

PRODUCT INFORMATION

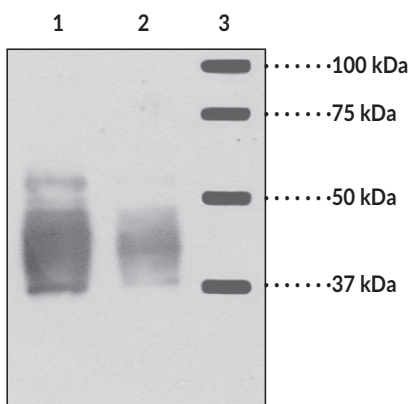


S1P₃ Polyclonal Antibody Item No. 10006373

Overview and Properties

Contents:	This vial contains peptide affinity-purified antibody lyophilized from 500 μ l.
Synonyms:	EDG-3, S1PR3, Sphingosine-1-phosphate Receptor 3
Immunogen:	Synthetic peptide from the N-terminal region of human S1P ₃
Species Reactivity:	(+) Human, mouse, rat; other species not tested
Uniprot No.:	Q99500
Form:	Solid
Storage:	-20°C (as supplied)
Stability:	\geq 3 years
Storage Buffer:	TBS, pH 7.4 with 5 mg/ml BSA when reconstituted with 500 μ l double distilled water
Host:	Rabbit
Applications:	Immunocytochemistry (ICC) and Western blot (WB); the recommended starting dilution for ICC is 1:100 and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: S1P₃ transfected cell lysates (7.5 μ g)
Lane 2: S1P₃ transfected cell lysates (2.5 μ g)
Lane 3: 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, S1P₁/EDG-1, S1P₂/EDG-5, S1P₃/EDG-3, S1P₄/EDG-6, and S1P₅/EDG-8.^{1,2} S1P₃ couples to G_{i/o}-ERK, G_q-PLC, and G_{12/13}-Rho axes to mediate S1P-induced cell proliferation, survival, migration, and related signaling events.¹⁻³ S1P₃ is widely expressed in various tissues, suggesting diverse physiological functions of this receptor.⁴ The human and mouse S1P₃ have 378 amino acids with an estimated molecular weight of 42 kDa. Glycosylation at the N-terminal extracellular domain may cause the protein to migrate at different positions in SDS-PAGE. Cayman's S1P₃ Polyclonal Antibody can be used for immunocytochemistry and Western blot applications. The antibody recognizes S1P₃ at 47 kDa from human, mouse, and rat samples. Liver and heart tissues display 2-3 bands between 40-50 kDa, possibly due to different degree of glycosylation.

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(6)**, 767-771 (2002).
2. Ishii, I., Fukushima, 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(1-3)**, 72-80 (2002).
4. Takuwa, Y. Subtype-specific differential regulation of Rho family G proteins and cell migration by the Edg family sphingosine-1-phosphate receptors. *Biochim. Biophys. Acta.* **1582(1-3)**, 112-120 (2002).

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