

# EDG-8 (H-88): sc-25493

## BACKGROUND

The EDG (endothelial differentiation gene) family of G protein coupled receptors consists of eight family members that bind lysophospholipid (LPL) mediators, including sphingosine-1-phosphate (SPP) and lysophosphatidic acid (LPA). EDG-1, EDG-3, EDG-5 (also designated H218 and AGR16) and EDG-8 bind SPP with high-affinity. EDG-6 is a low-affinity receptor for SPP. LPA preferentially binds to EDG-2, EDG-4 and EDG-7. The EDG receptors couple to multiple G proteins to signal through Ras, MAP kinase, Rho, Phospholipase C or other tyrosine kinases, which lead to cell survival, growth, migration and differentiation. EDG-1 signals through G<sub>i</sub> proteins to activate Akt and is expressed in glioma cells. EDG-2 is expressed in brain, especially in white matter tract regions, while EDG-3 is expressed in cardiovascular tissue and in cerebellum. EDG-4 is highly expressed on leukocytes and brain, and EDG-5 has wide tissue distribution, including cardiovascular tissue and brain. Expressed in lymphoid and hematopoietic tissues and in lung, EDG-6 signals through G<sub>i/o</sub> proteins, which activate growth related pathways.

## REFERENCES

- Goetzl, E. J. and An, S. 1999. A subfamily of G protein-coupled cellular receptors for lysophospholipids and lysosphingolipids. *Adv. Exp. Med. Biol.* 469: 259-264.
- Van Brocklyn, J.R., Graler, M.H., Bernhardt, G., Hobson, J.P., Lipp, M. and Spiegel, S. 2000. Sphingosine-1-phosphate is a ligand for the G protein-coupled receptor EDG-6. *Blood* 95: 2624-2629.1.
- Sato, K., Ui, M. and Okajima, F. 2000. Differential roles of EDG-1 and EDG-5, sphingosine 1-phosphate receptors, in the signaling pathways in C6 glioma cells. *Brain Res. Mol. Brain Res.* 85: 151-160.
- Pyne, S. and Pyne, N.J. 2000. Sphingosine 1-phosphate signalling in mammalian cells. *Biochem. J.* 349: 385-402.
- Zheng, Y., Kong, Y. and Goetzl, E.J. 2001. Lysophosphatidic acid receptor-selective effects on Jurkat T cell migration through a matrigel model basement membrane. *J. Immunol.* 166: 2317-2322.

## CHROMOSOMAL LOCATION

Genetic locus: S1PR5 (human) mapping to 19p13.2; S1pr5 (mouse) mapping to 9 A3.

## SOURCE

EDG-8 (H-88) is a rabbit polyclonal antibody raised against amino acids 311-398 of EDG-8 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

EDG-8 (H-88) is recommended for detection of EDG-8 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EDG-8 siRNA (h): sc-39930, EDG-8 siRNA (m): sc-39931, EDG-8 shRNA Plasmid (h): sc-39930-SH, EDG-8 siRNA (m): sc-39931-SH, EDG-8 shRNA (h) Lentiviral Particles: sc-39930-V and EDG-8 siRNA (m) Lentiviral Particles: sc-39931-V.

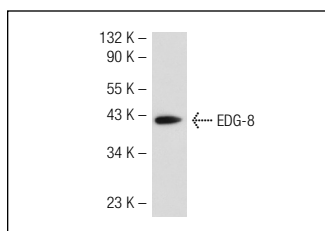
Molecular Weight of EDG-8: 42 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

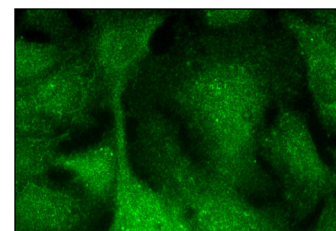
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



EDG-8 (H-88): sc-25493. Western blot analysis of EDG-8 expression in Hep G2 whole cell lysate.



EDG-8 (H-88): sc-25493. Immunofluorescence staining of formalin-fixed Hep G2 cells showing membrane localization.

## SELECT PRODUCT CITATIONS

- Rodgers, A., Mormeneo, D., Long, J.S., Delgado, A., Pyne, N.J. and Pyne, S. 2009. Sphingosine 1-phosphate regulation of extracellular signal-regulated kinase-1/2 in embryonic stem cells. *Stem Cells Dev.* 18: 1319-1330.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.