

# PRODUCT INFORMATION



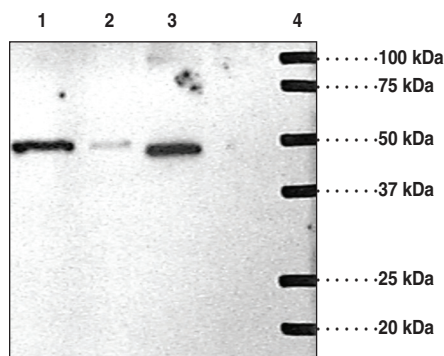
## S1P<sub>1</sub> Polyclonal Antibody

Item No. 10005228

### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
<b>Synonyms:</b>	EDG-1, S1PR1, Sphingosine-1-phosphate Receptor 1
<b>Immunogen:</b>	Peptide from an internal cytoplasmic region of human S1P <sub>1</sub>
<b>Species Reactivity:</b>	(+) Human, mouse, porcine, and rat S1P <sub>1</sub>
<b>Uniprot No.:</b>	P21453
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	As supplied, 3 years from the QC date provided on the Certificate of Analysis, when stored properly
<b>Storage Buffer:</b>	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Applications:</b>	Immunofluorescence (IF), Immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for IF, IHC, and WB is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Lane 1: Mouse brain homogenate (30 mg)  
Lane 2: Rat brain supernatant (60 mg)  
Lane 3: Human liver pellet (60 mg)  
Lane 4: Precision Plus Protein Standard

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

Sphingosine-1-phosphate (S1P) exerts its activity by binding to five distinct G-protein-coupled receptors, S1P<sub>1</sub>/EDG-1, S1P<sub>2</sub>/EDG-5, S1P<sub>3</sub>/EDG-3, S1P<sub>4</sub>/EDG-6, and S1P<sub>5</sub>/EDG-8.<sup>1,2</sup> S1P<sub>1</sub> primarily couples with pertussis toxin-sensitive G<sub>i/o</sub> proteins to mediate S1P-induced cell proliferation, survival, migration, cytoskeletal organization, and morphogenesis.<sup>1-3</sup> Expression of S1P<sub>1</sub> is abundant in embryological vasculature and is ubiquitously expressed in adult cells suggesting diverse physiological functions of this receptor.<sup>2</sup> The human and mouse S1P<sub>1</sub> receptors have 382 amino acids with an estimated molecular weight of 43 kDa. Glycosylation at the N-terminal extracellular domain may cause the protein to migrate at a higher position in SDS-PAGE.<sup>4</sup> Cayman's S1P<sub>1</sub> Polyclonal Antibody detects the receptor at 47 kDa by WB analysis. The antibody can also be used for IF and IHC to study expression patterns of this protein.

## References

1. Takuwa, Y., Takuwa, N., and Sugimoto, N. The Edg family G protein-coupled receptors for lysophospholipids: Their signaling properties and biological activities. *J. Biochem.* **131**, 767-771 (2002).
2. Ishii, I., Fuckushima, N., Ye, X., *et al.* Lysophospholipid receptors: Signaling and biology. *Annu. Rev. Biochem.* **73**, 321-354 (2004).
3. Kluk, M.J. and Hla, T. Signaling of sphingosine-1-phosphate via the S1P/EDG-family of G-protein-coupled receptors. *Biochim. Biophys. Acta* **1582**, 72-80 (2002).
4. Kohno, T., Wada, A., and Igarashi, Y. N-glycans of sphingosine 1-phosphate receptor Edg-1 regulate ligand-induced receptor internalization. *FASEB J.* **16**, 983-992 (2002).

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