

Endomucin (V.5C7): sc-53941

BACKGROUND

Mucin-like membrane glycoproteins contain many serine and threonine residues, which carry large amounts of O-linked glycans, forcing the molecule into an extended structure. Endomucin, also known as EMCN or Mucin-14, is a 261 amino acid protein which contains a transmembrane sequence and multiple glycosylation sites. Human Endomucin, which is highly expressed in vascular tissues such as heart, kidney and lung, exists as both an unprocessed precursor peptide and as a 241 amino acid processed protein, known as Endomucin 2. Mouse Endomucin is an endothelial antigen found in venous endothelium, as well as capillaries, but not on arterial endothelium. Endomucin expression is increased while endothelial cells are proliferating or are stimulated by tumor-conditioned media or specific angiogenic factors such as bFGF (basic fibroblast growth factor) and TNF α . Overexpression of Endomucin inhibits adhesion and aggregation of hematopoietic cells, suggesting that Endomucin may play a role in detachment of hematopoietic cells from endothelium during early hematopoiesis.

CHROMOSOMAL LOCATION

Genetic locus: Emcn (mouse) mapping to 3 G3.

SOURCE

Endomucin (V.5C7) is a rat monoclonal antibody raised against bEND.3 endothelioma of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Endomucin (V.5C7) is available conjugated to agarose (sc-53941 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53941 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53941 PE), fluorescein (sc-53941 FITC), Alexa Fluor[®] 488 (sc-53941 AF488), Alexa Fluor[®] 546 (sc-53941 AF546), Alexa Fluor[®] 594 (sc-53941 AF594) or Alexa Fluor[®] 647 (sc-53941 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-53941 AF680) or Alexa Fluor[®] 790 (sc-53941 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Endomucin (V.5C7) is recommended for detection of Endomucin of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1×10^6 cells); not recommended for detection of human Endomucin.

Suitable for use as control antibody for Endomucin siRNA (m): sc-43155, Endomucin shRNA Plasmid (m): sc-43155-SH and Endomucin shRNA (m) Lentiviral Particles: sc-43155-V.

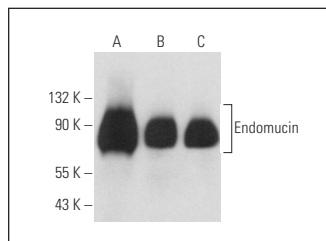
Molecular Weight of Endomucin: 80 kDa.

Positive Controls: Endomucin (m): 293T Lysate: sc-120037, mouse kidney extract: sc-2255 or mouse heart extract: sc-2254.

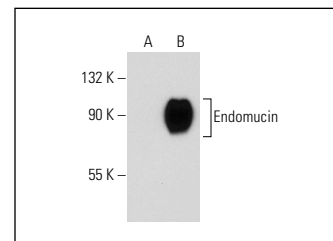
STORAGE

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

DATA



Endomucin (V.5C7): sc-53941. Western blot analysis of Endomucin expression in mouse kidney (A), mouse heart (B) and mouse adrenal gland (C) tissue extracts.



Endomucin (V.5C7): sc-53941. Western blot analysis of Endomucin expression in non-transfected: sc-117752 (A) and mouse Endomucin transfected: sc-120037 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Klotz, L., et al. 2015. Cardiac lymphatics are heterogeneous in origin and respond to injury. *Nature* 522: 62-67.
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3. Chauvet, N., et al. 2017. Complementary actions of dopamine D2 receptor agonist and anti-vegf therapy on tumoral vessel normalization in a transgenic mouse model. *Int. J. Cancer* 140: 2150-2161.
4. Overman, J., et al. 2017. Pharmacological targeting of the transcription factor SOX18 delays breast cancer in mice. *Elife* 6: e21221.
5. Haraguchi, R., et al. 2018. Growth plate-derived hedgehog-signal-responsive cells provide skeletal tissue components in growing bone. *Histochem. Cell Biol.* 149: 365-373.
6. Pichol-Thienvend, C., et al. 2018. A blood capillary plexus-derived population of progenitor cells contributes to genesis of the dermal lymphatic vasculature during embryonic development. *Development* 145: dev160184.
7. Overman, J., et al. 2019. R-propranolol is a small molecule inhibitor of the SOX18 transcription factor in a rare vascular syndrome and hemangioma. *Elife* 8: e43026.
8. Jafree, D.J., et al. 2020. Tissue clearing and deep imaging of the kidney using confocal and two-photon microscopy. *Methods Mol. Biol.* 2067: 103-126.
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10. Rondon-Galeano, M., et al. 2020. MAFB modulates the maturation of lymphatic vascular networks in mice. *Dev. Dyn.* 249: 1201-1216.

RESEARCH USE

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