Datasheet for ABIN411374

E-cadherin ELISA Kit

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Overview

Quantity:	96 tests
Target:	E-cadherin (CDH1)
Binding Specificity:	AA 155-707
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human E-Cadherin
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Saliva, Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: D155-I707
Specificity:	Expression system for standard: NSO Immunogen sequence: D155-I707
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<15pg/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:	E-cadherin (CDH1)
Alternative Name:	CDH1 (CDH1 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. CDH1 is involved in mechanisms regulating cell-cell adhesions, mobility and proliferation of epithelial cells. Has a potent invasive suppressor role. It is a ligand for integrin alpha-E/beta-7. . Background: E-Cadherin, also called Cadherin 1(CDH1), Uvomorulin or calcium-dependent ashesion protein, epithelial. E-cadherin is a Ca(2+)-dependent epithelial cell-cell adhesion molecule. Downregulation of E-cadherin expression often correlates with strong invasive potential and poor prognosis of human carcinomas. The gene spans a region of approximately 100 kb, and its location on chromosome 16q22.1. It contains 16 exons and a 65-kb-long intron 2. E-cadherin gene mutations may contribute to the development of diffusely growing gastric carcinomas. E-cadherin plays a central part in the process of epithelial morphogenesis and acts as a strong invasion suppressor in experimental tumor cell systems. The standard product used in this kit is recombinant gene expression with the molecular mass of 120KDa. Synonyms: Cadherin-1,CAM 120/80,Epithelial cadherin,E-cadherin,Uvomorulin,CD324,E-Cad/CTF1,E-Cad/CTF2,E-Cad/CTF3,CDH1,CDHE, UVO, Full Gene Name: Cadherin-1 Cellular Localisation: Cell junction. Cell membrane, Single-pass type I membrane protein. Endosome. Golgi apparatus, trans-Golgi network. Colocalizes with DLGAP5 at sites of cell-cell contact in intestinal epithelial cells. Anchored to actin microfilaments through association with alpha-, beta- and gamma- catenin. Sequential proteolysis induced by apoptosis or calcium influx, results in translocation from sites of cell-cell contact to the cytoplasm. Colocalizes with RAB11A endosomes during its transport from the Golgi apparatus to the plasma membrane.
Gene ID:	999

Target Details

UniProt:	P12830
Pathways:	WNT Signaling, Sensory Perception of Sound, Cell-Cell Junction Organization, Tube Formation

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.
Comment:	Sequence similarities: Contains 5 cadherin domains. Tissue Specificity: Non-neural epithelial tissues.
Plate:	Pre-coated
Protocol:	human E-Cadherin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for E-Cadherin has been precoated onto 96-well plates. Standards(NSO, D155-I707) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for E-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 human E-Cadherin amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 313pg/mL, 156pg/mL human E-Cadherin standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). dd 0.1 mL of each properly diluted sample of human cell culture supernates, serum, plasma(heparin), saliva or urine to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human E-Cadherin standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 1.05, Standard deviation: 0.059, CV(%): 5.6 • Sample 2: n=16, Mean(ng/ml): 3.18, Standard deviation: 0.188, CV(%): 5.9 • Sample 3: n=16, Mean(ng/ml): 6.37, Standard deviation: 0.401, CV(%): 6.3, • Sample 1: n=24, Mean(ng/ml): 1.12, Standard deviation: 0.068, CV(%): 6.1 • Sample 2: n=24, Mean(ng/ml): 3.61, Standard deviation: 0.235, CV(%): 6.5 • Sample 3: n=24, Mean(ng/ml): 7.19, Standard deviation: 0.518, CV(%): 7.2
Restrictions:	For Research Use only

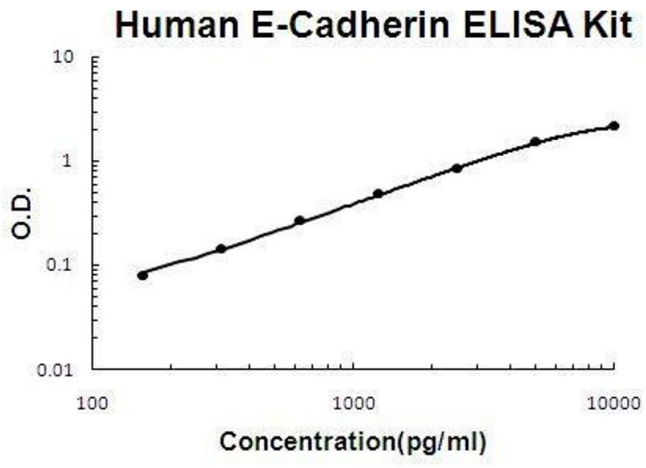
Handling

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

Publications

Product cited in:	Llauradó, Megia, Cano, Giménez-Palop, Simón, González-Sastre, Berlanga, Fernández-Veledo, Vendrell, González-Clemente: "FGF-23/Vitamin D Axis in Type 1 Diabetes: The Potential Role of Mineral Metabolism in Arterial Stiffness." in: **PLoS ONE**, Vol. 10, Issue 10, pp. e0140222, (2016) (PubMed). Jalaly, Sharifi, Faramarzi, Nematollahi, Rafieian-kopaei, Amiri, Moattar: "Comparison of the effects of Crataegus oxyacantha extract, aerobic exercise and their combination on the serum levels of ICAM-1 and E-Selectin in patients with stable angina pectoris." in: **Daru : journal of Faculty of Pharmacy, Tehran University of Medical Sciences**, Vol. 23, pp. 54, (2016) (PubMed).

Images



ELISA

Image 1. Human E-Cadherin PicoKine ELISA Kit standard curve