

Datasheet for ABIN1672890

CD166 ELISA Kit**1** Image[Go to Product page](#)

Overview

Quantity:	96 tests
Target:	CD166 (ALCAM)
Binding Specificity:	AA 28-526
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	312-20000 pg/mL
Minimum Detection Limit:	312 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human ALCAM
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: W28-A526
Specificity:	Expression system for standard: NSO Immunogen sequence: W28-A526
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:	CD166 (ALCAM)
Alternative Name:	ALCAM (ALCAM Products)
Background:	<p>Protein Function: Cell adhesion molecule that binds to CD6. Involved in neurite extension by neurons via heterophilic and homophilic interactions. May play a role in the binding of T- and B-cells to activated leukocytes, as well as in interactions between cells of the nervous system.</p> <p>Background: CD166 antigen is a 100-105 kD typeI transmembrane glycoprotein that is a member of the immunoglobulin superfamily of proteins. In humans it is encoded by the ALCAM gene. The gene was mapped to human chromosome 3q13.1-q13.2 by fluorescence in situ hybridization of cDNA probes to metaphase chromosomes. It is also called CD166(cluster of differentiation 166), MEMD, SC-1/DM-GRASP/BEN in the chicken, and KG-CAM in the rat. It is expressed on activated T cells, activated monocytes, epithelial cells, fibroblasts, neurons, melanoma cells, and also in sweat and sebaceous glands. CD166 protein expression is reported to be upregulated in a cell line deriving from a metastasizing melanoma. CD166 plays an important role in mediating adhesion interactions between thymic epithelial cells and CD6+ cells during intrathymic T cell development. Recently, CD166 has also been used as a potential cancer stem cell marker.</p> <p>Synonyms: CD166 antigen,Activated leukocyte cell adhesion molecule,CD166,ALCAM,MEMD,</p> <p>Full Gene Name: CD166 antigen</p> <p>Cellular Localisation: Membrane, Single-pass type I membrane protein.</p>
Gene ID:	214
UniProt:	Q13740

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 3 Ig-like C2-type (immunoglobulin-like) domains.

Application Details

Tissue Specificity: Spleen, placenta, liver, and weakly in liver. Expressed by activated T-cells, B-cells, monocytes and thymic epithelial cells. Expressed by neurons in the brain. Restricted expression in tumor cell lines. Preferentially expressed in highly metastasizing melanoma cell lines. .

Plate: Pre-coated

Protocol: human ALCAM ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for ALCAM has been precoated onto 96-well plates. Standards(NSO, W28-A526) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for ALCAM 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 ALCAM amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 20000pg/mL, 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL human ALCAM 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. We recommend that each human ALCAM standard solution and each sample is measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(ng/ml): 3.07, Standard deviation: 0.150, CV(%): 4.9
- Sample 2: n=16, Mean(ng/ml): 6.42, Standard deviation: 0.327, CV(%): 5.1
- Sample 3: n=16, Mean(ng/ml): 13.26, Standard deviation: 0.756, CV(%): 5.7,
- Sample 1: n=24, Mean(ng/ml): 3.58, Standard deviation: 0.218, CV(%): 6.1
- Sample 2: n=24, Mean(ng/ml): 7.04, Standard deviation: 0.444, CV(%): 6.3
- Sample 3: n=24, Mean(ng/ml): 14.98, Standard deviation: 0.959, CV(%): 6.4

Restrictions: For Research Use only

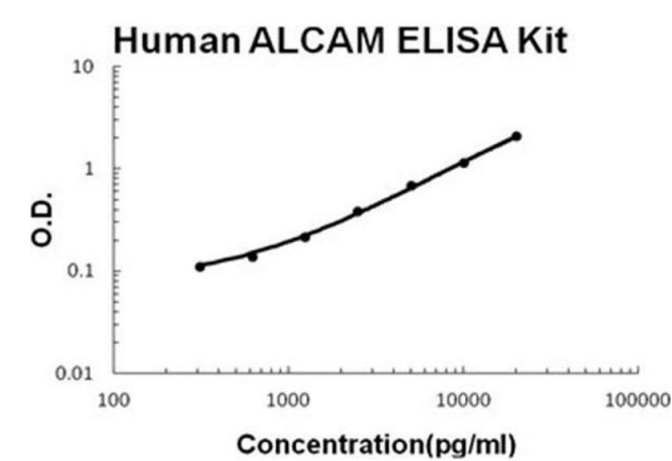
Handling

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



ELISA

Image 1. Human ALCAM PicoKine ELISA Kit standard curve