

**C4B Antibody (Center) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP13985c****Specification**

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**C4B Antibody (Center) Blocking peptide - Product Information**Primary Accession [POCOL4](#)**C4B Antibody (Center) Blocking peptide - Additional Information****Gene ID** 720;721**Other Names**

Complement C4-A, Acidic complement C4, C3 and PZP-like alpha-2-macroglobulin domain-containing protein 2, Complement C4 beta chain, Complement C4-A alpha chain, C4a anaphylatoxin, C4b-A, C4d-A, Complement C4 gamma chain, C4A, CO4, CPAMD2

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP13985c was selected from the Center region of C4B. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**C4B Antibody (Center) Blocking peptide - Protein Information****Name** C4A**Synonyms** CO4, CPAMD2**Function**

Non-enzymatic component of C3 and C5 convertases and thus essential for the propagation of the classical complement 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.

**Cellular Location**

Secreted. Synapse. Cell projection, axon. Cell projection, dendrite

**Tissue Location**

Complement component C4 is expressed at highest levels in the liver, at moderate levels in the adrenal cortex, adrenal medulla, thyroid gland, and the kidney, and at lowest levels in the heart, ovary, small intestine, thymus, pancreas and spleen. The extra- hepatic sites of expression may be important for the local protection and inflammatory response.

**C4B Antibody (Center) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**C4B Antibody (Center) Blocking peptide - Images****C4B Antibody (Center) Blocking peptide - Background**

This gene encodes the basic form of complement factor 4, part of the classical activation pathway. The protein is expressed as a single chain precursor which is proteolytically cleaved into a trimer of alpha, beta, and gamma chains prior to secretion. The trimer provides a surface for interaction between the antigen-antibody complex and other complement components. The alpha chain may be cleaved to release C4 anaphylatoxin, a mediator of local inflammation. Deficiency of this protein is associated with systemic lupus erythematosus. This gene localizes to the major histocompatibility complex (MHC) class III region on chromosome 6. Varying haplotypes of this gene cluster exist, such that individuals may have 1, 2, or 3 copies of this gene. In addition, this gene exists as a long form and a short form due to the presence or absence of a 6.4 kb endogenous HERV-K retrovirus in intron 9.

**C4B Antibody (Center) Blocking peptide - References**

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Fernando, M.M., et al. Hum. Mutat. 31(7):866-874(2010) Mostafa, G.A., et al. J. Neuroimmunol. 223 (1-2), 115-119 (2010) :Hamad, O.A., et al. J. Immunol. 184(5):2686-2692(2010) Mougey, R. Immunohematology 26(1):30-38(2010)