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Product Information

Monoclonal Anti-Endothelial Cell Differentiation Gene (EDG-6), C-Terminal

Clone 1

Purified Mouse Immunoglobulin

Product Number **E 9529**

Product Description

Monoclonal Anti-Endothelial Cell Differentiation Gene (EDG-6), C-Terminal (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of splenocytes from mice immunized with a synthetic peptide derived from the C-terminal region of the EDG-6 protein and mouse myeloma cells. The antibody was purified from tissue culture supernatant using Protein A/Protein G chromatography.

Monoclonal Anti-Endothelial Cell Differentiation Gene (EDG-6), C-Terminal detects specifically human recombinant and native EDG-6 protein (approximately 45 kDa).

Recent studies have identified the existence of the G protein-coupled heptahelical receptor subfamily named Endothelial Cell Differentiation Genes (EDG) for the biologically active lysophospholipids. EDGs consist of two receptor subgroups specific for S1P and LPA, respectively. The S1P receptor subgroup comprises EDG-1, 3, 5, 6, and 8, with considerable amino acid similarity among them. The LPA subgroup includes EDG-2, 4, and 7.^{1,2} EDG receptors are developmentally regulated and differ in their tissue expression. The amino acid sequence similarity between EDG receptors reflects the similarity of S1P and LPA.

cDNAs encoding EDG-6 were cloned in 1998 from differentiated human and murine dendritic cells *in vitro*. EDG-6 is specifically expressed in fetal and adult lymphoid and hematopoietic tissue as well as in lung. The 384 amino acid EDG-6 receptor protein has 7 transmembrane domains. The expression pattern of EDG-6 is strongly conserved in human and mouse. Homology of EDG-6 to the known SP1 receptors EDG-1, 3, and 5 and to the LPA receptors EDG-2 and 4 suggested that its ligand might be a lysophospholipid or lysosphingolipid.^{3,4}

Reagent

Monoclonal Anti-Endothelial Cell Differentiation Gene (EDG-6), C-Terminal is supplied as approximately 1 mg/ml solution in phosphate buffered saline containing 0.08% sodium azide.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at -20°C . Upon initial thawing freeze the solution in working aliquots for extended storage. Avoid repeated freezing and thawing to prevent denaturing the antibody. Storage in "frost-free" freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. The antibody is stable for at least 12 months when stored appropriately. Working dilutions should be discarded if not used within 12 hours.

Product Profile

By immunoblotting and flow cytometry, a working antibody concentration of 5 to 10 $\mu\text{g}/\text{ml}$ is recommended using RH7777 rat hepatoma cells transfected with EDG-6 protein as a positive control. Preincubation of the antibody with the immunizing peptide (Prod. No. E 9654) blocks detection of EDG-6. To detect native EDG-6 in cells and tissues, use higher antibody concentrations.

In order to obtain the best results in various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Kupperman, E., et al., A sphingosine-1-phosphate receptor regulates cell migration during vertebrate heart development. *Nature*, **406**, 192-195 (2000).
2. Takuwa, Y., et al., Subtype-specific, differential activities of the EDG family receptor sphingosine-1-phosphate, a novel lysophospholipid mediator. *Mol. Cell Endocrinol.*, **177**, 3-11 (2001).
3. Graler, M., et al., EDG6, a novel G-protein-coupled receptor related to receptors for bioactive lysophospholipids, is specifically expressed in lymphoid tissue. *Genomics*, **53**, 164-169 (1998).
4. Van Brocklyn, J.R., et al., Sphingosine-1-phosphate is a ligand for the G protein-coupled receptor EDG-6. *Blood*, **95**, 2624-2629 (2001).

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