EDG-1 (A-6): sc-48356

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 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_Gd proteins, which activate growth related pathways.

CHROMOSOMAL LOCATION
Genetic locus: S1PR1 (human) mapping to 1p21.2.

SOURCE
EDG-1 (A-6) is a mouse monoclonal antibody raised against amino acids 322-381 of EDG-1 of human origin.

PRODUCT
Each vial contains 200 µg IgG3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EDG-1 (A-6) is available conjugated to agarose (sc-48356 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48356 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-48356 PE), fluorescein (sc-48356 FITC) or Alexa Fluor® 488 (sc-48356 AF488) or Alexa Fluor® 647 (sc-48356 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

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APPLICATIONS
EDG-1 (A-6) is recommended for detection of EDG-1 of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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-1 siRNA (h): sc-37086, EDG-1 shRNA Plasmid (h): sc-37086-SH and EDG-1 shRNA (h) Lentiviral Particles: sc-37086-V.

Molecular Weight of EDG-1: 38 kDa.


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

DATA

EDG-1 (A-6): sc-48356. Western blot analysis of EDG-1 expression in human hippocampus (A), human cerebral cortex (B), human hypothalamus (C) and human cerebellum (D) tissue extracts.

SELECT PRODUCT CITATIONS
3. Quint, K., et al. 2014. The role of sphingosine kinase isoforms and receptors S1P1, S1P2, S1P3, and S1P5 in primary, secondary, and recurrent glioblastomas. Tumour Biol. 35: 8979-8989.

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