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EDG1 Antibody

Rabbit mAb
Catalog # AP91160

Product Information

Application	WB
Primary Accession	P21453
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	S1P receptor 1; S1P1; Endothelial differentiation G-protein coupled receptor 1; Sphingosine 1-phosphate receptor Edg-1; S1P receptor Edg-1; CD363; S1PR1; CHEDG1; EDG1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	42811

Additional Information

Dilution	WB 1:500~1:2000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human EDG1
Description	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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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.

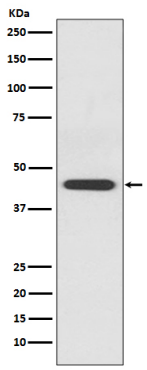
Cellular Location

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

Images



Western blot analysis of EDG1 expression in Jurkat cell lysate.