

ECSCR (S-16): sc-241394

BACKGROUND

ECSCR (endothelial cell-specific chemotaxis regulator), also known as ARIA or ECSM2, is a 205 amino acid single-pass type I membrane protein belonging to the ECSCR family. Expressed in endothelial-specific cells and blood vessels, ECSCR interacts with Filamin 1 and regulates endothelial chemotaxis and tube formation. It is suggested that ECSCR participates in suppressing tyrosine phosphorylation signaling, cell-shape changes and actin cytoskeletal rearrangement. ECSCR reduces the signal of the Shc-Ras-ERK pathway thereby decreasing EGF-induced cell migration by communicating with EGFR (epidermal growth factor receptor). It is thought that ECSCR uniquely regulates both endothelial apoptosis and angiogenesis by modulating proteasomal degradation of c-IAP1 and c-IAP2 in endothelial cells. Evolutionarily conserved, ECSCR plays a pivotal role in the pathogenesis of many angiogenesis-related diseases.

REFERENCES

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3. Armstrong, L.J., et al. 2008. ECSM2, an endothelial specific filamin a binding protein that mediates chemotaxis. *Arterioscler. Thromb. Vasc. Biol.* 28: 1640-1646.
4. Verissimo, A.R., et al. 2009. Functionally defining the endothelial transcriptome, from Robo4 to ECSCR. *Biochem. Soc. Trans.* 37: 1214-1217.
5. Ma, F., et al. 2009. Endothelial cell-specific molecule 2 (ECSM2) modulates actin remodeling and epidermal growth factor receptor signaling. *Genes Cells* 14: 281-293.
6. Ikeda, K., et al. 2009. Identification of ARIA regulating endothelial apoptosis and angiogenesis by modulating proteasomal degradation of cIAP-1 and cIAP-2. *Proc. Natl. Acad. Sci. USA* 106: 8227-8232.
7. Verma, A., et al. 2010. Endothelial cell-specific chemotaxis receptor (ecscr) promotes angioblast migration during vasculogenesis and enhances VEGF receptor sensitivity. *Blood* 115: 4614-4622.

CHROMOSOMAL LOCATION

Genetic locus: ECSCR (human) mapping to 5q31.2.

SOURCE

ECSCR (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of ECSCR 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-241394 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ECSCR (S-16) is recommended for detection of ECSCR of 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).

Suitable for use as control antibody for ECSCR siRNA (h): sc-270116, ECSCR shRNA Plasmid (h): sc-270116-SH and ECSCR shRNA (h) Lentiviral Particles: sc-270116-V.

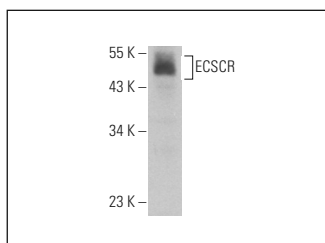
Molecular Weight of glycosylated ECSCR: 60 kDa.

Positive Controls: human lung extract: sc-363767.

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



ECSCR (S-16): sc-241394. Western blot analysis of ECSCR expression in human lung tissue extract.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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