

## Product datasheet for **AP60002PU-N**

### ESM1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1-5 µg/ml. <b>Immunofluorescence:</b> 1/200. <b>Immunohistochemistry on Frozen sections:</b> 1:200.
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Highly pure (>95%) recombinant human Endocan/ESM1 (Trp19-Arg184) derived from <i>E. coli</i>
Specificity:	This antibody detects Endocan / ESM1.
Formulation:	5 mM PBS, pH 7.2 State: Purified State: Lyophilized purified Ig fraction
Reconstitution Method:	Centrifuge vial prior to opening. Restore in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Protein A chromatography
Conjugation:	Unconjugated
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.
Stability:	Shelf life: one year from despatch.
Gene Name:	endothelial cell specific molecule 1
Database Link:	<a href="#">Entrez Gene 11082 Human Q9NQ30</a>



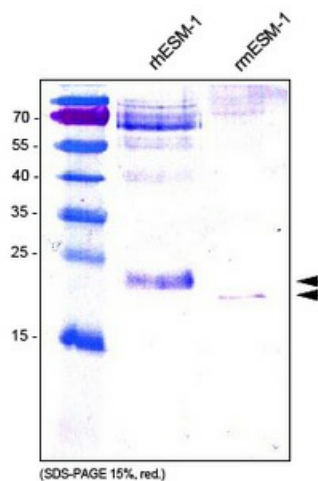
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**Background:**

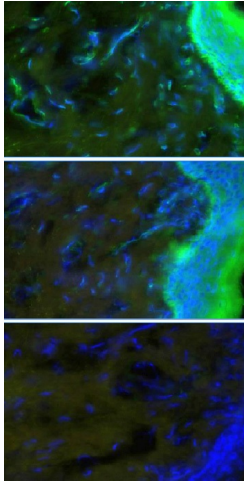
Endocan, also known as endothelial cell-specific molecule1 (ESM1), is a secreted cysteine-rich dermatan sulfate (DS) proteoglycan primarily expressed by endothelial cells within the vascular capillary network in kidney and in the alveolar walls of the lung. Endocan expression has also been detected in different epithelia and in adipocytes. The expression of endocan is up-regulated by TNF $\alpha$ , IL1 $\beta$  or lipopolysaccharide and down-regulated by IFN $\gamma$ . The mouse Endocan gene encodes a 184 amino acid (aa) residues precursor protein with a 19 aa hydrophobic signal peptide and a 165 aa mature region with 18 Cysteine residues. The DS chain is covalently attached to serine 137. Endocan has been shown to bind CD11a/CD18 integrin (also known as lymphocyte function-associated antigen1, LFA1) on human lymphocytes, monocytes and Jurkat cells, inhibiting its binding to ICAM1 and reducing LFA1 mediated leukocyte activation. Endocan binds via its DS chain to hepatocyte growth factor (HGF) to enhance HGF mitogenic activity. Genetically engineered cells overexpressing Endocan has been shown to induce tumor formation, suggesting that Endocan may be involved in the pathophysiology of tumor growth in vivo. Circulating Endocan can be detected in the serum from healthy subjects.

**Synonyms:**

Endothelial cell-specific molecule 1, Endocan

**Product images:**

Western analysis of anti-human Endocan/ESM1. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions. Lane 1: MWM (kDa), Lane 2: rh ESM1, Lane 3: rm ESM1.



Immunofluorescence staining of cryosections of unfixed human foreskin with anti-human Endocan/ESM1. (dilution 1/100) and counter staining of nuclei with DAPI.;Note specific green Endocan/ESM1 signals in epidermis, connective tissue cells and vessels.;The experiment was performed by the research group of Prof. Dr. J. Wilting and Dr. K. Buttler, University Medicine Göttingen, Germany.