Anti-mouse Endocan/ESM-1

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**103-PA44**
Size:	200 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits pre-immunized with highly pure (>95%) recombinant mouse Endocan/ESM1 (Trp19-Arg184) derived from E. coli.

Target Background

Synonyms:	Endothelial cell-specific molecule-1, endocan

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 TNFα, IL1β or lipopolysaccharide and down-regulated by IFNγ. 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 LFA1mediated 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.

References

1. Lassalle P et al, J Biol Chem 271:20458, 1996
2. Bechard D et al, J Vasc Res 37:417, 2000
3. Wellner M et al, Horm Metab Res 35:217, 2003
4. Bechard D et al, J Biol Chem 276:48341, 2001
5. Bechard D et al, J Immunol 167:3099, 2001
6. Scherpereel A et al, Cancer Res 63:6084, 2003

Database References Antigen

Protein RefSeq:	NP_076101.1
Uniprot ID:	Q9QYY7
mRNA RefSeq:	NM_023612.3

Product Specifications

Species reactivity	mouse
Clone/Ab feature	rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant mouse ESM-1 (RT #M30-062)
Formulation	lyophilized
Buffer	5 mM PBS, pH 7.2

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot: Use 1-5 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!

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Handling/Applications

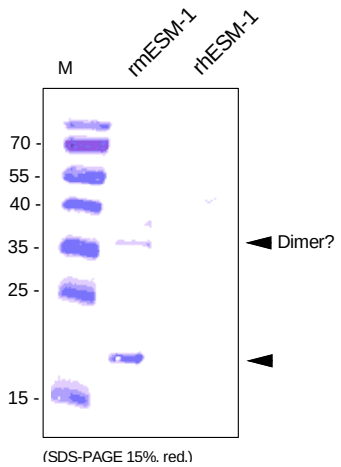

Figure 1. Western Analysis of anti-mouse Endocan/ESM-1. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions. Lane 1: MWM (kDa); lane 2: rm ESM-1; lane 3: rh ESM-1