

Datasheet for ABIN2859267
CD73 ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	CD73 (NT5E)
Binding Specificity:	AA 27-547
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CD73/NT5E
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: CHO Immunogen sequence: W27-K547
Specificity:	Expression system for standard: CHO Immunogen sequence: W27-K547
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:	CD73 (NT5E)
Alternative Name:	NT5E (NT5E Products)
Background:	<p>Protein Function: Hydrolyzes extracellular nucleotides into membrane permeable nucleosides. Exhibits AMP-, NAD-, and NMN-nucleosidase activities. .</p> <p>Background: 5'-nucleotidase (5'-NT), also known as ecto-5'-nucleotidase or CD73 (Cluster of Differentiation 73), is an enzyme that in humans is encoded by the NT5E gene. Ecto-5-prime-nucleotidase catalyzes the conversion at neutral pH of purine 5-prime mononucleotides to nucleosides, the preferred substrate being AMP. The enzyme consists of a dimer of 2 identical 70-kD subunits bound by a glycosyl phosphatidyl inositol linkage to the external face of the plasma membrane. And the enzyme is used as a marker of lymphocyte differentiation. Consequently, a deficiency of NT5 occurs in a variety of immunodeficiency diseases. Other forms of 5-prime nucleotidase exist in the cytoplasm and lysosomes and can be distinguished from ecto-NT5 by their substrate affinities, requirement for divalent magnesium ion, activation by ATP, and inhibition by inorganic phosphate. Rare allelic variants are associated with a syndrome of adult-onset calcification of joints and arteries (CALJA) affecting the iliac, femoral, and tibial arteries reducing circulation in the legs and the joints of the hands and feet causing pain.</p> <p>Synonyms: 5'-nucleotidase,5'-NT,3.1.3.5,Ecto-5'-nucleotidase,CD73,NT5E,NT5, NTE,</p> <p>Full Gene Name: 5'-nucleotidase</p> <p>Cellular Localisation: Cell membrane, Lipid-anchor, GPI-anchor.</p>
Gene ID:	4907
UniProt:	P21589
Pathways:	Synaptic Membrane , Ribonucleoside Biosynthetic Process

Application Details

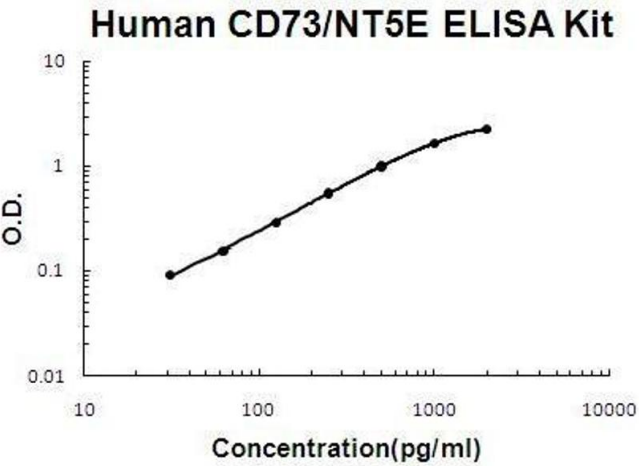
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well
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Application Details

	assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the 5'-nucleotidase family.
Plate:	Pre-coated
Protocol:	human CD73 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CD73 has been precoated onto 96-well plates. Standards(CHO, W27-K547) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD73 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 CD73 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human CD73 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 and plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human CD73 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 132, Standard deviation: 5.94, CV(%): 4.5• Sample 2: n=16, Mean(pg/ml): 510, Standard deviation: 28.56, CV(%): 5.6• Sample 3: n=16, Mean(pg/ml): 1427, Standard deviation: 91.33, CV(%): 6.4,• Sample 1: n=24, Mean(pg/ml): 167, Standard deviation: 8.85, CV(%): 5.3• Sample 2: n=24, Mean(pg/ml): 624, Standard deviation: 37.44, CV(%): 6• Sample 3: n=24, Mean(pg/ml): 1553, Standard deviation: 111.82, CV(%): 7.2
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



ELISA

Image 1. Human CD73 PicoKine ELISA Kit standard curve