



C4a/b Monoclonal Antibody

Catalog No	BYmab-14044
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB
Gene Name	C4A/C4B
Protein Name	Complement C4-A/Complement C4-B
Immunogen	The antiserum was produced against synthesized peptide derived from the Internal region of human C4A/C4B. AA range:721-770
Specificity	C4a/b Monoclonal Antibody detects endogenous levels of C4a/b protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	C4A; CO4; CPAMD2; Complement C4-A; Acidic complement C4; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 2; C4B; CO4; CPAMD3; Complement C4-B; Basic complement C4; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 3
Observed Band	180kD
Cell Pathway	Secreted. Cell junction, synapse . Cell projection, axon . Cell projection, dendrite .
Tissue Specificity	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.
Function	disease:Defects in C4A are the cause of C4A deficiency [MIM:120810].,disease:The C4A6 allotype is totally deficient in hemolytic activity.,function:C4 plays a central role in the activation of the classical pathway of the complement system. It is processed by activated C1 which removes from

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the alpha chain the C4a anaphylatoxin. The remaining alpha chain fragment C4b is the major activation product and is an essential subunit of the C3 convertase (C4b2a) and the C5 convertase (C3bC4b2a) enzymes of the classical complement pathway.,function:Derived from proteolytic degradation of complement 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.,miscellaneous:C4A allotypes react more rapidly with the amino group of peptide antigens

Background

This gene encodes the acidic 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 is cleaved to release C4 anaphylatoxin, an antimicrobial peptide and a mediator of local inflammation. Deficiency of this protein is associated with systemic lupus erythematosus and type I diabetes mellitus. 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. Two transcript variants encoding different isoforms have been found for this gene. [provided]

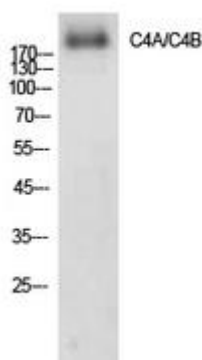
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using C4a/b Monoclonal Antibody