are determined in male BALB/c mice. Briefly, male mice are given a 0 (vehicle only), 0.03 (mice only), 0.1, 0.3 or 1 mg/kg oral dose of APD334

	formulated in 0.5% methylcellulose (MC) in water. Mouse blood samples are taken at 0, 1, 3, 5, 8, 16, 24 and 32 hours post-dose[1].
References	[1]. Buzard DJ, et al. Discovery of APD334: Design of a Clinical Stage Functional Antagonist of the Sphingosine-1-phosphate-1 Receptor. ACS Med Chem Lett. 2014 Nov 4;5(12):1313-7.