Datasheet for ABIN1889453

CRP ELISA Kit

1 Image | 5 Publications

Go to Product page

Overview

Quantity:	96 tests
Target:	CRP
Binding Specificity:	AA 17-224
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	1.56-100 ng/mL
Minimum Detection Limit:	1.56 ng/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human CRP
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: F17-P224
Specificity:	Expression system for standard: NSO Immunogen sequence: F17-P224
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:	CRP
Alternative Name:	C-Reactive Protein (CRP Products)
Background:	Protein Function: Displays several functions associated with host defense: it promotes agglutination, bacterial capsular swelling, phagocytosis and complement fixation through its calcium-dependent binding to phosphorylcholine. Can interact with DNA and histones and may scavenge nuclear material released from damaged circulating cells. Background: C Reactive Protein (CRP) is a major acute phase reactant synthesized primarily in the liver hepatocytes. It is composed of 5 identical, 21,500-molecular weight subunits. CRP mediates activities associated with preimmune nonspecific host resistance. CRP shows the strongest association with cardiovascular events. It is detectable on the surface of about 4 % of normal peripheral blood lymphocytes. Acute phase reactant CRP is produced in the liver. Synonyms: C-reactive protein,C-reactive protein(1-205),CRP,PTX1, Full Gene Name: C-reactive protein Cellular Localisation: Secreted.
Gene ID:	1401
UniProt:	P02741
Pathways:	Carbohydrate Homeostasis

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 pentaxin family. Tissue Specificity: Found in plasma.
Plate:	Pre-coated
Protocol:	human CRP ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay

Application Details

	technology. A monoclonal antibody from mouse specific for CRP has been precoated onto 96-well plates. Standards(NSO, F17-P224) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CRP 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 CRP amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 100 ng/mL, 50 ng/mL, 25 ng/mL, 1.25 ng/mL, 6.25 ng/mL, 3.12 ng/mL, 1.56 ng/mL human CRP 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 CRP standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 16.1, Standard deviation: 0.080, CV(%): 5 • Sample 2: n=16, Mean(ng/ml): 35, Standard deviation: 1.925, CV(%): 5.5 • Sample 3: n=16, Mean(ng/ml): 60, Standard deviation: 4.32, CV(%): 7.2, • Sample 1: n=24, Mean(ng/ml): 13.6, Standard deviation: 1.088, CV(%): 6.8 • Sample 2: n=24, Mean(ng/ml): 32.8, Standard deviation: 2.099, CV(%): 6.4 • Sample 3: n=24, Mean(ng/ml): 61, Standard deviation: 4.453, CV(%): 7.3
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

Publications

Product cited in:	Koh, Park: "Responses of inflammatory cytokines following moderate intensity walking exercise in overweight or obese individuals." in: **Journal of exercise rehabilitation**, Vol. 13, Issue 4, pp. 472-476, (2017) (PubMed).

Publications

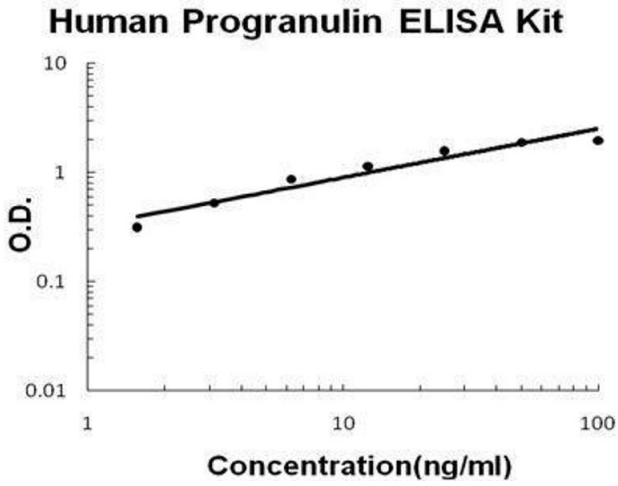
Liu, Piao, Guo, Wang, Sun, Gao, Zheng, Fang: "A New Chinese Medicine Intestine Formula Greatly Improves the Effect of Aminosalicylate on Ulcerative Colitis." in: **Evidence-based complementary and alternative medicine : eCAM**, Vol. 2017, pp. 7323129, (2017) (PubMed).

Asgary, Keshvari, Sahebkar, Hashemi, Rafieian-Kopaei: "Clinical investigation of the acute effects of pomegranate juice on blood pressure and endothelial function in hypertensive individuals." in: **ARYA atherosclerosis**, Vol. 9, Issue 6, pp. 326-31, (2014) (PubMed).

Shi, Song, Zhang, Li, Li: "Correlation between the microinflammatory state and left ventricular structural and functional changes in maintenance haemodialysis patients." in: **Experimental and therapeutic medicine**, Vol. 6, Issue 2, pp. 532-536, (2013) (PubMed).

Iori, Vinci, Murphy, Marescotti, Avogaro, Ahluwalia: "Glucose and fatty acid metabolism in a 3 tissue in-vitro model challenged with normo- and hyperglycaemia." in: **PLoS ONE**, Vol. 7, Issue 4, pp. e34704, (2012) (PubMed).

Images



ELISA

Image 1. Human CRP PicoKine ELISA Kit standard curve