Datasheet for ABIN2859330

Cadherin 5 ELISA Kit

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Overview

Quantity:	96 tests
Target:	Cadherin 5 (CDH5)
Binding Specificity:	AA 46-599
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	312-20.000 pg/mL
Minimum Detection Limit:	312 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse VE-Cadherin/CD144
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: D46-Q599
Specificity:	Expression system for standard: NSO Immunogen sequence: D46-Q599
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	Cadherin 5 (CDH5)
Alternative Name:	CDH5 (CDH5 Products)
Background:	Protein Function: Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells, cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play an important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. Acts in concert with KRIT1 to establish and maintain correct endothelial cell polarity and vascular lumen. These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B. Required for activation of PRKCZ and for localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction. . Background: Cadherin 5, type 2 or VE-cadherin also known as CD144, is encoded by the gene CDH5. It is a classical cadherin from the cadherin superfamily. This gene is mapped to mouse chromosome 8. The encoded protein is a calcium-dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. Functioning as a classic cadherin by imparting to cells the ability to adhere in a homophilic manner, the protein may play an important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It has found that PECAM1, VE-cadherin and VEGFR2 together are sufficient to confer responsiveness to flow in heterologous cells. Synonyms: Cadherin-5,Vascular endothelial cadherin,VE-cadherin,CD144,Cdh5, Full Gene Name: Cadherin-5 Cellular Localisation: Cell junction . Cell membrane, Single-pass type I membrane protein . Found at cell-cell boundaries and probably at cell-matrix boundaries. KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions (By similarity)..
Gene ID:	12562
UniProt:	P55284

Target Details

Pathways:	Cell-Cell Junction Organization, Signaling Events mediated by VEGFR1 and VEGFR2

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Plate:	Pre-coated
Protocol:	mouse VE-Cadherin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for VE-Cadherin has been precoated onto 96-well plates. Standards(NSO, D46-Q599) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for VE-Cadherin is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was 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 mouse VE-Cadherin amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 20,000pg/mL, 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL mouse VE-Cadherin standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse VE-Cadherin standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 2.5, Standard deviation: 0.155, CV(%): 6.2 • Sample 2: n=16, Mean(ng/ml): 6.6, Standard deviation: 0.383, CV(%): 5.8 • Sample 3: n=16, Mean(ng/ml): 10.4, Standard deviation: 0.489, CV(%): 4.7, • Sample 1: n=24, Mean(ng/ml): 3.2, Standard deviation: 0.237, CV(%): 7.4 • Sample 2: n=24, Mean(ng/ml): 7.2, Standard deviation: 0.425, CV(%): 5.9 • Sample 3: n=24, Mean(ng/ml): 12.4, Standard deviation: 0.645, CV(%): 5.2
Restrictions:	For Research Use only

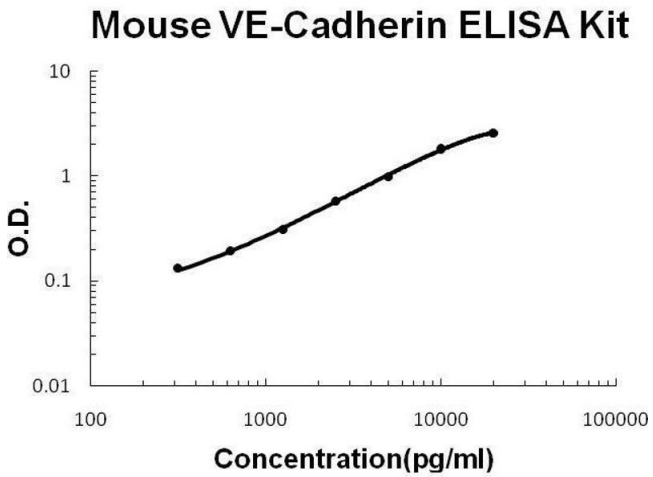
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C

Handling

Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Images



ELISA

Image 1. Mouse VE-Cadherin/CD144 PicoKine ELISA Kit standard curve