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EDG1 Antibody (N-term) Blocking Peptide

Synthetic peptide

Catalog # BP6137a

Specification

EDG1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession	P21453
Other Accession	NP_001391

EDG1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 1901

Other Names
Sphingosine 1-phosphate receptor 1, 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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6137a was selected from the N-term region of human EDG1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

EDG1 Antibody (N-term) Blocking Peptide - Protein Information

EDG1 Antibody (N-term) Blocking Peptide - Background

EDG1 is structurally similar to G protein-coupled receptors and is highly expressed in endothelial cells. It binds the ligand sphingosine-1-phosphate with high affinity and high specificity, and suggested to be involved in the processes that regulate the differentiation of endothelial cells. Activation of this receptor induces cell-cell adhesion.

EDG1 Antibody (N-term) Blocking Peptide - References

Dorsam, G., et al., J. Immunol. 171(7):3500-3507 (2003).zu Heringdorf, D.M., et al., Cell. Signal. 15(7):677-687 (2003).Watterson, K.R., et al., J. Biol. Chem. 277(8):5767-5777 (2002).Liu, Y., et al., J. Clin. Invest. 106(8):951-961 (2000).Lee, M.J., et al., Cell 99(3):301-312 (1999).

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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

EDG1 Antibody (N-term) Blocking Peptide - Protocols

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Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides