

## Human ESM1 protein, His tag

Cat. No. GTX00169-pro

**Applications** Functional Assay**Species** Human**Package**

10 µg

## Applications

## Application Note

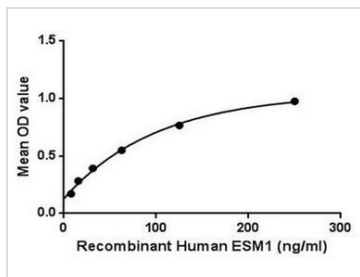
Endothelial cell-specific molecule 1 (ESM1) is a proteoglycan secreted by endothelial cells (primarily in the human lung and kidney tissues) and its mRNA expression is regulated by inflammatory cytokines. Endocan expression, which detected in various epithelia and adipocytes has been shown to be upregulated by vascular endothelial growth factor (VEGF), fibroblast growth factor 2 (FGF-2), TNF alpha, IL1 beta, or lipopolysaccharide and downregulated by IFN gamma. Genetically engineered cells overexpressing ESM1 induce tumor formation, implying that ESM1 might be involved in the pathophysiology of tumor growth in vivo. Besides, Lymphocyte Function Associated Antigen 1 Alpha (LFA1a) has been identified as an interactor of ESM1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human ESM1 and recombinant human LFA1a. Briefly, ESM1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to LFA1a-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti- ESM1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of of ESM1 and LFA1a was in a dose dependent manner.

**Observed MW (kDa)** 19 kDa.

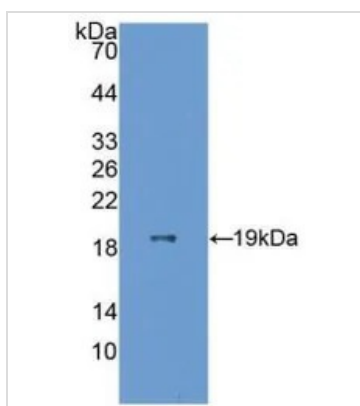
## Properties

**Form** Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Trp20~Arg184 (NP\_001129076.1)**Expression System** E. coli**Purity** > 90%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

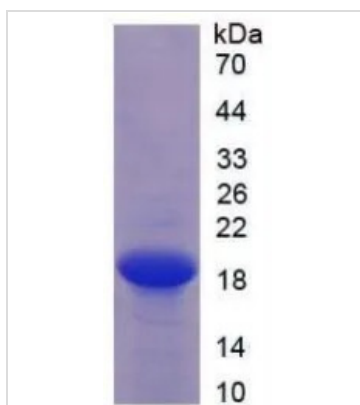
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**DATA IMAGES**

**GTx00169-pro Functional Assay Image**

Functional ELISA analysis of GTx00169-pro Human ESM1 protein which can bind immobilized LFA1a protein.


**GTx00169-pro Image**

WB analysis of GTx00169-pro Human ESM1 protein.


**GTx00169-pro Image**

SDS-PAGE analysis of GTx00169-pro Human ESM1 protein.



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