# abcam

## Product datasheet

# Human ESM1 ELISA Kit (Endocan) ab213776

**5 References** 1 Image

Overview

Product name Human ESM1 ELISA Kit (Endocan)

**Detection method**Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
1	16	90pg/ml	7.11	= 7.9%
2	16	269pg/ml	14.79	= 5.5%
3	16	832pg/ml	45.76	= 5.5%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	96pg/ml	8.44	= 8.8%
2	24	293pg/ml	19.33	= 6.6%
3	24	860pg/ml	54.18	= 6.3%

Sample type Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma

Assay type Sandwich (quantitative)

**Sensitivity** < 10 pg/ml

**Range** 31.2 pg/ml - 2000 pg/ml

Assay time 3h 30m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

**Product overview** The Human ESM1 Enzyme-Linked Immunosorbent Assay (ELISA) kit (Endocan) (ab213776) is

designed for the quantitative measurement of Human ESM1 in cell culture supernatants, cell

lysates, serum and plasma (heparin, EDTA).

The ELISA kit is based on standard sandwich enzyme-linked immune-sorbent assay technology.

A polycloncal antibody from goat specific for ESM1/Endocan has been pre-coated onto 96-well plates. Standards (Expression system for standard: NSO; Immunogen sequence: W20-R184) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for ESM1/Endocan is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with PBS or TBS buffer. HRP substrate TMB is used to visualize HRP enzymatic reaction. TMB is catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human ESM1/Endocan amount of sample captured in plate.

**Notes** 

Endothelial cell-specific molecule 1, also known as Endocan, is a protein that in humans is encoded by the ESM1 gene. This gene encodes a secreted protein which is mainly expressed in the endothelial cells in human lung and kidney tissues. The expression of this gene is regulated by cytokines, suggesting that it may play a role in endothelium-dependent pathological disorders. The transcript contains multiple polyadenylation and mRNA instability signals. ESM1 has been described as a specific biomarker of tip cells during neoangiogenesis by independent teams. Its expression has been shown to be increased in the presence of pro-angiogenic growth factors such as VEGF (vascular endothelial growth factor) or FGF-2 (fibroblast growth factor 2).

**Platform** 

Pre-coated microplate (12 x 8 well strips)

#### **Properties**

#### Storage instructions

Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml	1 x 12ml
Adhesive Plate Seal		4 units	4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml	1 x 12ml
Anti-Human ESM1 coated Microplate (12 x 8 wells)		1 unit	1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl	1 x 100µl
Biotinylated anti- Human ESM1 antibody		1 x 100µl	1 x 100µl
Lyophilized recombinant Human ESM1 standard		2 vials	2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml	1 x 10ml
Wash Buffer (25X)		1 x 20ml	1 x 20ml

**Function** 

May have potent implications in lung endothelial cell-leukocyte interactions.

Tissue specificity

Expressed in lung, on the vascular capillary network within alveolar walls, and also at lower level in kidney.

Sequence similarities C

Contains 1 IGFBP N-terminal domain.

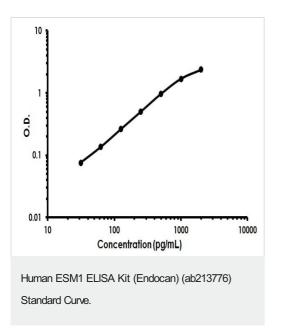
Post-translational modifications

May contain intrachain disulfide bonds.

Cellular localization

Secreted.

#### **Images**



Human ESM1 ELISA Kit (Endocan) (ab213776) Standard Curve.

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