

Datasheet for ABIN2859292

EpCAM ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	EpCAM (EPCAM)
Binding Specificity:	AA 24-265
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	93.7-6000 pg/mL
Minimum Detection Limit:	93.7 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human EPCAM
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: Q24-K265
Specificity:	Expression system for standard: NSO Immunogen sequence: Q24 - K265
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:	EpCAM (EPCAM)
Alternative Name:	EPCAM (EPCAM Products)
Background:	<p>Protein Function: May act as a physical homophilic interaction molecule between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium for providing immunological barrier as a first line of defense against mucosal infection. Plays a role in embryonic stem cells proliferation and differentiation. Up-regulates the expression of FABP5, MYC and cyclins A and E. .</p> <p>Background: Epithelial cell adhesion molecule (EpCAM) is a transmembrane glycoprotein mediating Ca²⁺-independent homotypic cell-cell adhesion in epithelia. Also it is involved in cell signaling, migration, proliferation, and differentiation. Additionally, EpCAM has oncogenic potential via its capacity to upregulate c-myc, e-fabp, and cyclins A & E. Since it is expressed exclusively in epithelia and epithelial-derived neoplasms, EpCAM can be used as diagnostic marker for various cancers. It appears to play a role in tumorigenesis and metastasis of carcinomas, so it can also act as a potential prognostic marker and as a potential target for immunotherapeutic strategies.</p> <p>Synonyms: Epithelial cell adhesion molecule,Ep-CAM,Adenocarcinoma-associated antigen,Cell surface glycoprotein Trop-1,Epithelial cell surface antigen,Epithelial glycoprotein,EGP,Epithelial glycoprotein 314,EGP314,hEGP314,KS 1/4 antigen,KSA,Major gastrointestinal tumor-associated protein GA733-2,Tumor-associated calcium signal transducer 1,CD326,EPCAM,GA733-2, M1S2, M4S1, MIC18, TACSTD1, TROP1,</p> <p>Full Gene Name: Epithelial cell adhesion molecule</p> <p>Cellular Localisation: Lateral cell membrane, Single-pass type I membrane protein . Cell junction, tight junction . Colocalizes with CLDN7 at the lateral cell membrane and tight junction..</p>
Gene ID:	4072
UniProt:	P16422

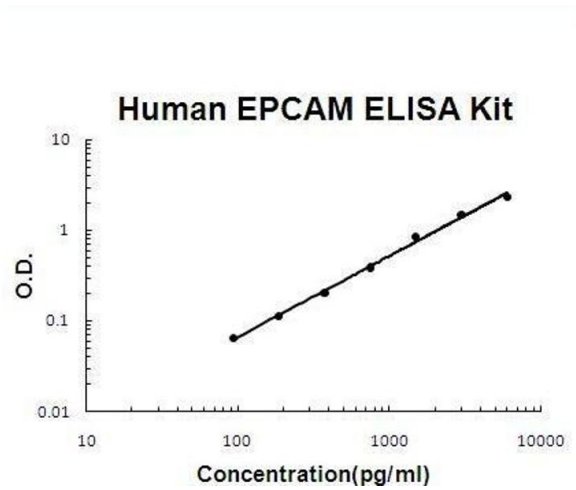
Application Details

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: Belongs to the EPCAM family. Contains 1 thyroglobulin type-1 domain. Tissue Specificity: Highly and selectively expressed by undifferentiated rather than differentiated embryonic stem cells (ESC). Levels rapidly diminish as soon as ESC's differentiate (at protein levels). Expressed in almost all epithelial cell membranes but not on mesodermal or neural cell membranes. Found on the surface of adenocarcinoma. .
Plate:	Pre-coated
Protocol:	human EPCAM ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for EPCAM has been precoated onto 96-well plates. Standards(NSO, Q24 - K265) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for EPCAM 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 EPCAM amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 6000pg/mL, 3000pg/mL, 1500pg/mL, 750pg/mL, 375pg/mL, 187.5pg/mL, 93.7pg/mL human EPCAM 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 human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human EPCAM standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 475, Standard deviation: 16.15, CV(%): 3.4• Sample 2: n=16, Mean(pg/ml): 1837, Standard deviation: 77.15, CV(%): 4.2• Sample 3: n=16, Mean(pg/ml): 3642, Standard deviation: 193.03, CV(%): 5.3,• Sample 1: n=24, Mean(pg/ml): 531, Standard deviation: 24.43, CV(%): 4.6• Sample 2: n=24, Mean(pg/ml): 2400, Standard deviation: 136.8, CV(%): 5.7• Sample 3: n=24, Mean(pg/ml): 4583, Standard deviation: 297.9, CV(%): 6.5
Restrictions:	For Research Use only
Handling	
Handling Advice:	Avoid multiple freeze-thaw cycles.

Handling

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

Images



ELISA

Image 1. Human EPCAM PicoKine ELISA Kit standard curve