

## Active Recombinant Human CRP Protein

**Cat. No.** CRP-226H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Recombinant Human CRP Protein (Phe17-Pro224) without tag was expressed in mouse myeloma cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | NS0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | 17-224 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | <p>The protein encoded by this gene belongs to the pentraxin family which also includes serum amyloid P component protein and pentraxin 3. Pentraxins are involved in complement activation and amplification via communication with complement initiation pattern recognition molecules, but also complement regulation via recruitment of complement regulators. The encoded protein has a calcium dependent ligand binding domain with a distinctive flattened beta-jellyroll structure. It exists in two forms as either a pentamer in circulation or as a nonsoluble monomer in tissues. It is involved in several host defense related functions based on its ability to recognize foreign pathogens and damaged cells of the host and to initiate their elimination by interacting with humoral and cellular effector systems in the blood. Consequently, the level of this protein in plasma increases greatly during acute phase response to tissue injury, infection, or other inflammatory stimuli. Elevated expression of the encoded protein is associated with severe acute respiratory syndrome coronavirus 2 infection.</p> |
| <b>Form</b>             | Homopentamer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bio-activity</b>                 | Measured by its binding ability in a functional ELISA. Immobilized recombinant human (rh) Fc gamma RIIA at 2 µg/mL (100 µL/well) can bind rhCRP with a linear range of 0.15-10 µg/mL.                                                                                   |
| <b>Molecular Mass</b>               | 26 kDa, reducing conditions                                                                                                                                                                                                                                             |
| <b>N-terminal Sequence Analysis</b> | Phe17                                                                                                                                                                                                                                                                   |
| <b>Endotoxin</b>                    | < 0.01 EU/µg of the protein by the LAL method.                                                                                                                                                                                                                          |
| <b>Purity</b>                       | > 97% by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.                                                                                                                                                            |
| <b>Applications</b>                 | Binding Activity                                                                                                                                                                                                                                                        |
| <b>Storage</b>                      | Avoid repeated freeze-thaw cycles.<br>12 months from date of receipt, -20 to -70 centigrade as supplied.<br>1 month, 2 to 8 centigrade under sterile conditions after reconstitution.<br>3 months, -20 to -70 centigrade under sterile conditions after reconstitution. |
| <b>Storage Buffer</b>               | Lyophilized from a 0.2 µm filtered solution in Tris-HCl, NaCl and CaCl <sub>2</sub> with BSA as a carrier protein.                                                                                                                                                      |
| <b>Reconstitution</b>               | Reconstitute at 200 µg/mL in sterile 20 mM Tris-HCl, pH 8.0 containing at least 0.1% human or bovine serum albumin.                                                                                                                                                     |

## GENE INFORMATION

**Gene Name** CRP C-reactive protein [ Homo sapiens (human) ]

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|------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Official Symbol</b> | CRP                                                                                                   |
| <b>Synonyms</b>        | CRP; C-reactive protein; PTX1; C-reactive protein; C-reactive protein, pentraxin-related; pentraxin 1 |
| <b>Gene ID</b>         | 1401                                                                                                  |
| <b>mRNA Refseq</b>     | NM_000567                                                                                             |
| <b>Protein Refseq</b>  | NP_000558                                                                                             |
| <b>MIM</b>             | 123260                                                                                                |
| <b>UniProt ID</b>      | P02741                                                                                                |

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