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Datasheet for ABIN2859230

CEACAM1 ELISA Kit

1 Image

Overview

Quantity:	96 tests
Target:	CEACAM1
Binding Specificity:	AA 35-428
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	312-20.000 pg/mL
Minimum Detection Limit:	312 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CEACAM1
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: Q35-G428
Specificity:	Expression system for standard: NSO Immunogen sequence: Q35-G428
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: CEACAM1

Alternative Name: CEACAM1 ([CEACAM1 Products](#))

Background: Background: CEACAM1, also known as CD66a (Cluster of Differentiation 66a), is a human glycoprotein encoded by a gene. This gene encodes a member of the carcinoembryonic antigen (CEA) gene family, which belongs to the immunoglobulin superfamily. CEACAM1 is mapped to 19q13.2 in human. The encoded protein was originally described in bile ducts of liver as biliary glycoprotein. Subsequently, it was found to be a cell-cell adhesion molecule detected on leukocytes, epithelia, and endothelia. The encoded protein mediates cell adhesion via homophilic as well as heterophilic binding to other proteins of the subgroup. Multiple cellular activities have been attributed to the encoded protein, including roles in the differentiation and arrangement of tissue three-dimensional structure, angiogenesis, apoptosis, tumor suppression, metastasis, and the modulation of innate and adaptive immune responses. Synonyms: Carcinoembryonic antigen-related cell adhesion molecule 1, Biliary glycoprotein 1, BGP-1, CD66a, CEACAM1, BGP, BGP1, Full Gene Name: Carcinoembryonic antigen-related cell adhesion molecule 1 Cellular Localisation: Isoform 1: Cell membrane, Single-pass type I membrane protein.

Gene ID: 634

UniProt: [P13688](#)

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. CEA family.

Plate: Pre-coated

Protocol: human CEACAM1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent

Application Details

assay technology. A monoclonal antibody from mouse specific for CEACAM1 has been precoated onto 96-well plates. Standards(NSO, Q35-G428) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CEACAM1 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 CEACAM1 amount of sample captured in plate.

Assay Procedure: Aliquot 0.1 mL per well of the 20,000pg/mL, 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL human CEACAM1 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 CEACAM1 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(ng/ml): 5.14, Standard deviation: 0.185, CV(%): 3.6
- Sample 2: n=16, Mean(ng/ml): 7.35, Standard deviation: 0.397, CV(%): 5.4
- Sample 3: n=16, Mean(ng/ml): 12.1, Standard deviation: 0.593, CV(%): 4.9,
- Sample 1: n=24, Mean(ng/ml): 5.36, Standard deviation: 0.295, CV(%): 5.5
- Sample 2: n=24, Mean(ng/ml): 8.04, Standard deviation: 0.571, CV(%): 7.1
- Sample 3: n=24, Mean(ng/ml): 13.5, Standard deviation: 0.837, CV(%): 6.2

Restrictions: For Research Use only

Handling

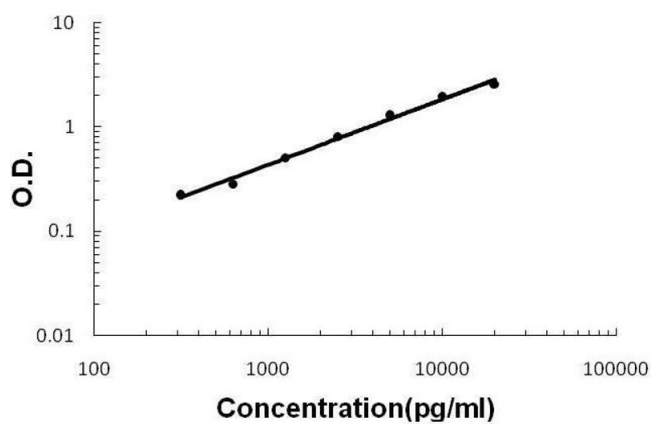
Handling Advice: Avoid multiple freeze-thaw cycles.

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

Human CEACAM1 ELISA Kit



ELISA

Image 1. Human CEACAM1 PicoKine ELISA Kit standard curve