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Datasheet for ABIN1889325

MME ELISA Kit

1 Image

Overview

Quantity:	96 tests
Target:	MME
Binding Specificity:	AA 52-750
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	125-8000 pg/mL
Minimum Detection Limit:	125 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CD10/Neprilysin
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: Y52-W750
Specificity:	Expression system for standard: CHO Immunogen sequence: Y52-W750
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: MME

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

Target Type: Chemical

Background: Protein Function: Thermolysin-like specificity, but is almost confined on acting on polypeptides of up to 30 amino acids (PubMed:15283675, PubMed:8168535). Biologically important in the destruction of opioid peptides such as Met- and Leu-enkephalins by cleavage of a Gly-Phe bond (PubMed:17101991). Able to cleave angiotensin-1, angiotensin-2 and angiotensin 1-9 (PubMed:15283675). Involved in the degradation of atrial natriuretic factor (ANF) (PubMed:2531377, PubMed:2972276). Displays UV-inducible elastase activity toward skin preelastic and elastic fibers (PubMed:20876573). .

Background: CD10, also known as membrane metallo-endopeptidase, neutral endopeptidase(NEP), Neprilysin, or common acute lymphoblastic leukemia antigen(CALLA), is a zinc-dependent metalloprotease enzyme that degrades a number of small secreted peptides, most notably the amyloid beta peptide whose abnormal misfolding and aggregation in neural tissue has been implicated as a cause of Alzheimer's disease. This gene is localized to human chromosome 3 by study of somatic cell hybrids and regionalized the location to 3q21-q27 by in situ hybridization. By cDNA transfection analysis, CD10 is confirmed as a functional neutral endopeptidase of the type that has previously been called enkephalinase. CD10 has also been called atriopeptidase. Atriopeptidase specifically degrades atrial natriuretic factor. A specific enzyme inhibitor was developed and reported that it had effects similar to those of low-dose ANF infusion. These effects include diuresis, natriuresis, vasodilatation, and suppression of the renin-angiotensin-aldosterone system.

Synonyms: Neprilysin,3.4.24.11 ,Atriopeptidase,Common acute lymphocytic leukemia antigen,CALLA,Enkephalinase,Neutral endopeptidase 24.11,NEP,Neutral endopeptidase,Skin fibroblast elastase,SFE,CD10,MME,EPN,

Full Gene Name: Neprilysin

Cellular Localisation: Cell membrane, Single-pass type II membrane protein.

Target Details

Gene ID:	4311
UniProt:	P08473
Pathways:	RTK Signaling , Peptide Hormone Metabolism , Regulation of Systemic Arterial Blood Pressure by Hormones , Smooth Muscle Cell Migration

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 peptidase M13 family.
Plate:	Pre-coated
Protocol:	human CD10 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CD10 has been precoated onto 96-well plates. Standards(CHO, Y52-W750) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD10 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 CD10 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 8000pg/mL, 4000pg/mL, 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL human CD10 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 CD10 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 1265, Standard deviation: 48.07, CV(%): 3.8• Sample 2: n=16, Mean(pg/ml): 3210, Standard deviation: 179.8, CV(%): 5.6• Sample 3: n=16, Mean(pg/ml): 6840, Standard deviation: 321.5, CV(%): 4.7,• Sample 1: n=24, Mean(pg/ml): 1526, Standard deviation: 83.93, CV(%): 5.5• Sample 2: n=24, Mean(pg/ml): 2761, Standard deviation: 201, CV(%): 7.3• Sample 3: n=24, Mean(pg/ml): 6397, Standard deviation: 369.6, CV(%): 6.2
Restrictions:	For Research Use only

Handling

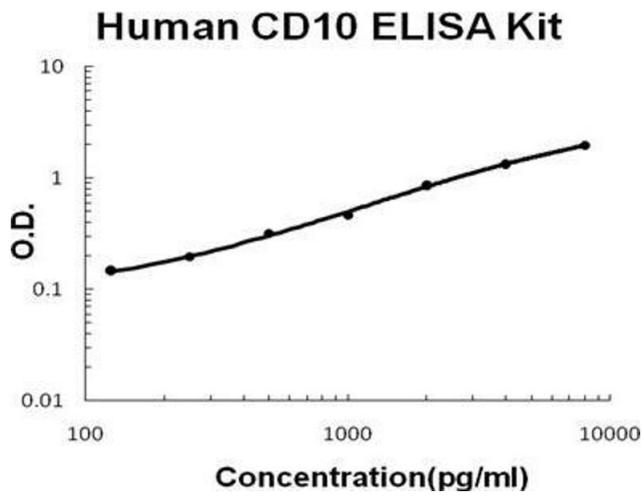
Handling Advice: Avoid multiple freeze-thaw cycles.

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

Images



ELISA

Image 1. Human CD10/Nepriylsin PicoKine ELISA Kit standard curve