

Datasheet for ABIN411375
Cardiotrophin 1 ELISA Kit[Go to Product page](#)

1 Image

Overview

Quantity:	96 tests
Target:	Cardiotrophin 1 (CTF1)
Binding Specificity:	AA 2-201
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 Cardiotrophin-1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: S2-A201
Specificity:	Expression system for standard: E.coli Immunogen sequence: S2-A201
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:	Cardiotrophin 1 (CTF1)
Alternative Name:	CTF1 (CTF1 Products)
Background:	<p>Protein Function: Induces cardiac myocyte hypertrophy in vitro. Binds to and activates the ILST/gp130 receptor.</p> <p>Background: Cardiotrophin-1(CT-1) is a member of the family of cytokines that includes leukemia inhibitory factor(LIF), ciliary neurotrophic factor(CNTF), oncostatin M(OSM), interleukin-6(IL6), and interleukin-11(IL11). And the CT-1 gene is mapped to 1p21-p13. The human CT-1 protein contains 201 amino acids and shares 80 % amino acid identity with the 203-amino acid mouse CT-1 sequence, however, unlike the mouse protein, human CT-1 has 2 rather than 1 cys and has no N-glycosylation site. Despite lacking a signal sequence, secreted CT-1 and mouse CT-1 induce cardiac myocyte hypertrophy in cell culture and bind to both mouse and human LIFR but not to OSMR. Furthermore, A 1.7-kb CT-1 transcript was detected at high levels in heart, skeletal muscle, prostate, and ovary. Low levels were detected in lung, kidney, pancreas, thymus, testis, and small intestine, with little or no expression detected in brain, placenta, spleen, colon, and peripheral blood leukocytes. And it was also observed strong expression in fetal lung and kidney.</p> <p>Synonyms: Cardiotrophin-1,CT-1,CTF1,</p> <p>Full Gene Name: Cardiotrophin-1</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	1489
UniProt:	Q16619
Pathways:	JAK-STAT Signaling

Application Details

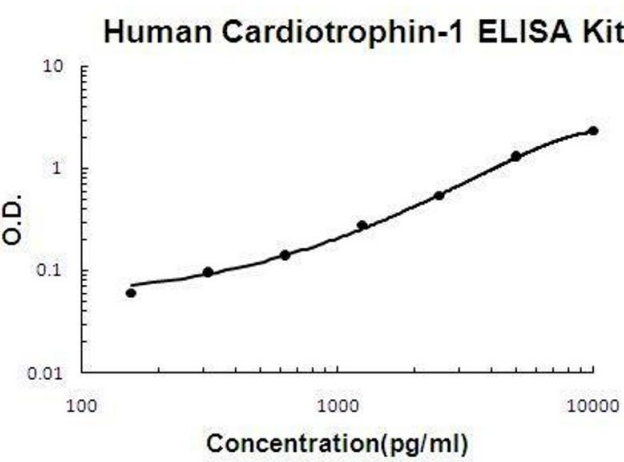
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
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Application Details

Comment:	Tissue Specificity: Highly expressed in heart, skeletal muscle, prostate and ovary. Lower levels in lung, kidney, pancreas, thymus, testis and small intestine. Little or no expression in brain, placenta, liver, spleen, colon or peripheral blood leukocytes.
Plate:	Pre-coated
Protocol:	human CT-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CT-1 has been precoated onto 96-well plates. Standards(E.coli, S2-A201) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CT-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 CT-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 CT-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 CT-1 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 253, Standard deviation: 11.38, CV(%): 4.5• Sample 2: n=16, Mean(pg/ml): 759, Standard deviation: 35.67, CV(%): 4.7• Sample 3: n=16, Mean(pg/ml): 2042, Standard deviation: 98.09, CV(%): 4.9,• Sample 1: n=24, Mean(pg/ml): 264, Standard deviation: 12.14, CV(%): 4.6• Sample 2: n=24, Mean(pg/ml): 788, Standard deviation: 37.82, CV(%): 4.8• Sample 3: n=24, Mean(pg/ml): 1946, Standard deviation: 97.30, CV(%): 5.0
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 Cardiotrophin-1 PicoKine ELISA Kit standard curve