

AR60010PU-N**Mouse Endomucin (His-tag) - Purified****Alternate names:**

EMCN, EMCN2, Endomucin-2, Gastric cancer antigen Ga34, MUC14, Mucin-14

Quantity:

20 µg

Background:

Endomucin (endothelial sialomucin; also Endomucin-1/2 and Mucin-14) is an 80 - 120 kDa glycoprotein member of the Endomucin family of proteins. It is expressed on endothelial cells and depending upon its glycosylation pattern, can serve as either a pro- or anti-adhesive molecule. Mouse Endomucin precursor is 261 amino acids in length. It is type I transmembrane protein that contains a 170 aa extracellular domain (ECD) (aa 21 - 190) and a 50 aa cytoplasmic region. Three splice variants exist in the ECD. One shows a deletion of aa 91 - 141, a second shows a one aa substitution for aa 91 - 129, and a third shows a one aa substitution for aa 129 - 142. Over aa 21 - 90, mouse Endomucin shares 60% and 30% aa identity with rat and human Endomucin, respectively.

Uniprot ID:[Q9R0H2](#)**NCBI:**[NP_001156994.1](#)**GeneID:**[59308](#)**Species:**

Mouse

Source:

E. coli

Format:**State:** Lyophilized protein**Purity:** >95% by SDS-PAGE & Silver staining**Buffer System:** 10mM NaP, pH 7.0**Stabilizers:** None**Reconstitution:** Restore in water or PBS to a concentration of not lower than 100 µg/ml.**Description:**

Recombinant mouse soluble Endomucin.

The sequence corresponds to Glu20 to Ser190. A 6x His-tag is fused to the C-terminal end.

Result by N-terminal sequencing: EDGKDVQND**AA Sequence:**EDGKDVQNDSIPTPAETSTTKASVTIPGIVSVTNPNKPADGTPPEGTTKSDVSQTSLSVTTINSLTTPKHEVGT
TTTEG
PLRNESSTMKITVPNTPTSANSTLPGSQNKTEHQSSIRTEISVTTQLLALPKITATSSASLTTAHTMSLL
QDTEG

RKIATTPSTTPSYSTRHHHHHH

Molecular weight: ~ 18.78 kDa (Monomer, 178 amino acids)**Add. Information:**

mRNA RefSeq: NM_001163522.1

Storage:

Prior to reconstitution store at 2-8°C.

Following reconstitution store undiluted at 2-8°C for one month
or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Kinoshita M et al, FEBS Lett 499 (1-2): 121 (2001).
2. Kuhn A, Brachtendorf G, Kurth F, Sonntag M, Samulowitz U, Metze D, et al. Expression of endomucin, a novel endothelial sialomucin, in normal and diseased human skin. *J Invest Dermatol.* 2002 Dec;119(6):1388-93. PubMed PMID: 12485444.
3. Matsubara A, Iwama A, Yamazaki S, Furuta C, Hirasawa R, Morita Y, et al. Endomucin, a CD34-like sialomucin, marks hematopoietic stem cells throughout development. *J Exp Med.* 2005 Dec 5;202(11):1483-92. Epub 2005 Nov 28. PubMed PMID: 16314436.
4. Brachtendorf G, Kuhn A, Samulowitz U, Knorr R, Gustafsson E, Potocnik AJ, et al. Early expression of endomucin on endothelium of the mouse embryo and on putative hematopoietic clusters in the dorsal aorta. *Dev Dyn.* 2001 Nov;222(3):410-9. PubMed PMID: 11747076.
5. Morgan SM, Samulowitz U, Darley L, Simmons DL, Vestweber D. Biochemical characterization and molecular cloning of a novel endothelial-specific sialomucin. *Blood.* 1999 Jan 1;93(1):165-75. PubMed PMID: 9864158.
6. Samulowitz U, Kuhn A, Brachtendorf G, Nawroth R, Braun A, Bankfalvi A, et al. Human endomucin: distribution pattern, expression on high endothelial venules, and decoration with the MECA-79 epitope. *Am J Pathol.* 2002 May;160(5):1669-81. PubMed PMID: 12000719.

Pictures:

SDS-PAGE analysis of recombinant mouse soluble Endomucin produced in *E. coli* Cat.-No. AR60010PU-N. Sample was loaded in 15% SDS-polyacrylamide gel under reducing condition and stained with Silver staining.

