Datasheet for ABIN1672831

COMP ELISA Kit

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Overview

Quantity:	96 tests
Target:	COMP
Binding Specificity:	AA 21-757
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 COMP
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: Q21-A757
Specificity:	Expression system for standard: NSO Immunogen sequence: Q21-A757
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:	COMP
Alternative Name:	COMP (COMP Products)
Background:	Protein Function: May play a role in the structural integrity of cartilage via its interaction with other extracellular matrix proteins such as the collagens and fibronectin. Can mediate the interaction of chondrocytes with the cartilage extracellular matrix through interaction with cell surface integrin receptors. Could play a role in the pathogenesis of osteoarthritis. Potent suppressor of apoptosis in both primary chondrocytes and transformed cells. Suppresses apoptosis by blocking the activation of caspase-3 and by inducing the IAP family of survival proteins (BIRC3, BIRC2, BIRC5 and XIAP). Essential for maintaining a vascular smooth muscle cells (VSMCs) contractile/differentiated phenotype under physiological and pathological stimuli. Maintains this phenotype of VSMCs by interacting with ITGA7 (By similarity). . Background: Cartilage oligomeric matrix protein is a protein that in humans is encoded by the COMP gene. The sequences of rat and bovine COMP indicate that it is a member of the thrombospondin gene family. By Southern blot analysis of a somatic cell hybrid DNA panel and by isotopic in situ hybridization, human COMP gene was mapped to 19p13.1, and the murine COMP gene was mapped to the central region of mouse chromosome 8 by use of an interspecific backcross mapping panel. COMP is a marker of cartilage turnover. Synonyms: Cartilage oligomeric matrix protein,COMP,Thrombospondin-5,TSP5,COMP, Full Gene Name: Cartilage oligomeric matrix protein Cellular Localisation: Secreted, extracellular space, extracellular matrix.
Gene ID:	1311
UniProt:	P49747

Application Details

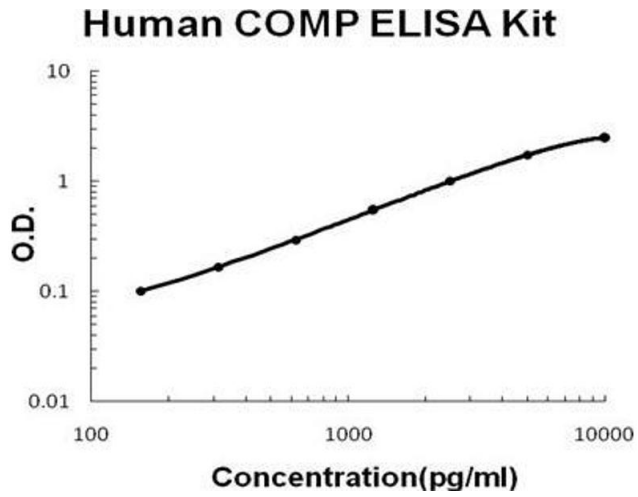
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Application Details

Comment:	Sequence similarities: Belongs to the thrombospondin family. Tissue Specificity: Abundantly expressed in the chondrocyte extracellular matrix, and is also found in bone, tendon, ligament and synovium and blood vessels. Increased amounts are produced during late stages of osteoarthritis in the area adjacent to the main defect. .
Plate:	Pre-coated
Protocol:	human COMP ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for COMP has been precoated onto 96-well plates. Standards(NSO, Q21-A757) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for COMP 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 COMP 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 COMP 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 COMP standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 1.02, Standard deviation: 0.052, CV(%): 5.1 • Sample 2: n=16, Mean(ng/ml): 3.12, Standard deviation: 0.131, CV(%): 4.2 • Sample 3: n=16, Mean(ng/ml): 6.19, Standard deviation: 0.254, CV(%): 4.1, • Sample 1: n=24, Mean(ng/ml): 1.13, Standard deviation: 0.07, CV(%): 6.2 • Sample 2: n=24, Mean(ng/ml): 3.08, Standard deviation: 0.166, CV(%): 5.4 • Sample 3: n=24, Mean(ng/ml): 6.23, Standard deviation: 0.324, CV(%): 5.2
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



ELISA

Image 1. Human COMP PicoKine ELISA Kit standard curve