# Recombinant Human Complement C4-B (C4B), partial

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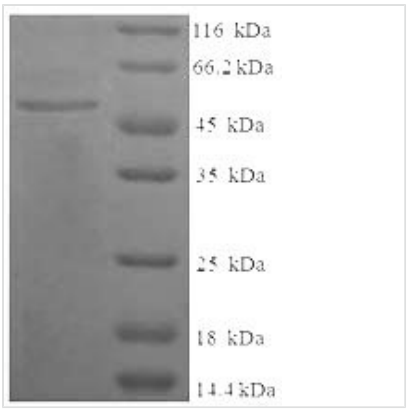
| **Product Code** | CSB-EP313364HU |
| **Relevance** | Non-enzymatic component of the C3 and C5 convertases and thus essential for the propagation of the classical complent pathway. Covalently binds to immunoglobulins and immune complexes and enhances the solubilization of immune aggregates and the clearance of IC through CR1 on erythrocytes. C4A isotype is responsible for effective binding to form amide bonds with immune aggregates or protein antigens, while C4B isotype catalyzes the transacylation of the thioester carbonyl group to form ester bonds with carbohydrate antigens.Derived from proteolytic degradation of complent C4, C4a anaphylatoxin is a mediator of local inflammatory process. It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and basophilic leukocytes. |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |
| **Uniprot No.** | P0C0L5 |
| **Alias** | Basic complement C4C3 and PZP-like alpha-2-macroglobulin domain-containing protein 3 |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Homo sapiens (Human) |
| **Purity** | Greater than 90% as determined by SDS-PAGE. |
| **Sequence** | EAPKVVEEQESRVHYTVCIWRNGKVGLSGMAIADVTLLSGFHALRADLEKLTS LSDRYVSHFETEGPHVLLYFDSVPTSRECVGFEAVQEVPVGLVQPASATLYDY YNPERRCSVFYGAPSKSRLLATLCSAEVCQCAEGKCPRQRRALERGLQDED GYRMKFACYYPRVEYGFQVKVLREDSRAAFRLFETKITQVLHFTKDVKAAANQ MRNFLVRASCRLRLEPGKEYLIMGLDGATYDLEGHPQYLLDSNSWIEEMPSER LCRSTRQRAACAQLNDFLQEYGTQGCQV |
| **Lead Time** | 3-7 business days |
| **Source** | E.coli |
| **Gene Names** | C4B |
| **Expression Region** | 1454-1744aa |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | N-terminal 6xHis-SUMO-tagged |
| **Mol. Weight** | 49.1kDa |

**Protein Description** partial

**Image**




(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

**Description**

The expression region of this recombinant Human C4B covers amino acids 1454-1744. This C4B protein is theoretically predicted to have a molecular weight of 49.1 kDa. This C4B recombinant protein is manufactured in e.coli. The N-terminal 6xHis-SUMO tag was smoothly integrated into the coding gene of C4B, which enables a simple process of detecting and purifying the C4B recombinant protein in the following steps.

Complement C4-B (C4B) is a component of the complement system, a crucial part of the immune system involved in recognizing and eliminating pathogens. C4B is one of the isoforms of the C4 protein, which is encoded by the C4B gene located in the major histocompatibility complex (MHC) on chromosome 6. The complement system is activated through a cascade of proteolytic reactions, leading to the formation of C4b, which participates in immune responses, including opsonization, inflammation, and cell lysis. C4B, in conjunction with other complement components, contributes to the clearance of immune complexes and pathogens. Polymorphisms in the C4B gene have been associated with various autoimmune diseases, emphasizing the importance of C4B in immune regulation and homeostasis. Understanding the function and genetic variations of C4B is crucial for unraveling the complexities of immune responses and their implications for health and disease.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.