

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse C-Reactive Protein in ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 267917
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse C-Reactive Protein Met1-Ser225 Accession # P14847
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

C-reactive protein (CRP) is a member of the pentraxin family of plasma proteins that are part of the lectin fold superfamily of calcium-dependent, carbohydrate-binding proteins (1). CRP is named for its ability to bind to the C-polysaccharide of *Strep. Pneumoniae*. CRP is characterized by cyclic pentameric structure that contains five identical protomers/subunits, each exhibiting a lectin fold composed of two antiparallel β -sheets with a fattened jellyroll topology. The mouse CRP precursor is 225 amino acids (aa) in length and contains a signal peptide of 19 aa with a mature polypeptide of 206 aa (2, 3). There is one intrachain disulfide bond and no N-linked glycosylation site(s). Although rat CRP is glycosylated at an N-linked site, human, mouse and rabbit CRP all appear to be non-glycosylated (1, 4, 5). In mouse, the protomers are assembled non-covalently to form the pentamer; in rat, two of the five protomers are covalently linked (6). Mature mouse CRP shares 74%, 71%, 79%, and 68% aa sequence identity with rat, human, hamster and guinea pig CRP, respectively. In human, CRP is induced in hepatocytes principally by IL-6 (1). In mouse, IL-6 has very little effect. Mouse CRP induction is due principally to IL-1 (1, 7), with another pentraxin, SAP, being IL-6 inducible (7). CRP exhibits calcium-dependent binding to ligands. Phosphocholine (PCh), a constituent of many bacterial and fungal cell walls, is a principal ligand of CRP. CRP will also bind to the cell membrane of injured necrotic and apoptotic cells. In this context, CRP acts as an opsonin, binding to Fc γ RI and II, and serves as an antiinflammatory agent (8).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.