Sphingosine 1 Phosphate Receptor 1 (EDG-1) CT. Rabbit Polyclonal Antibody Human, Mouse, Rat

Endothelial cell differentiation gene 1 C-terminal

Background

EDG-1 belongs to a family of G-protein coupled receptors whose ligands are lysophospholipids. The ligand for EDG-1 is sphingosine -1-phosphate. There are 8 known members of the EDG receptor family and they are implicated in mediating growth related effects such as induction of cellular proliferation, alterations in differentiation and survival and 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. They couple to multiple types of G proteins to signal through ras and MAP kinase, rho, phospholipase C and several protein tyrosine kinases. EDG-1 is expressed in cardiovascular, leukocyte- containing and other tissues.

Ordering Information

Catalog Number
X1093P

Size
100 µg

Form
Unconjugated

Host/Clone
Rabbit

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

Concentration
1 mg/ml

Isotype
IgG

Applications
Western Blot

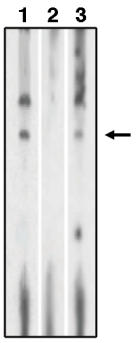
Species Reactivity

Human, Mouse, Rat

Immunogen

Synthetic peptide derived from the C-terminal of the EDG-1 receptor

Legend:
Western blot analysis of lysates of RH7777 cells transfected with full lenth human EDG-1 protein using anti-EDG-1 CT antibody at 10 µg/ml (1), antibody preincubated with specific blocking peptide (2) and antibody preincubated with non-specific control peptide (3) using Pierce Femto Signal substrate.



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POSITIVE CONTROL/TISSUE EXPRESSION

RH7777 cells transfected with full length EDG-1 protein.

COMMENTS

Detects EDG1 receptors at concentration of 5-10 μg/ml by Western blot using a human EDG1 receptor transfected cell line. Detects an approximately 44 kDa band in RH7777 cells transfected with full length human EDG1. Due to low expression of EDG receptors, we recommend use of Pierce Femto Signal substrate for western blot development. Optimal concentration should be evaluated by serial dilutions.

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

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

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. "Edg-1, the G protein-coupled receptor for sphingosine-1-phosphate, is essential for vascular maturation." Liu, Y., et al., J. Clin. Invest., 2000, 106, 951-961.

2. "Expression and characterization of edg-1 receptors in rat cardiomyocytes calcium deregulation in response to sphingosine-1-phosphate." Nakajima, N., et al., Eur. J. Biochem., 2000, 267, 5679-5686.

3. "Diversity of cellular receptors and functions for the lysophospholipid growth factors lysophosphatidic acid and sphingosine 1-phosphate." Goetzl, E.J. and An, S.,FASEB J., 12(15), 1589 -1598 (1998).

Specific Product References

1) Western Blot: “Transduction of Multiple Effects of Sphingosine 1-Phosphate (S1P) on T Cell Function by the S1P1 G Protein Coupled Receptor.” Dorsam, Glenn, et al., Journal of Immunology, 2003, 3500-3507.

2) Immunocytochemistry: “Differential transactivation of Sphingoise-1 Phosphate Receptors modulate NGF-induced neurite extension.” Toman, Rachelle E., et al., Journal of Cell Biology, Aug. 2, 2004, vol 166, no.3, 381-392.

3) Western Blot: “Transactivation of Sphingosine-1-Phosphate Recpetors by FceRI Triggering is Required for Normal Mast Cell Degranulation and Chemotaxis.” Jolly, Puneet S., et al., Journal of Experimental Medicine, April 5, 2004, vol. 199, no. 7, 959–970.

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