# Recombinant human Endocan/ESM1 protein

Catalog Number: ATGP3827

## PRODUCT INFORMATION

**Expression system**
Baculovirus

**Domain**
20-184aa

**UniProt No.**
Q9NQ30

**NCBI Accession No.**
NP_008967

**Alternative Names**
Endocan, Endothelial cell-specific molecule 1, Endothelial cell-specific molecule 1 isoform a, ESM1

## PRODUCT SPECIFICATION

**Molecular Weight**
19.2 kDa (174aa)

**Concentration**
0.25mg/ml (determined by absorbance at 280nm)

**Formulation**
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

**Purity**
> 90% by SDS-PAGE

**Endotoxin level**
< 1 EU per 1ug of protein (determined by LAL method)

**Tag**
His-Tag

**Application**
SDS-PAGE

**Storage Condition**
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

**Description**
ESM1, also known as endothelial cell-specific molecule 1 isoform a, is a secreted cysteine-rich dermatan sulfate proteoglycan. This protein primarily expressed by endothelial cells within the vascular capillary network in the alveolar walls of the lung and also at lower level in kidney. The expression of it is upregulated by TNF-alpha, IL-beta or lipopolysaccharide and down-regulated by IFN-gamma. It plays roles on angiogenesis, sprouting, and

may have potent implications in lung endothelial cell-leukocyte interaction. Also, this protein has dermatan sulfate (DS) that is covalently attached to serine 137. It binds using DS chain to hepatocyte growth factor (HGF) to enhance HGF mitogenic activity. Genetically engineered cells overexpressing ESM1 has been shown to induce tumor formation, suggesting that it may be involved in the pathophysiology of tumor growth in vivo. Recombinant human ESM1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

**Amino acid Sequence**

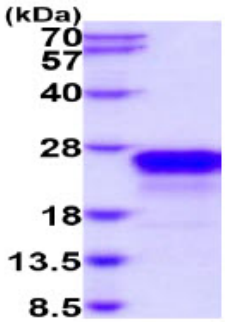
ADLWSNNYAV DCPQHCDSSE CKSSPRCKRT VLDDCGCCRV CAAGRGETCY RTVSGMDGMK CGPGLRCQPS NGEDPFGEEF GICKDCPYGT FGMDCRETCN CQSGICDRGT GKCLKFPFFQ YSVTKSSNRF VSLTEHDMAS GDGNIVREEV VKENAAGSPV MRKWLNPRHH HHHH

**General References**

Bechard D., et al, (2001) J. Biol. Chem. 276:48341-48349.
Scherpereel A., et al. (2003) Cancer Res. 63:6084

## DATA

**SDS-PAGE**




15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.