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Anti-S1P1 Antibody

Mouse Monoclonal Antibody
Catalog # ABV12027

Product Information

Application	WB, IF, E, IP
Primary Accession	P21453
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG2a
Clone Names	2B9
Calculated MW	42811

Additional Information

Gene ID	1901
Application & Usage	WB: HUVEC cells, IP: CHO-S1P1-GFP cell membranes, IF: HUVEC cells
Other Names	S1P Receptor 1, S1PR1, Sphingosine 1-Phosphate Receptor 1, Endothelial differentiation GProtein Coupled Receptor 1, EDG-1.
Target/Specificity	S1PR1
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	Phosphate Buffer 10mM - NaCl 0.15M - pH 7,4
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Anti-S1P1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

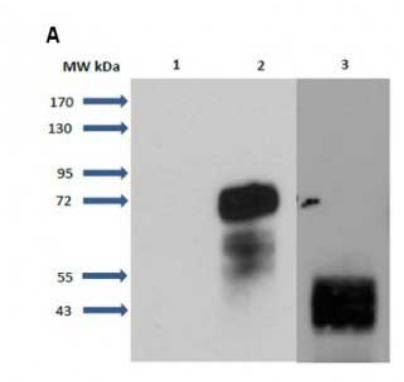
Name	S1PR1
Synonyms	CHEDG1, EDG1
Function	G-protein coupled receptor for the bioactive lysosphingolipid sphingosine 1-phosphate (S1P) that seems to be coupled to the G(i) subclass of

	heteromeric G proteins. Signaling leads to the activation of RAC1, SRC, PTK2/FAK1 and MAP kinases. Plays an important role in cell migration, probably via its role in the reorganization of the actin cytoskeleton and the formation of lamellipodia in response to stimuli that increase the activity of the sphingosine kinase SPHK1. Required for normal chemotaxis toward sphingosine 1-phosphate. Required for normal embryonic heart development and normal cardiac morphogenesis. Plays an important role in the regulation of sprouting angiogenesis and vascular maturation. Inhibits sprouting angiogenesis to prevent excessive sprouting during blood vessel development. Required for normal egress of mature T-cells from the thymus into the blood stream and into peripheral lymphoid organs. Plays a role in the migration of osteoclast precursor cells, the regulation of bone mineralization and bone homeostasis (By similarity). Plays a role in responses to oxidized 1-palmitoyl-2-arachidonoyl-sn-glycero-3- phosphocholine by pulmonary endothelial cells and in the protection against ventilator-induced lung injury.
Cellular Location	Cell membrane; Multi-pass membrane protein. Endosome. Membrane raft. Note=Recruited to caveolin-enriched plasma membrane microdomains in response to oxidized 1-palmitoyl-2-arachidonoyl-sn-glycero-3-phosphocholine. Ligand binding leads to receptor internalization
Tissue Location	Endothelial cells, and to a lesser extent, in vascular smooth muscle cells, fibroblasts, melanocytes, and cells of epithelioid origin

Background

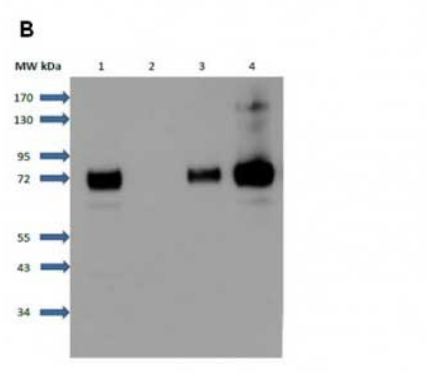
Sphingosine 1-Phosphate Receptor 1 (S1P1) is a multi-pass cell membrane protein that belongs to the Gprotein coupled receptor superfamily (GPCR). S1P1 is a receptor for the lysosphingolipid sphingosine 1-phosphate (S1P). S1P is a bioactive lysophospholipid that elicits diverse physiological effect on most types of cells and tissues. This inducible epithelial cell G-protein-coupled receptor may be involved in the processes that regulate the differentiation of endothelial cells. Clinical significance of S1P1 encompasses various diseases including cancer and multiple sclerosis. S1P1 seems to be coupled to the G(i/o) subclass of heteromeric G proteins

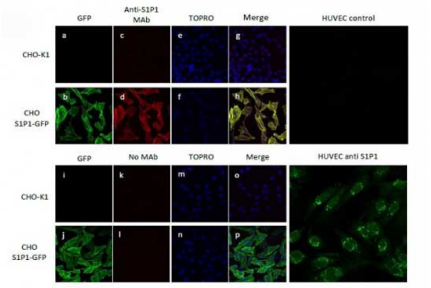
Images



FigA. Detection of S1P1 receptors in transfected cells and human umbilical vein endothelial cells (HUVEC)

Immunoprecipitation of S1P1 receptors





Immunofluorescence detection of S1P1 receptors in transfected cells and HUVEC

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.