

Datasheet for ABIN411279

ICAM1 ELISA Kit

1 Image

18 Publications



[Go to Product page](#)

Overview

Quantity:	96 tests
Target:	ICAM1
Binding Specificity:	AA 28-480
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 ICAM-1
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: Q28-E480
Specificity:	Expression system for standard: NSO Immunogen sequence: Q28-E480
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: ICAM1

Alternative Name: ICAM1 ([ICAM1 Products](#))

Target Type: Viral Protein

Background: Protein Function: ICAM proteins are ligands for the leukocyte adhesion protein LFA-1 (integrin alpha-L/beta-2). During leukocyte trans- endothelial migration, ICAM1 engagement promotes the assembly of endothelial apical cups through ARHGEF26/SGEF and RHOG activation. In case of rhinovirus infection acts as a cellular receptor for the virus. .

Background: Intercellular adhesion molecule-1(ICAM-1) is an integral membrane protein, a member of the immunoglobulin superfamily, and a ligand for lymphocyte function-associated(LFA) antigens, a beta 2 leukocyte integrin. The normal function of human intercellular adhesion molecule-1(ICAM-1) is to provide adhesion between endothelial cells and leukocytes after injury or stress. ICAM-1 binds to leukocyte function-associated antigen(LFA-1) or macrophage-1 antigen(Mac-1). ICAM-1 is found on leukocytes, fibroblasts, epithelial cells and endothelial cells and its expression is regulated by inflammatory cytokines. ICAM-1 has a tissue distribution similar to that of the major histocompatibility complex class II antigens and is likely to play a role in inflammatory responses.1

Synonyms: Intercellular adhesion molecule 1,ICAM-1,Major group rhinovirus receptor,CD54,ICAM1,

Full Gene Name: Intercellular adhesion molecule 1

Cellular Localisation: Membrane, Single-pass type I membrane protein.

Gene ID: 3383

UniProt: [P05362](#)

Pathways: [Cellular Response to Molecule of Bacterial Origin](#), [Regulation of Actin Filament Polymerization](#), [Carbohydrate Homeostasis](#), [Regulation of Leukocyte Mediated Immunity](#), [Thromboxane A2 Receptor Signaling](#)

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 immunoglobulin superfamily. ICAM family.
Plate:	Pre-coated
Protocol:	human ICAM-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for ICAM-1 has been precoated onto 96-well plates. Standards(NSO, Q28-E480) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for ICAM-1 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 ICAM-1 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, 312pg/mL, 156pg/mL human ICAM-1 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 ICAM-1 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(ng/ml): 1.41, Standard deviation: 0.048, CV(%): 3.4• Sample 2: n=16, Mean(ng/ml): 2.3, Standard deviation: 0.106, CV(%): 4.6• Sample 3: n=16, Mean(ng/ml): 5.2, Standard deviation: 0.265, CV(%): 5.1,• Sample 1: n=24, Mean(ng/ml): 1.33, Standard deviation: 0.047, CV(%): 6.4• Sample 2: n=24, Mean(ng/ml): 2.27, Standard deviation: 0.252, CV(%): 5.6• Sample 3: n=24, Mean(ng/ml): 5, Standard deviation: 0.314, CV(%): 4.1

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:

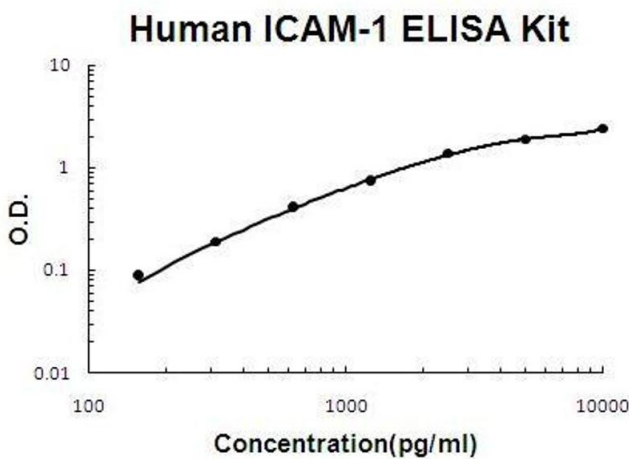
Martin, Koczera, Simons, Zechendorf, Hoeger, Marx, Schuerholz: "The Human Host Defense Ribonucleases 1, 3 and 7 Are Elevated in Patients with Sepsis after Major Surgery--A Pilot Study." in: **International journal of molecular sciences**, Vol. 17, Issue 3, pp. 294, (2016) ([PubMed](#)).

Kasiri, Beer, Nemec, Gruber, Pietkiewicz, Haider, Simader, Traxler, Schweiger, Janik, Taghavi, Gabriel, Mildner, Ankersmit: "Dying blood mononuclear cell secretome exerts antimicrobial activity." in: **European journal of clinical investigation**, Vol. 46, Issue 10, pp. 853-63, (2016) ([PubMed](#)).

Teran, Ramirez-Jimenez, Soid-Raggi, Velazquez: "Interleukin 16 and CCL17/thymus and activation-regulated chemokine in patients with aspirin-exacerbated respiratory disease." in: **Annals of allergy, asthma & immunology : official publication of the American College of Allergy, Asthma, & Immunology**, Vol. 118, Issue 2, pp. 191-196, (2016) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images



ELISA

Image 1. Human ICAM-1 PicoKine ELISA Kit standard curve