Datasheet for ABIN1672794

GDF15 ELISA Kit

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Overview

Quantity:	96 tests
Target:	GDF15
Binding Specificity:	AA 197-308
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 GDF-15
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: A197-I308
Specificity:	Expression system for standard: CHO Immunogen sequence: A197-I308
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:	GDF15
Alternative Name:	GDF15 (GDF15 Products)
Background:	Background: GDF-15(Growth differentiation factor 15),also known as TGF-PL, MIC-1, PDF, PLAB, and PTGFB, is a protein belonging to the transforming growth factor beta superfamily that has a role in regulating inflammatory and apoptotic pathways in injured tissues and during disease processes. Using FISH, the MIC1 gene is mapped to 19p13.2-p13.1. Its expression in liver can be significantly up-regulated in during injury of organs such as liver, kidney, heart and lung. GDF15 showed increased expression and secretion during erythroblast maturation. GDF15 functions as an antiinflammatory cytokine by directly interfering with chemokine signaling and integrin activation. Synonyms: Growth/differentiation factor 15,GDF-15,Macrophage inhibitory cytokine 1,MIC-1,NSAID-activated gene 1 protein,NAG-1,NSAID-regulated gene 1 protein,NRG-1,Placental TGF-beta,Placental bone morphogenetic protein,Prostate differentiation factor,GDF15,MIC1, PDF, PLAB, PTGFB, Full Gene Name: Growth/differentiation factor 15 Cellular Localisation: Secreted.
Gene ID:	9518
UniProt:	Q99988
Pathways:	SARS-CoV-2 Protein Interactome

Application Details

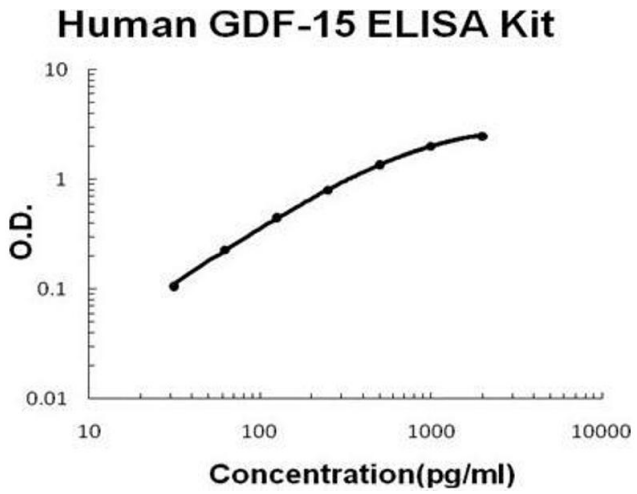
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the TGF-beta family. Tissue Specificity: Highly expressed in placenta, with lower levels in prostate and colon and

Application Details

	some expression in kidney.
Plate:	Pre-coated
Protocol:	human GDF-15 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for GDF-15 has been precoated onto 96-well plates. Standards(CHO, A197-I308) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for GDF-15 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 GDF-15 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 GDF-15 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 GDF-15 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 104, Standard deviation: 2.5, CV(%): 2.4 • Sample 2: n=16, Mean(pg/ml): 735, Standard deviation: 27.93, CV(%): 3.8 • Sample 3: n=16, Mean(pg/ml): 1518, Standard deviation: 68.31, CV(%): 4.5, • Sample 1: n=24, Mean(pg/ml): 121, Standard deviation: 6.897, CV(%): 5.7 • Sample 2: n=24, Mean(pg/ml): 757, Standard deviation: 46.18, CV(%): 6.1 • Sample 3: n=24, Mean(pg/ml): 1526, Standard deviation: 112.9, CV(%): 7.4
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 GDF-15 PicoKine ELISA Kit standard curve