

Sphingosine 1 Phosphate 3 Receptor (EDG-3) NT. Rabbit Polyclonal Antibody

Endothelial cell differentiation gene 3 N-terminal; Sphingosine-1-Phosphate Receptor-3 (S1P₃)

BACKGROUND

Endothelial cell differentiation gene-3 (EDG3) belongs to a family of G-protein couple receptors whose ligands are lysophospholipids. The ligand for EDG3 is sphingosine-1-phosphate. There are 8 known members of the EDG receptor family. They have been implicated in mediating growth related effects such as induction of cellular proliferation, alterations in differentiation and survival suppression of apoptosis. They also evoke cellular effector functions that are dependent on cytoskeletal responses such as contraction, secretion, adhesion and chemotaxis. EDG receptors are developmentally regulated and differ in tissue distribution. The couple to multiple types of G proteins to signal through ras and MAP kinase, rho, phospholipase C and several protein tyrosine kinases. EDG3 is expressed in cardiovascular, leukocyte-containing and other tissues.

ORDERING INFORMATION

CATALOG NUMBER

X1590P

SIZE

100 µg

FORM

Unconjugated

HOST/CLONE

Rabbit

FORMULATION

Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION

See vial for concentration

ISOTYPE**APPLICATIONS**

Western Blot

SPECIES REACTIVITY

Human

ACCESSION NUMBER

Q99500, Human

IMMUNOGEN

Synthetic peptide derived from the N terminal of the EDG3 (S1P₃) protein.

POSITIVE CONTROL/TISSUE EXPRESSION

RH7777 cells transfected with EDG3 (S1P₃) protein

COMMENTS

Antibody can be used for Western blotting (5-10 µg/ml). Optimal concentration should be evaluated by serial dilutions. Due to low expression of EDG receptors, we recommend use of Pierce Femto Signal substrate for western blot development.

PURIFICATION

Ammonium Sulfate Precipitation

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Goetzl EJ and An, S. Diversity of cellular receptors and functions for the lysophospholipid growth factors lysophosphatidic acid and sphingosine 1-phosphate. *FASEB J.* 1998: 12, 1589-98.

2. An, S., Goetzl, E.J., Lee, H. Signaling mechanisms and molecular characteristics of G protein-coupled receptors for lysophosphatidic acid and sphingosine 1-phosphate. *J. Cell Biochem. Suppl.* 1998: 30-31, 147-57.

PRODUCT SPECIFIC REFERENCES

1. Licht, Tamar et al, 'Induction of pro-angiogenic signaling by a synthetic peptide derived from the second intracellular loop of SIP3 (EDG3)' *Blood* 2003, 102, 6, 2099-2107

2. Sun, X., et al. 'Sphingosine-1-Phosphate Receptor-3 Is a Novel Biomarker in Acute Lung Injury.' *American Journal of Respiratory Cell and Molecular Biology*, Nov 2012, 47(5): 628-636.