

## DESCRIPTION

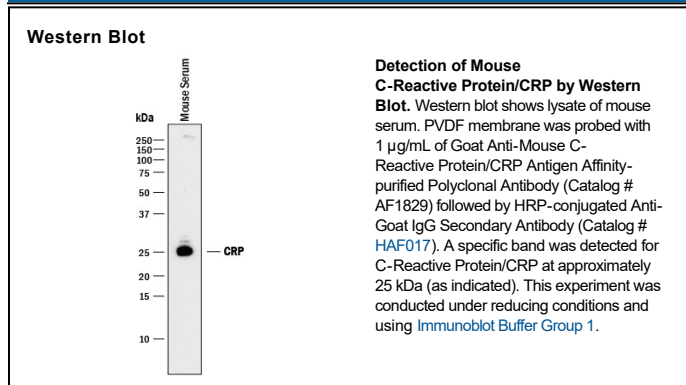
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse C-Reactive Protein/CRP in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human CRP and recombinant rat CRP is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse C-Reactive Protein/CRP His20-Ser225 Accession # Q91XB3
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	Perfusion fixed frozen sections of mouse liver

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**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  $\beta$ -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 $\gamma$  RI and II, and serves as an antiinflammatory agent (8).

**References:**

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