

DESCRIPTION

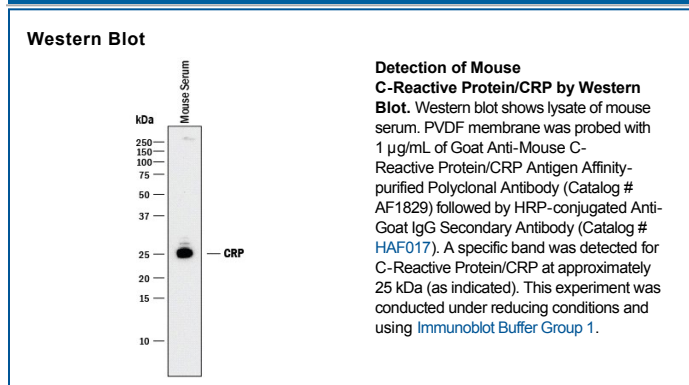
Species Reactivity	Mouse
Specificity	Detects mouse C-Reactive Protein/CRP in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human CRP and recombinant rat CRP is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse C-Reactive Protein/CRP His20-Ser225 Accession # Q91XB3
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	Perfusion fixed frozen sections of mouse liver

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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).

References:

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8. Mold, C. *et al.* (2002) *J. Immunol.* **169**:7019.