

## Murine ESM-1 / Endocan His-Tag

Synonyms: Esm1, ESM-1, AV004503, 0610042H23Rik, endothelial cell-specific molecule 1

*PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING*

Size	Order #	Lot #	Expiry Date
50 µg	4063.962.050		

Please enquire for bulk quantities and other vial sizes

### Description

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 human 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. In patients with lung cancer or acute and severe sepsis, elevated Endocan concentrations have been reported.

- **Source** Insect cells
- **Purity**  $\geq$  95 % (SDS-PAGE, silver stained)

### Biological Activity

Testing in Progress.

### Reconstitution

Mouse Endocan/ESM-1 should be reconstituted in water to a concentration of 0.1 mg/ml. This solution can be diluted in water or other buffer solutions or stored at -20 °C.

### Amino Acid Sequence

WSAKYAVDCP EHCDKTECRS SLRCKRTVLD DCGCCQVCAA GPGETCYRTV SGMDGVKCGP GLKCHFYSSE  
DDFGDEFEGIC KDCPYGTFGM ECKETCNCQS GICDRVGTGRC LDFPFFQYAA AKSPSRTSAS HTERDSASGD  
GNAVREEIGE GNAARPSVMK WLNPRTRHHH HHH

**Usage:** For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

\*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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