

EDG-2 (S-13): sc-22207

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_i 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. EDG-6, which is expressed in lymphoid and hematopoietic tissues and in lung, signals through G_{i/o} proteins, which activate growth related pathways.

CHROMOSOMAL LOCATION

Genetic locus: LPAR1 (human) mapping to 9q31.3; Lpar1 (mouse) mapping to 4 B3.

SOURCE

EDG-2 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of EDG-2 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.

Blocking peptide available for competition studies, sc-22207 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

EDG-2 (S-13) is recommended for detection of EDG-2 of mouse, rat and human 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).

EDG-2 (S-13) is also recommended for detection of EDG-2 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for EDG-2 siRNA (h): sc-43746, EDG-2 siRNA (m): sc-60093, EDG-2 shRNA Plasmid (h): sc-43746-SH, EDG-2 shRNA Plasmid (m): sc-60093-SH, EDG-2 shRNA (h) Lentiviral Particles: sc-43746-V and EDG-2 shRNA (m) Lentiviral Particles: sc-60093-V.

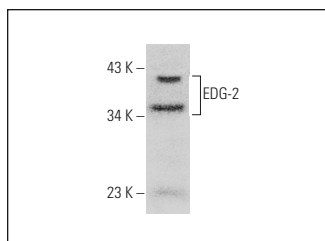
Molecular Weight of EDG-2: 41 kDa.

Positive Controls: A549 cell lysate: sc-2413.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



EDG-2 (S-13): sc-22207. Western blot analysis of EDG-2 expression in A549 whole cell lysate.

SELECT PRODUCT CITATIONS

- Pilpel, Y., et al. 2006. The role of LPA1 in formation of synapses among cultured hippocampal neurons. *J. Neurochem.* 97: 1379-1392.
- Olianas, M.C., et al. 2015. Antidepressants activate the lysophosphatidic acid receptor LPA1 to induce Insulin-like growth factor-I receptor transactivation, stimulation of ERK1/2 signaling and cell proliferation in CHO-K1 fibroblasts. *Biochem. Pharmacol.* 95: 311-323.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **EDG-2 (B-10): sc-515665** or **EDG-2 (D-6): sc-515680**, our highly recommended monoclonal alternatives to EDG-2 (S-13).