

Endomucin (A-15): sc-19900

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

1. Cyster, J.G., et al. 1991. The dimensions of the T lymphocyte glycoprotein leukosialin and identification of linear protein epitopes that can be modified by glycosylation. *EMBO J.* 10: 893.
2. Morgan, S.M., et al. 1999. Biochemical characterization and molecular cloning of a novel endothelial-specific sialomucin. *Blood* 93: 165-175.
3. Ueno, M., et al. 2001. Endomucin is expressed in embryonic dorsal aorta and is able to inhibit cell adhesion. *Biochem. Biophys. Res. Commun.* 287: 501-506.
4. Liu, C., et al. 2001. Human Endomucin is an endothelial marker. *Biochem. Biophys. Res. Commun.* 288: 129-136.
5. Kinoshita, M., et al. 2001. Identification of human Endomucin-1 and -2 as membrane-bound O-sialoglyco-proteins with anti-adhesive activity. *FEBS Lett.* 499: 121-126.

CHROMOSOMAL LOCATION

Genetic locus: EMCN (human) mapping to 4q23; Emcn (mouse) mapping to 3 G3.

SOURCE

Endomucin (A-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Endomucin of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-19900 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Endomucin (A-15) 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

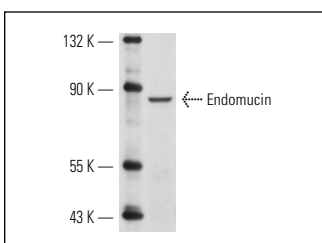
Molecular Weight of Endomucin: 80 kDa.

Positive Controls: rat lung extract: sc-2396.

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



Endomucin (A-15): sc-19900. Western blot analysis of Endomucin expression in rat 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.



Try **Endomucin (V.7C7): sc-65495** or **Endomucin (V.5C7): sc-53941**, our highly recommended monoclonal alternatives to Endomucin (A-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Endomucin (V.7C7): sc-65495**.