

Product datasheet for **TA329055**

S1pr3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DYVGKLAGRLRD, corresponding to amino acid residues 23-34 of mouse Sphingosine 1-phosphate receptor 3 (Accession Q9Z0U9). Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	sphingosine-1-phosphate receptor 3
Database Link:	NP_034231 Entrez Gene 1903 Human Entrez Gene 306792 Rat Entrez Gene 13610 Mouse Q9Z0U9



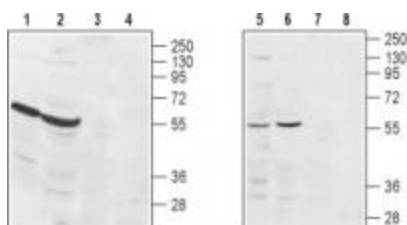
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Background:

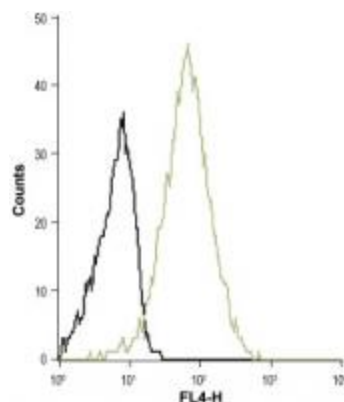
Sphingosine 1-phosphate (S1P) is an active byproduct of sphingomyelin metabolism. All cells can synthesize this biomolecule but the majority of its synthesis comes from erythrocytes and endothelial cells. In cases of inflammation, mast cells and platelets are the main source of sphingosine 1-phosphate. S1P cellular functions could be intracellular, where it is synthesized. In addition, upon secretion, it circulates in the blood via its binding to high-density lipoproteins and albumin. When S1P reaches its target cell it could activate 5 different high affinity receptors belonging to the G-protein coupled receptor superfamily: Sphingosine 1-phosphate receptors, termed S1PR1-5. Stimulation of S1PR receptors triggers a cascade of signaling events depending on the receptor and on the G-protein it couples. S1PR1 couples to Gi. S1PR2 can couple to Gs, Gq or G12/13 and S1PR3-5 can couple to Gi or G12/13. The pathways activated vary from Ca²⁺ mobilization, activation or inhibition of adenylate cyclase phospholipase C activation and more. Through the different signaling pathways these receptors activate, S1PR receptors are implicated in adherens junction assembly, cytoskeletal changes, cell migration, proliferation and apoptosis. S1PR3 is specifically detected in the brain, heart, spleen, liver, lung, thymus, kidney, testis and skeletal muscle. S1PR1 and S1PR2 are generally expressed in the CNS, cardiovascular and immune systems. S1PR4 is specifically expressed in the lymphoid tissue and S1PR5 in natural killer cells and oligodendrocytes. Malfunction of S1PR receptor signaling is reported in various disorders, for example multiple sclerosis and may be targets for the development of therapeutic drugs.

Synonyms:

EDG-3; EDG3; FLJ37523; FLJ93220; LPB3; MGC71696; S1P3

Product images:


Western blot analysis of rat heart (lanes 1 and 3), rat kidney (lanes 2 and 4), Jurkat (lanes 5 and 7) and WEHI (lanes 6 and 8) lysates: 1, 2, 5, 6. Anti-Sphingosine 1-Phosphate Receptor 3 (extracellular) antibody, (1:200). 3, 4, 7, 8. Anti-Sphingosine 1-Phosphate Receptor 3 (extracellular) antibody, preincubated with the control peptide antigen.



Indirect flow cytometry analysis of Raji (human Burkitt's lymphoma) living cells: black line: Unstained cells. Green line: Cells stained with Anti-Sphingosine 1-Phosphate Receptor 3 (extracellular) antibody, (5 µg/5x10⁵ cells).