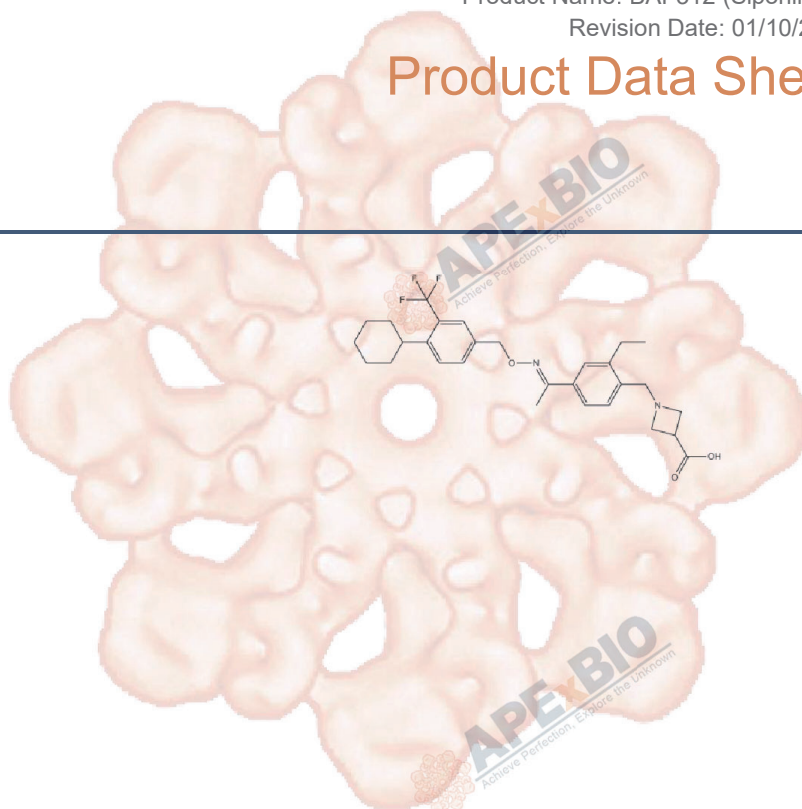


# Product Data Sheet

## BAF312 (Siponimod)

<b>Cat. No.:</b>	B3225
<b>CAS No.:</b>	1230487-00-9
<b>Formula:</b>	C <sub>29</sub> H <sub>35</sub> F <sub>3</sub> N <sub>2</sub> O <sub>3</sub>
<b>M.Wt:</b>	516.6
<b>Synonyms:</b>	
<b>Target:</b>	GPCR/G protein
<b>Pathway:</b>	S1P receptor
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

≥194.8 mg/mL in DMSO; insoluble in H<sub>2</sub>O; ≥3.27 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	1.9357 mL	9.6787 mL	19.3573 mL
	<b>5 mM</b>	0.3871 mL	1.9357 mL	3.8715 mL
	<b>10 mM</b>	0.1936 mL	0.9679 mL	1.9357 mL

Please refer to the solubility information to select the appropriate solvent

### Biological Activity

Shortsummary

S1P agonist, potent and selective

IC<sub>50</sub> & Target

0.39nM (EC<sub>50</sub>) (S1P1 receptors), 0.98nM (EC<sub>50</sub>) (S1P5 receptors)

In Vitro

#### Cell Viability Assay

Cell Line: human atrial myocytes

Preparation method:

This compound is soluble in DMSO. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions:

0.001-1000 nM

	Applications:	In human atrial myocytes, BAF312 concentration-dependently increased GIRK current amplitude with EC50 value of 15.8 nM and reached approximately 80% of the carbachol-induced maximal current activation.
In Vivo	<b>Animal experiment</b>	
	Animal models:	rat experimental autoimmune encephalomyelitis (EAE) model; Lewis rats
	Dosage form:	0.03, 0.3 or 3 mg/kg, orally administrated, 24 day; 1 mg/kg, orally administrated
	Applications:	In rat experimental autoimmune encephalomyelitis (EAE) model, BAF312 starting on day 11 significantly inhibited established neurological deficits. BAF312 at 0.3 or 3 mg/kg caused a significant reduction of disease scores (AUC (area under the concentration–time curve) from days 12 to 34). In Lewis rats, BAF312 (Siponimod) (1 mg/kg) dose-dependently reduced peripheral lymphocyte counts. At the Tmax of 8 h postadministration, the lymphocyte counts were decreased by 88%.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

1. Fettel J, Kühn B, et al. "Sphingosine-1-phosphate (S1P) induces potent anti-inflammatory effects in vitro and in vivo by S1P receptor 4-mediated suppression of 5-lipoxygenase activity." *FASEB J.* 2018 Sep 6;fj201800221R.PMID:30188757

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## References

[1] Gergely P1, Nuesslein-Hildesheim B, Guerini D, Brinkmann V, Traebert M, Bruns C, Pan S, Gray NS, Hinterding K, Cooke NG, Groenewegen A, Vitaliti A, Sing T, Luttringer O, Yang J, Gardin A, Wang N, Crumb WJ Jr, Saltzman M, Rosenberg M, Wallstrm E. The selective sphingosine 1-phosphate receptor modulator BAF312 redirects lymphocyte distribution and has species-specific effects on heart rate. *Br J Pharmacol.* 2012 Nov;167(5):1035-47.

[2] Pan S1, Gray NS1, Gao W1, Mi Y1, Fan Y1, Wang X1, Tuntland T1, Che J1, Lefebvre S1, Chen Y1, Chu A1, Hinterding K2, Gardin A2, End P2, Heining P2, Bruns C2, Cooke NG2, Nuesslein-Hildesheim B2. Discovery of BAF312 (Siponimod), a Potent and Selective S1P Receptor Modulator. *ACS Med Chem Lett.* 2013 Jan 4;4(3):333-7.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for*

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



## APExBIO Technology

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