

Endomucin (m): 293T Lysate: sc-120037

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.

REFERENCES

1. Cyster, J.G., Shotton, D.M. and Williams, A.F. 1991. The dimensions of the T lymphocyte glycoprotein leukosialin and identification of linear protein epitopes that can be modified by glycosylation. *EMBO J.* 10: 893-902.
2. Morgan, S.M., Samulowitz, U., Darley, L., Simmons, D.L. and Vestweber, D. 1999. Biochemical characterization and molecular cloning of a novel endothelial-specific sialomucin. *Blood* 93: 1165-175.
3. Ueno, M., Igarashi, K., Kimura, N., Okita, K., Takizawa, M., Nobuhisa, I., Kojima, T., Kitamura, T., Samulowitz, U., Vestweber, D., Shimomura, T., Suda, T., Nakashima, K. and Taga, T. 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., Shao, Z.M., Zhang, L., Beatty, P., Sartippour, M., Lane, T., Livingston, E. and Nguyen, M. 2001. Human Endomucin is an endothelial marker. *Biochem. Biophys. Res. Commun.* 288: 129-136.
5. Kinoshita, M., Nakamura, T., Ihara, M., Haraguchi, T., Hiraoka, Y., Tashiro, K. and Noda, M. 2001. Identification of human Endomucin-1 and -2 as membrane-bound O-sialoglycoproteins with anti-adhesive activity. *FEBS Lett.* 499: 121-126.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 608350. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

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

PRODUCT

Endomucin (m): 293T Lysate represents a lysate of mouse Endomucin transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

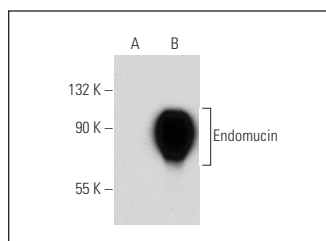
APPLICATIONS

Endomucin (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Endomucin antibodies. Recommended use: 10-20 μ l per lane.

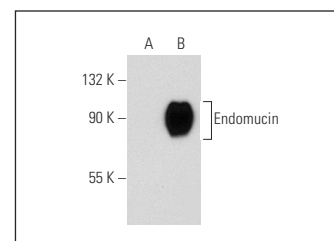
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Endomucin (V.7C7): sc-65495 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Endomucin expression in Endomucin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



Endomucin (V.7C7): sc-65495. Western blot analysis of Endomucin expression in non-transfected: sc-117752 (A) and mouse Endomucin transfected: sc-120037 (B) 293T whole cell lysates.



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.

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.