

Datasheet for ABIN2859263  
**CD44 ELISA Kit**



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**1** Image

Overview

Quantity:	96 tests
Target:	CD44
Binding Specificity:	AA 22-271
Reactivity:	Rat
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 Rat CD44
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: Q22-E271
Specificity:	Expression system for standard: NSO Immunogen sequence: Q22-E271
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:	CD44
Alternative Name:	CD44 (CD44 Products)
Background:	<p>Protein Function: Receptor for hyaluronic acid (HA). Mediates cell-cell and cell-matrix interactions through its affinity for HA, and possibly also through its affinity for other ligands such as osteopontin, collagens, and matrix metalloproteinases (MMPs). Adhesion with HA plays an important role in cell migration, tumor growth and progression. In cancer cells, may play an important role in invadopodia formation. Also involved in lymphocyte activation, recirculation and homing, and in hematopoiesis. Receptor for LGALS9, the interaction enhances binding of SMAD3 to the FOXP3 promoter, leading to up-regulation of FOXP3 expression and increased induced regulatory T (iTreg) cell stability and suppressive function. .</p> <p>Background: CD44 is an integral cell membrane glycoprotein with a postulated role in matrix adhesion lymphocyte activation and lymph node homing. It contains 19 exons spanning 50 kb of genomic DNA. In humans, the CD44 antigen is encoded by the CD44 gene on Chromosome 11. The protein encoded by this gene is a cell-surface glycoprotein involved in cell-cell interactions, cell adhesion and migration. It is a receptor for hyaluronic acid (HA) and can also interact with other ligands, such as osteopontin, collagens, and matrix metalloproteinases (MMPs). Transcripts for this gene undergo complex alternative splicing that results in many functionally distinct isoforms, however, the full length nature of some of these variants has not been determined. Alternative splicing is the basis for the structural and functional diversity of this protein, and may be related to tumor metastasis.</p> <p>Synonyms: CD44 antigen, Extracellular matrix receptor III, ECMR-III, GP90 lymphocyte homing/adhesion receptor, HUTCH-I, Hermes antigen, Hyaluronate receptor, Phagocytic glycoprotein 1, PGP-1, Phagocytic glycoprotein I, PGP-I, CD44, Cd44,</p> <p>Full Gene Name: CD44 antigen</p> <p>Cellular Localisation: Cell membrane, Single-pass type I membrane protein . Colocalizes with actin in membrane protrusions at wounding edges..</p>
Gene ID:	25406

## Target Details

UniProt:	<a href="#">P26051</a>
Pathways:	<a href="#">Glycosaminoglycan Metabolic Process</a> , <a href="#">Autophagy</a> , <a href="#">Negative Regulation of intrinsic apoptotic Signaling</a>

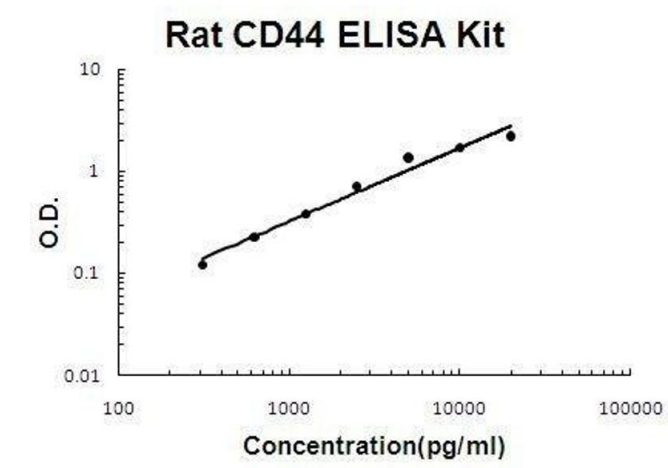
## Application Details

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 1 Link domain.
Plate:	Pre-coated
Protocol:	rat CD44 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CD44 has been precoated onto 96-well plates. Standards(NSO, Q22 - E271) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD44 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 rat CD44 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 rat CD44 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 rat cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each rat CD44 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(ng/ml): 1.76, Standard deviation: 0.09, CV(%): 5.1</li><li>• Sample 2: n=16, Mean(ng/ml): 5.5, Standard deviation: 0.35, CV(%): 6.4</li><li>• Sample 3: n=16, Mean(ng/ml): 12.8, Standard deviation: 0.73, CV(%): 5.7,</li><li>• Sample 1: n=24, Mean(ng/ml): 2.1, Standard deviation: 0.16, CV(%): 7.8</li><li>• Sample 2: n=24, Mean(ng/ml): 7.6, Standard deviation: 0.52, CV(%): 6.9</li><li>• Sample 3: n=24, Mean(ng/ml): 14, Standard deviation: 0.88, CV(%): 6.3</li></ul>
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.** Rat CD44 PicoKine ELISA Kit standard curve