

ECSCR (A-6): sc-515896

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

1. Permana, P.A., et al. 2004. Subcutaneous abdominal preadipocyte differentiation *in vitro* inversely correlates with central obesity. *Am. J. Physiol. Endocrinol. Metab.* 286: E958-E962.
2. Komaletdinova, F.M. and Pinaev, G.P. 2006. The filamin in cell signaling. *Tsitologiya* 48: 924-934.
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.

CHROMOSOMAL LOCATION

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

SOURCE

ECSCR (A-6) is a mouse monoclonal antibody raised against amino acids 58-104 mapping within an internal region of ECSCR of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ECSCR (A-6) is available conjugated to agarose (sc-515896 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515896 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515896 PE), fluorescein (sc-515896 FITC), Alexa Fluor® 488 (sc-515896 AF488), Alexa Fluor® 546 (sc-515896 AF546), Alexa Fluor® 594 (sc-515896 AF594) or Alexa Fluor® 647 (sc-515896 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515896 AF680) or Alexa Fluor® 790 (sc-515896 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ECSCR (A-6) is recommended for detection of ECSCR 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) 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.

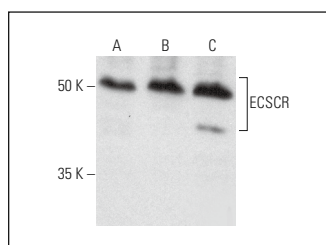
Positive Controls: MES-SA/Dx5 cell lysate: sc-2284, NTERA-2 cl.D1 whole cell lysate: sc-364181 or ES-2 cell lysate: sc-24674.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ECSCR (A-6): sc-515896. Western blot analysis of ECSCR expression in MES-SA/Dx5 (A), NTERA-2 cl.D1 (B) and ES-2 (C) whole cell lysates.

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 for detailed protocols and support products.