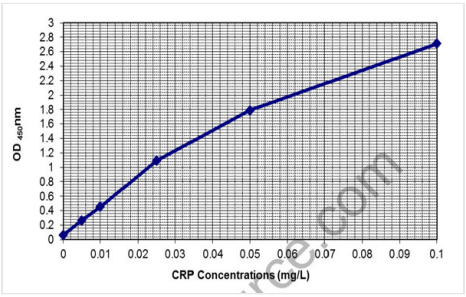
High Sensitivity C Reactive (CRP) ELISA Kit

PRODUCT OVERVIEW

Product Name	High Sensitivity C Reactive Protein (CRP), ELISA Kit
Full Product Name	Human CRP ELISA Kit
Product Gene Name	CRP elisa kit
Product Synonym Names	High Sensitivity C Reactive Protein (CRP)
Assay Type	Quantitative Sandwich
Specificity	No cross reaction with other substances was observed.
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.
Inter-assay Precision	To determine between-run precision, three different samples of known concentration were assayed by replicates on 20 different assays.
Intra-assay Precision	To determine within-run precision, three different samples of known concentration were assayed by replicates of 20 in 1 assay.
Product Categories/Family for CRP elisa kit	ELISA Kits for Human Inflamatory and Antoimmune Conditions
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.

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 ± 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.
Other Notes	Small volumes of CRP elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CRP purchase	MBS590072 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the High Sensitivity C Reactive Protein (CRP) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CRP. The ELISA analytical biochemical technique of the MBS590072 kit is based on CRP antibody-CRP antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CRP antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CRP. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of CRP elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CRP. It may not necessarily be applicable to this product.

Protein Family	C-reactive protein
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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Online datasheet: https://www.mybiosource.com/crp-elisa-kits/high-sensitivity-c-reactive-protein/590072