

Cytokines

Human Recombinant C-Reactive Protein

C-Reactive Protein



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Catalog #100-1297

200 µg

Product Description

C-reactive protein (CRP), also known as PTX1, is a member of the pentraxin family of proteins, which is characterized by the presence of five identical non-covalently linked subunits (Lu et al.). CRP is primarily synthesized by liver hepatocytes but also by other immune cells, like macrophages and lymphocytes (Sproston & Ashworth). It is an acute-phase protein and its expression is induced by IL-6 and IL-1 secretion of macrophages and T-cells during inflammation. CRP was also shown to play important roles in host defenses, including regulating complement activation in vivo (Sjoberg et al.), decreasing nitric oxide production, and inhibiting angiogenesis in vitro (Verma et al., 2002). At specific concentrations, CRP directly inhibits endothelial progenitor cell (EPC) differentiation, survival, and function, further implicating its role in cardiovascular diseases (Verma et al., 2004).

Product Information

Alternative Names: PTX1

Accession Number: P02741-1 (Gln19-Pro224)

Amino Acid Sequence: QTDMSRKAFV FPKESDTSYV SLKAPLTKPL KAFTVCLHFY TELSSTRGYS IFSYATKRQD NEILIFWSKD IGYSFTVGGG EILFEVPEVT VAPVHICTSW ESASGIVEFW VDGKPRVRKS LKKGTVGAE ASIILGQEQD SFGGNFEGSQ SLVGDIGNVN MWDFVLSPE INTIYLGPF SPVNLNWRAL KYEVQGEVFT KPQLWP

Predicted Molecular Mass: 23 kDa

Species: Human

Formulation: Lyophilized from sterile 20 mM Tris, 0.2 M NaCl, 5 mM CaCl₂, pH 8. Trehalose (5 - 8%), mannitol, and 0.01% TWEEN® 80 are normally added as protectants before lyophilization.

Source: HEK293 cells

Specifications

Activity: Not available

Purity: ≥ 87%

Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1 EU/µg protein.

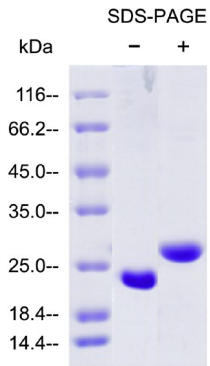
Preparation and Storage

Storage: Store at -20 to -80°C.

Stability: Stable as supplied for 12 months from date of receipt.

Preparation: Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.25 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



Human Recombinant C-Reactive Protein was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant C-Reactive Protein has a predicted molecular mass of 23 kDa but an apparent molecular mass of 26 kDa due to glycosylation.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines, or contact us at techsupport@stemcell.com.

References

- Lu J et al. (2018) Pentraxins and Fc receptor-mediated immune responses. *Front Immunol* 9. <https://doi.org/10.3389/fimmu.2018.02607>.
- Sjöberg AP et al. (2006) Regulation of complement activation by c-reactive protein: targeting of the inhibitory activity of C4b-binding protein. *J Immunol* 176(12): 7612–20.
- Sproston NR & Ashworth JJ. (2018) Role of C-reactive protein at sites of inflammation and infection. *Front Immunol* 13(9): 754.
- Verma S et al. (2004) C-reactive protein attenuates endothelial progenitor cell survival, differentiation, and function. *Circulation* 109(17): 2058–67.
- Verma S et al. (2002) A self-fulfilling prophecy. *Circulation* 106(8): 913–9.

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