

## Recombinant Human ESM- 1 Protein(His Tag)

**Catalog Number:** PDMH100352

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

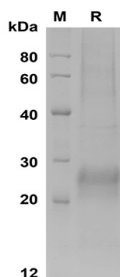
### Description

<b>Species</b>	Human
<b>Source</b>	Mammalian-derived Human ESM-1 protein Trp20-Arg184, with an C-terminal His
<b>Calculated MW</b>	18.0 kDa
<b>Observed MW</b>	23-27 kDa
<b>Accession</b>	Q9NQ30
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Human ESM- 1 proteins, 2µg/lane of Recombinant Human ESM- 1 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 23-27 kDa

### Background

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Rev. V1.1

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-1 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.