Datasheet for ABIN2859255

Stanniocalcin 1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	Stanniocalcin 1 (STC1)
Binding Specificity:	AA 34-247
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 Stanniocalcin 1/STC1
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: V34-A247
Specificity:	NSO, V34-A247
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

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:	Stanniocalcin 1 (STC1)
Alternative Name:	STC1 (STC1 Products)
Background:	Protein Function: Stimulates renal phosphate reabsorption, and could therefore prevent hypercalcemia. Background: Stanniocalcin-1 is a glycoprotein which is encoded by the STC1 gene. This gene encodes a secreted, homodimeric glycoprotein that is expressed in a wide variety of tissues and may have autocrine or paracrine functions. Human Stanniocalcin-1 is a putative molecular biomarker of leukemic microenvironment and the only molecular function known up to date is a SUMO E3 ligase activity in the SUMOylation cycle. STC1 interacts with lots of proteins in the cytoplasm, mitochondria, endoplasmatic reticulum and dot-like fashion in the nucleus. The N-terminal region of STC1 is the function region which is responsible to establish the interaction with its partners, including SUMO1. Low resolution studies shows that STC1 is an anti-parallel homodimer in solution and the cystein 202 is responsible for the dimerization of this protein. All the 5 dissulfide bonds of human STC1 are conserved and have the same profile of fish STC. Synonyms: Stanniocalcin-1,STC-1,STC1,STC, Full Gene Name: Stanniocalcin-1 Cellular Localisation: Secreted.
Gene ID:	6781
UniProt:	P52823
Pathways:	Hormone Activity

Application Details

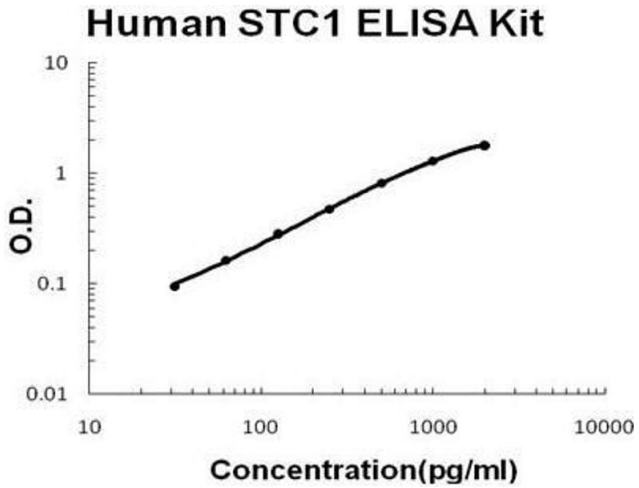
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Expressed in most tissues, with the highest levels in ovary, prostate, heart, kidney and thyroid. In the kidney, expression is confined to the nephron, specifically in the distal convoluted tubule and in the collecting tubule. Not detected in the brain, liver, spleen, peripheral

Application Details

	blood leukocytes and adrenal medulla.
Plate:	Pre-coated
Protocol:	human STC1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for STC1 has been precoated onto 96-well plates. Standards (NSO, V34-A247) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for STC1 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 STC1 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 STC1 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 STC1 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 246, Standard deviation: 14.02, CV(%): 5.7 • Sample 2: n=16, Mean(pg/ml): 801, Standard deviation: 48.06, CV(%): 6.0 • Sample 3: n=16, Mean(pg/ml): 1351, Standard deviation: 74.30, CV(%): 5.5, • Sample 1: n=24, Mean(pg/ml): 254, Standard deviation: 15.74, CV(%): 6.2 • Sample 2: n=24, Mean(pg/ml): 775, Standard deviation: 49.6, CV(%): 6.4 • Sample 3: n=24, Mean(pg/ml): 1416, Standard deviation: 67.96, CV(%): 6.8
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 Stanniocalcin 1/STC1 PicoKine ELISA Kit standard curve

