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C4B Antibody (Center) Blocking peptide

Synthetic peptide
Catalog # BP13985c

Specification

C4B Antibody (Center) Blocking peptide - Product Information

Primary Accession P0C0L4

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 expressedas a single chain precursor which is proteolytically cleaved into atrimer of alpha, beta, and gamma chains prior to secretion. Thetrimer provides a surface for interaction between theantigen-antibody complex and other complement components. The alphachain may be cleaved to release C4 anaphylatoxin, a mediator oflocal inflammation. Deficiency of this protein is associated withsystemic lupus erythematosus. This gene localizes to the majorhistocompatibility complex (MHC) class III region on chromosome 6.Varying haplotypes of this gene cluster exist, such thatindividuals 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 thepresence or absence of a 6.4 kb endogenous HERV-K retrovirus inintron 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)