

High Sensitivity C Reactive Protein ELISA Kit | CRP elisa kit

Human CRP ELISA Kit

CATALOG #
AAA77892

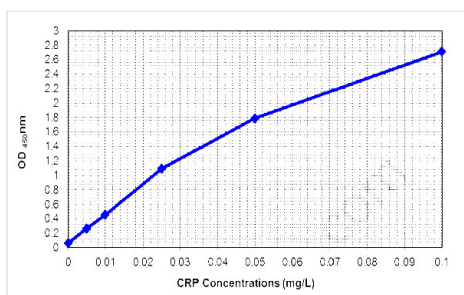
PRODUCT SYNONYMS

High Sensitivity C Reactive Protein; Human CRP ELISA Kit; High Sensitivity C Reactive Protein (CRP); CRP elisa kit

PRODUCT SPECIFICATIONS

Specificity	No cross reaction with other substances was observed.
Assay Type	Quantitative Sandwich
Intra-assay Precision	To determine within-run precision, three different samples of known concentration were assayed by replicates of 20 in 1 assay.
Inter-assay Precision	To determine between-run precision, three different samples of known concentration were assayed by replicates on 20 different assays.
Preparation and Storage	SUBSTRATE B (20% ACETONE) Handling Procedures and Equipment - Wear proper personal protective equipments. Keep away from heat, sparks and flame. Do not ingest. Do not breathe gas/ fumes/ vapor/ spray. Do not get in eyes, on skin or on clothing. Storage Requirements: - 2-10 degree C STOP SOLUTION (2N SULFURIC ACID) Handling Procedures and Equipment - Wear proper personal protective equipments. Avoid generating mist. Do not ingest. Do not breathe gas/ fumes/ vapor/ spray. Do not get in eyes, on skin or on clothing.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for CRP elisa kit	Background: Human CRP is a kind of nonimmunoglobulin serum substance, a heat labile beta-globulin. It is classified in a superfamily of proteins termed pentaxins or pentraxins: cyclic, non-glycosylated structures composed of five apparently identical globular non-covalently linked subunits aggregated symmetrically. Each subunit is 23.05 kD (206 amino acids), with a total molecular weight of 117.5 kDa, and consists of 14 anti-parallel beta-strands arranged in two beta-sheets. CRP is an acute phase protein, originally identified and named for its ability to precipitate the C-polysaccharide of pneumococcus in the presence of calcium. It is the prototypic acute phase reactant whose presence in plasma or serum serves as a useful laboratory indicator of systemic inflammatory disease. Normally, CRP in human biological fluids is present in trace amounts (0.07-8.00 mg/L, median 0.6 mg/L). Stimulated by certain cytokines (IL-1alpha, IL-1beta, TNFalpha- and TNF-beta, and indirectly by IL-6), its synthesis by hepatocytes enhanced dramatically. During the acute phase response, CRP concentration can increase up to 1000-fold within a few hours. Among acute phase proteins, CRP is a fast-reacting, sensitive and the most easily measured one. It has a rapid response time, short half-life and large incremental change and its catabolism is not affected by the type of inflammation. Following acute tissue damage or during the course of infectious and non-infectious conditions, hepatic synthesis of CRP dramatically increases. Typically, mild elevations of CRP are seen in a variety of inflammatory conditions. Serum amyloid A (SAA) is another major acute phase protein whose response is highly correlated with that of CRP. Both CRP and SAA respond sensitively to several stimuli, but they differ in certain responses. Principle of the Assay: This CRP enzyme-linked immunosorbent assay (ELISA) applies a technique called a quantitative sandwich immunoassay. The microtiter plate provided in this kit has been pre-coated with a monoclonal antibody specific for CRP. Standards or samples are then added to the appropriate microtiter plate wells and incubated. CRP, if present, will bind and become immobilized by the antibody pre-coated on the wells. The microtiter plate wells are thoroughly washed to remove unbound CRP and other components of sample. In order to quantitate the amount of CRP present in the sample, a standardized preparation of horseradish peroxidase (HRP)-conjugated antibody specific for CRP is added to each well to "sandwich" the CRP immobilized during the second incubation. The wells are thoroughly washed to remove all unbound HRP-conjugated antibodies and a TMB (3,3',5,5'-tetramethyl-benzidine) substrate solution is added to each well. The enzyme (HRP) and substrate are allowed to react over a short incubation period. Only those wells that contain CRP and enzyme-conjugated antibody will exhibit a change in colour. The enzyme-substrate reaction is terminated by the addition of an acid solution and the colour change is measured spectrophotometrically at a wavelength of 450 nm $\pm$ 2 nm. In order to measure the concentration of CRP in the samples, this kit standard (ready-to use) is assayed at the same time as the samples (diluted if necessary with Sample Diluent). This allows the operator to produce a standard curve of Optical Density (O.D.) versus CRP concentration (mg/L). The concentration of CRP in the samples is then determined by comparing the O.D. of the samples to the standard curve. Intended Uses: This Human CRP ELISA kit is to be used for the in vitro quantitative determination of human c reactive protein (CRP) concentrations in serum. This kit is intended FOR LABORATORY RESEARCH USE only, therefore, should not be used in any test or therapeutic procedures.
Product Categories/Family for CRP elisa kit	ELISA Kits for Human Inflammatory and Antioimmune Conditions

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/crp-elisa-kits/high-sensitivity-c-reactive-protein/77892>