

Datasheet for ABIN2859320
CD166 ELISA Kit



[Go to Product page](#)

1 Image

Overview

Quantity:	96 tests
Target:	CD166 (ALCAM)
Binding Specificity:	AA 28-527
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse 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-K527
Specificity:	NSO, W28-K527
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

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 mediates both heterotypic cell-cell contacts via its interaction with CD6, as well as homotypic cell-cell contacts. Promotes T-cell activation and proliferation via its interactions with CD6 (By similarity). Contributes to the formation and maturation of the immunological synapse via its interactions with CD6 (By similarity). Mediates homotypic interactions with cells that express ALCAM (PubMed:24740813). Mediates attachment of dendritic cells onto endothelial cells via homotypic interaction. Inhibits endothelial cell migration and promotes endothelial tube formation via homotypic interactions (PubMed:23169771). Required for normal organization of the lymph vessel network (PubMed:23169771). Required for normal hematopoietic stem cell engraftment in the bone marrow (PubMed:24740813). Plays a role in hematopoiesis, required for normal numbers of hematopoietic stem cells in bone marrow (PubMed:25730656). Promotes in vitro osteoblast proliferation and differentiation (PubMed:25730656). Promotes neurite extension, axon growth and axon guidance, axons grow preferentially on surfaces that contain ALCAM (By similarity). Mediates outgrowth and pathfinding for retinal ganglion cell axons (PubMed:15345243).</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 ,BEN ,Protein DM-GRASP ,CD166,Alcam,</p>

Target Details

Full Gene Name: CD166 antigen

Cellular Localisation: Cell membrane, Single-pass type I membrane protein . Cell projection, axon . Cell projection, dendrite . Detected at the immunological synapse, i.e, at the contact zone between antigen-presenting dendritic cells and T-cells. Colocalizes with CD6 and the TCR/CD3 complex at the immunological synapse..

Gene ID: 11658

UniProt: [Q61490](#)

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:	Tissue Specificity: Detected on brain motor neurons, in differentiating retinal ganglion cells and in adult retina (PubMed:15345243). Detected on leukocytes and on lymphatic endothelial cells (PubMed:23169771). Detected in spleen B cells and T-cells (at protein level) (PubMed:9209500). Detected in adult brain and embryonic spinal cord (PubMed:15345243). Expressed at high levels in the brain, and lung, and at lower levels in the liver, and the kidney, as well as by activated leukocytes (PubMed:9209500). .
Plate:	Pre-coated
Protocol:	mouse ALCAM ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for ALCAM has been precoated onto 96-well plates. Standards(NSO, W28-K527) 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 mouse ALCAM amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL mouse 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 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 ALCAM standard solution and each sample be measured in duplicate.

Application Details

Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(ng/ml): 0.57, Standard deviation: 0.029, CV(%): 5.1• Sample 2: n=16, Mean(ng/ml): 2.33, Standard deviation: 0.086, CV(%): 3.7• Sample 3: n=16, Mean(ng/ml): 4.25, Standard deviation: 0.136, CV(%): 3.2,• Sample 1: n=24, Mean(ng/ml): 0.68, Standard deviation: 0.058, CV(%): 8.6• Sample 2: n=24, Mean(ng/ml): 2.74, Standard deviation: 0.17, CV(%): 6.2• Sample 3: n=24, Mean(ng/ml): 4.61, Standard deviation: 0.244, CV(%): 5.3
------------------	---

Restrictions:	For Research Use only
---------------	-----------------------

Handling

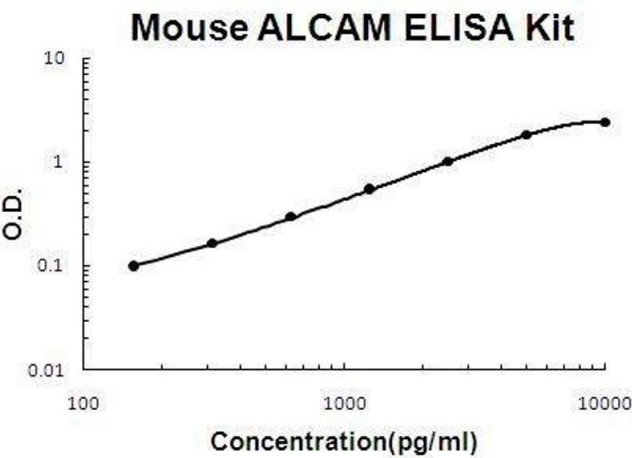
Handling Advice:	Avoid multiple freeze-thaw cycles.
------------------	------------------------------------

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
--------------	-----------

Images



ELISA

Image 1. Mouse ALCAM PicoKine ELISA Kit standard curve