



# Recombinant Protein Technical Manual

## Recombinant Human ESM1/Endocan Protein (His Tag)(Active)

RPES1168

### Product Data:

**Product SKU:** RPES1168

**Size:** 20µg

**Species:** Human

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** NP\_008967.1

### Protein Information:

**Molecular Mass:** 19.6 kDa

**AP Molecular Mass:** 23-27 kDa

**Tag:** C-His

**Bio-activity:** Measured by the ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. When  $8 \times 10^4$  cells/well are added to ESM1-His coated plates (10µg/mL, 100 µL/well), approximately 48% will adhere after 30 minutes at 37°C.

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 8.0

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** endocan

## Immunogen Information:

**Sequence:** Met 1-Arg184

## Background:

ESM1 is a secreted protein which is produced by adipocytes. It has been noticed that ESM1 may play some role in obesity-associated vascular disease since circulating ESM levels are reduced in the overweight and obese. ESM1 is mainly expressed in the endothelial cells in human lung and kidney tissues. The expression of ESM1 gene is regulated by cytokines, suggesting that it may play a role in endothelium-dependent pathological disorders. Recently, ESM1 has been described as a specific biomarker of tip cells during neoangiogenesis. Its expression has been shown to be increase in presence of pro-angiogenic growth factors such as VEGF or FGF-2. In hypervascularized cancers, overexpression of endocan has been detected by immunohistochemistry using monoclonal antibodies against ESM1.