**Mouse C-Reactive Protein/CRP Antibody**

**Antigen Affinity-purified Polyclonal Goat IgG**

**Catalog Number: AF1829**

### 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 NSO-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 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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>1 μg/mL</td>
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<tr>
<td>Immunohistochemistry</td>
<td>5-15 μg/mL</td>
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**Western Blot**  
Detection of Mouse C-Reactive Protein/CRP by Western Blot. Western blot shows lysate of mouse serum. PVDF membrane was probed with 1 μg/mL of Goat Anti-Mouse C-Reactive Protein/CRP Antibody (Catalog # AF1829) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for C-Reactive Protein/CRP at approximately 25 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### 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.  
- 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.

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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 FcγRI and II, and serves as an antiinflammatory agent (8).

References: