



20150116ML

Anti-Mouse Endocan [ESM-1] (#5J44)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

Cat.-no.:	103-M221
Size:	100 µg
Lot. No.:	According to product label

Preparation: This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a rat immunized with purified mouse recombinant Endocan. The IgG2 fraction of the culture supernatant was purified by Protein A/G affinity chromatography.

Target Background

Synonyms (Target):	Esm1; ESM-1; AV004503; 0610042H23Rik
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Endocan (endothelial cell proteoglycan), also known as endothelial cell specific molecule 1 (ESM-1), is a 50 kDa monomeric, secreted, cysteine-rich proteoglycan identified initially in endothelial cells of the kidney and lung. Mouse Endocan is synthesized as a 184 amino acid (aa) precursor that contains a 21 aa signal sequence and a 20 kDa, 163 aa mature region. The N-terminal 2/3 of the molecule contains 18 cysteine residues and there are no potential N-linked glycosylation sites. Based on human Endocan, there are at least two potential O-linked glycosylation sites, one of which will likely be utilized on Ser at position # 136 of the mature molecule. The posttranslational modification is approximately 30 kDa in size. It consists of a single dermatan sulfate chain that contains 40 sulfated N-acetyl galactosamine with iduronate. This chain is suggested to bind HGF and contribute to HGF mitogenic activity. Mature mouse Endocan shares 96% and 74% aa identity with rat and human Endocan, respectively. In human, there is a potential for an alternate splice variant. It shows a deletion of aa 82-131, a range which would not remove the dermatan sulfate attachment site. It is not known if such a splice form exists in mouse. Endocan is expressed by endothelial cells, adipocytes, bronchial epithelium and distal renal tubular epithelium. It is upregulated by TNF α and VEGF, and is known to bind to LFA1 (integrin α L β 2) on the surface of PBMCs, blocking LFA1 interaction with ICAM1. Normal circulating levels of Endocan are approximately 1 ng/mL.

Database References Target

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

Product Specifications

Host	Rat
Reactivity against	Mouse
Clonality	Monoclonal Antibody
Clone	(#5J44)
Isotype	IgG2
Purification	Protein G/A chromatography
Antigen	recombinant mouse Endocan
Formulation	lyophilized
Reconstitution buffer	PBS (sterile)

Reconstitution: Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

Stability: Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

Remarks: This antibody detects mouse Endocan Western blotting.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

Applications

The antibody can be used within the following applications:

WB

Recommended usage:

WB: 1:500-1000

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