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## Product Data Sheet

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Product Name: ESM1 Human  
 Cat. No.: GP23420  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Endothelial cell-specific molecule 1; ESM-1; ESM1; endocan.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSWSNNYAV DCPQHCDSE CKSSPRCKRT VLDDCGCCRV CAAGRGETCY RTVSGMDGMK CGPGLRCQPS NGEDPFGEEF GICKDCPYGT FGMDCRETEN CQSGICDRGT GKCLKPFFQ YSVTKSSNRF VSLTEHDMAS GDGNIVREEV VKENAAGSPV MRKWLNPR.		
Formulation	ESM1 protein solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 2M Urea and 10% glycerol.		

### Introduction

Endothelial cell-specific molecule 1 (ESM1) is a proteoglycan secreted by endothelial cells (mostly in the human lung and kidney tissues) and its mRNA expression is regulated by inflammatory cytokines. ESM1 has potent implications in lung endothelial cell-leukocyte interactions. In addition, ESM1 expression is detected in various epithelia and in adipocytes. ESM1 is involved in angiogenesis and it also promotes angiogenic sprouting. ESM1 expression is upregulated by 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.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

ESM1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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chain containing 188 amino acids (20-184 a.a.) and having a molecular mass of 20.5kDa.ESM1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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