Datasheet for ABIN1889379

SPARC ELISA Kit

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Overview

Quantity:	96 tests
Target:	SPARC
Binding Specificity:	AA 18-303
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	0.78-50 ng/mL
Minimum Detection Limit:	0.78 ng/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human SPARC
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Milk
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: A18-I303
Specificity:	Expression system for standard: NSO Immunogen sequence: A18-I303
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<20pg/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:	SPARC
Alternative Name:	SPARC (SPARC Products)
Background:	Protein Function: Appears to regulate cell growth through interactions with the extracellular matrix and cytokines. Binds calcium and copper, several types of collagen, albumin, thrombospondin, PDGF and cell membranes. There are two calcium binding sites, an acidic domain that binds 5 to 8 Ca(2+) with a low affinity and an EF-hand loop that binds a Ca(2+) ion with a high affinity. Background: SPARC(secreted protein acidic and rich in cysteine), also known as Osteonectin, is a protein that in humans is encoded by the SPARC gene. The human SPARC gene is 26.5 kb long, and contains 10 exons and 9 introns and is located on chromosome 5q31-q33. SPARC is a glycoprotein of 40 kD. SPARC is an acidic, cysteine-rich glycoprotein consisting of a single polypeptide chain that can be broken into 4 domains: 1) an Ca++ binding domains near the glutamic acidic-rich region at the amino terminus(domain I), 2) a cysteine- rich(domain II), 3) a hydrophilic region(domain III) and 4) an EF hand motif at the carboxy terminus region(domain IV). Osteonectin is a glycoprotein in the bone that binds sodium. It is secreted by osteoblasts during bone formation, initiating mineralization and promoting mineral crystal formation. Osteonectin also shows affinity for collagen in addition to bone mineral calcium. A correlation between osteonectin over expression and ampullary cancers and chronic pancreatitis has been found. Synonyms: SPARC,Basement-membrane protein 40,BM-40,Osteonectin,ON,Secreted protein acidic and rich in cysteine,SPARC,ON, Full Gene Name: SPARC Cellular Localisation: Secreted, extracellular space, extracellular matrix, basement membrane . In or around the basement membrane.
Gene ID:	6678
UniProt:	P09486

Target Details

Pathways:	Autophagy

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 SPARC family.
Plate:	Pre-coated
Protocol:	human SPARC ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for SPARC has been precoated onto 96-well plates. Standards(NSO, A18-I303) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for SPARC 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 SPARC amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 50 ng/mL, 25 ng/mL, 12.5 ng/mL, 6.25 ng/mL, 3.12 ng/mL, 1.56 ng/mL, 0.78 ng/mL human SPARC 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 human milk to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each human SPARC standard solution and each sample is measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 7, Standard deviation: 0.357, CV(%): 5.1 • Sample 2: n=16, Mean(ng/ml): 19.5, Standard deviation: 0.819, CV(%): 4.2 • Sample 3: n=16, Mean(ng/ml): 32.2, Standard deviation: 1.26, CV(%): 4.8, • Sample 1: n=24, Mean(ng/ml): 10.1, Standard deviation: 0.596, CV(%): 5.9 • Sample 2: n=24, Mean(ng/ml): 24.5, Standard deviation: 1.568, CV(%): 7.4 • Sample 3: n=24, Mean(ng/ml): 38.4, Standard deviation: 2.04, CV(%): 5.3
Restrictions:	For Research Use only

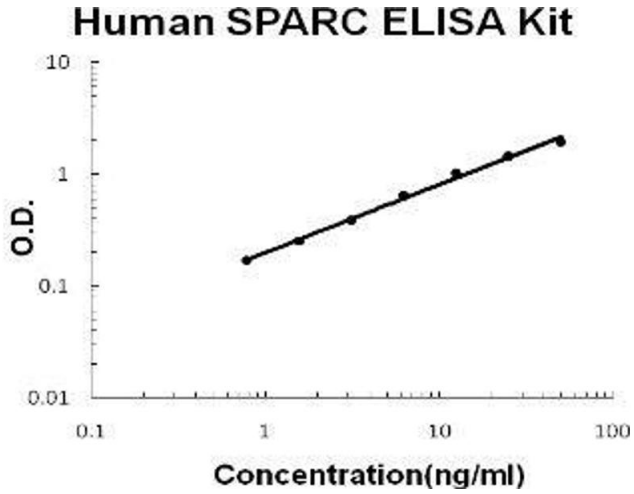
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C

Handling

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 SPARC PicoKine ELISA Kit standard curve