

Datasheet for ABIN1672879

CRP ELISA Kit[Go to Product page](#)**1** Image**9** Publications

Overview

Quantity:	96 tests
Target:	CRP
Binding Specificity:	AA 20-230
Reactivity:	Rat
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 Rat 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: H20-S230
Specificity:	Expression system for standard: NSO Immunogen sequence: H20-S230
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:	<p>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 (By similarity). .</p> <p>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.</p> <p>Synonyms: C-reactive protein,Crp,Ptx1,</p> <p>Full Gene Name: C-reactive protein</p> <p>Cellular Localisation: Secreted.</p>
Gene ID:	25419
UniProt:	P48199
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:	<p>Sequence similarities: Belongs to the pentaxin family.</p> <p>Tissue Specificity: Found in plasma.</p>
Plate:	Pre-coated
Protocol:	rat 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, H2O-S230) 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 rat CRP 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 rat 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 rat cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each rat CRP standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 1462, Standard deviation: 99.4, CV(%): 6.8
- Sample 2: n=16, Mean(pg/ml): 2359, Standard deviation: 146.3, CV(%): 6.2
- Sample 3: n=16, Mean(pg/ml): 5759, Standard deviation: 264.9, CV(%): 4.6,
- Sample 1: n=24, Mean(pg/ml): 1478, Standard deviation: 124.2, CV(%): 8.4
- Sample 2: n=24, Mean(pg/ml): 2348, Standard deviation: 166.7, CV(%): 7.1
- Sample 3: n=24, Mean(pg/ml): 5879, Standard deviation: 399.8, 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

Publications

Product cited in: Liao, Zheng, Xie, Zhao, Zeng, Liu, Liu: "Adipose tissue-derived stem cells ameliorate hyperglycemia, insulin resistance and liver fibrosis in the type 2 diabetic rats." in: **Stem cell research & therapy**, Vol. 8, Issue 1, pp. 286, (2018) ([PubMed](#)).

Zhao, Han: "Dendrobium Officinale Kimura et Migo Ameliorates Insulin Resistance in Rats with Diabetic Nephropathy." in: **Medical science monitor basic research**, Vol. 24, pp. 84-92, (2018) ([PubMed](#)).

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Li, Su, Xu, Huang, Xu: "Artesunate prevents rats from the clozapine-induced hepatic steatosis and elevation in plasma triglycerides." in: **Neuropsychiatric disease and treatment**, Vol. 13, pp. 2477-2487, (2017) ([PubMed](#)).

Wang, Chai, He, Ai, Sun, Huang, Li: "Intermittent hypoxia simulating obstructive sleep apnea causes pulmonary inflammation and activates the Nrf2/HO-1 pathway." in: **Experimental and therapeutic medicine**, Vol. 14, Issue 4, pp. 3463-3470, (2017) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

