



Human endothelial cell-specific molecule 1(ESM-1) ELISA Kit

Product Code	CSB-E16530h
Abbreviation	ESM1
Uniprot No.	Q9NQ30
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenatess.
Detection Range	3.12 ng/ml-200 ng/ml.
Sensitivity	0.78 ng/ml
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Tags & Cell Markers
Gene Names	ESM1
Tag Info	quantitative
Protein Description	Sandwich
Component	A micro ELISA plate ---The 96-well plate has been pre-coated with an anti-human ESM1 antibody. This dismountable microplate can be divided into 12 x 8 strip plates. Two vials lyophilized standard ---Dilute a bottle of the standard at dilution series, read the OD values, and then draw a standard curve. One vial Biotin-labeled ESM1 antibody (100 x concentrate) (120 µl/bottle) ---Act as the detection antibody. One vial HRP-avidin (100 x concentrate) (120 µl/bottle) ---Bind to the detection antibody and react with the TMB substrate to make the solution chromogenic. One vial Biotin-antibody Diluent (15 ml/bottle) ---Dilute the Biotin-antibody. One vial HRP-avidin Diluent (15 ml/bottle) ---Dilute the HRP-avidin solution. One vial Sample Diluent (50 ml/bottle)---Dilute the sample to an appropriate concentration. One vial Wash Buffer (25 x concentrate) (20 ml/bottle) ---Wash away unbound or free substances. One vial TMB Substrate (10 ml/bottle) ---Act as the chromogenic agent. TMB interacts with HRP, eliciting the solution turns blue. One vial Stop Solution (10 ml/bottle) ---Stop the color reaction. The solution color immediately turns from blue to yellow.



Four Adhesive Strips (For 96 wells) --- Cover the microplate when incubation.
An instruction manual

Description

The Human endothelial cell-specific molecule 1 (ESM1) ELISA kit enables quantification of human DEFA1 in solution, e.g. in serum, plasma, and tissue homogenates. The product is more flexible to set up the ELISA assay. ESM1, also known as endocan, is a dermatan sulphate proteoglycan expressed and secreted primarily by the endothelial cells in the lung and kidneys. ESM1 expression in endothelial and epithelial cells is upregulated by TNF- α , IL-1 β , and VEGF, but downregulated by IL-4 and IFN- γ . Plasma ESM1 levels are increased in patients with inflammatory disorders like sepsis, suggesting that ESM1 could be a potential biomarker for endothelial activation or dysfunction. EMS1 is frequently overexpressed in many cancer types and is related to tumor growth and angiogenesis during tumor progression. Tung-Wei Hung etc. proposed that overexpression of ESM1 promotes cell migration and renal fibrosis progression by modulating the endothelial-to-mesenchymal transition (EndoMT) pathways in vitro and in vivo.

The assay is based on the Sandwich ELISA mechanism and enzyme-substrate chromogenic reaction. The intensity of the color is proportional to the ESM1 content in the sample. This kit has been verified with nanogram-level of sensitivity, high specificity, precision, good linearity, high recovery, and lot-to-lot consistency. More validation details are described in the product instructions.

Msds

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