**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 encodes a 261 amino acid protein, which contains a transmembrane sequence and multiple glycosylation sites. Human Endomucin is highly expressed in vascular tissues such as heart, kidney and lung. 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. Two types of Endomucin are identified that are termed Endomucin-1 and Endomucin-2. Exogenously expressed human Endomucin-1/-2 are modified into glycoproteins. Both Endomucin-1 and Endomucin-2 negatively regulate cell adhesion to the extracellular matrix. Overexpression of Endomucin-1 inhibits adhesion and aggregation of hematopoietic cells, suggesting that Endomucin-1 may play a role in detachment of hematopoietic cells from endothelium during early hematopoiesis.

**REFERENCES**


**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 µg 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 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53941 HRP), 200 µg/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 µg/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 µg/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 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 flow cytometry (1 µg per 1 x 10⁶ 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.

**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 mouse kidney (A), mouse heart (B) and mouse adrenal gland (C) tissue extracts.

**SELECT PRODUCT CITATIONS**


**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.