

Mouse anti-Human C3b, iC3b, C3c Monoclonal Antibody | anti-C3b antibody

C3b, iC3b, C3c, Human, clone C3-16.4

CATALOG # AAA77824	HOST Mouse	REACTIVITY Human	APPLICATIONS Western Blot, Functional Assay
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PRODUCT SYNONYMS

C3b; iC3b; C3c; Monoclonal Antibody; Human; clone C3-16.4; C3; Complement component C3; anti-C3b antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Clone Number	C3-16.4
Purity/Purification	Protein G
Form/Format	0.2 um filtered in PBS+0.1%BSA
Concentration	100 ug/ml (varies by lot)
Applicable Applications for anti-C3b antibody	WB (Western Blot), IA (Immunoassay), FA (Functional Assay)
Immunogen	Mixture of the human activated C3 fragments, C3b, iC3b, and C3dg, emulsified in complete Freund's adjuvant. Subsequently, mice were boosted three times at 2-week intervals with the same amount of C3 fragments in incomplete adjuvant.
Endotoxin	<0.40 EU/mg
Preparation and Storage	Store at 4 degree C. Under recommended storage conditions, product is stable for at least one year.

ADDITIONAL INFORMATION

Related Product Information for anti-C3b antibody	The antibody clone C3-16.4 recognize complement C3, C3b, iC3b and C3c. The recognition domain is determined to MG2-MG6. The antibody blocks alternative pathway C3-convertase formation. The complement system plays important roles in both innate and adaptive immune response and can produce an inflammatory and protective reaction to challenges from pathogens before an adaptive response can occur. It consists of a complex family of proteins and receptors which are found in the circulation, in tissues and other body-fluids. There are three pathways of complement activation. The classical pathway is initiated by Immune complexes; the lectin pathway by surface bound lectins; and the AP by all the surfaces that are not specifically protected against it. Each generates a C3 convertase, a serine protease that cleaves the central complement protein C3, and generates the major cleavage fragment C3b. The C3 and C5 convertases are enzymatic complexes that initiate and amplify the activity of the complement pathways and ultimately generate the cytolytic MAC. The synthesis of C3 is tissue-specific and is modulated in response to a variety of stimulatory agents. After cleavage by C3 convertase the anaphylotoxin C3a and activating C3b are formed. In the presence of complement regulatory molecules C3b may be further degraded sequentially to iC3b, C3c, C3dg and C3d. The disadvantage of most complement biomarkers is their short half-life, making reliable sample collection and measurements difficult. Unlike other C3 fragments, C3c does not bind to other structures like pathogens, cell surface (receptors) and other plasma proteins. Therefore, C3c is a stable complement biomarker which will appear in the fluid phase only, without interference of other C3 based products. C3 is primarily produced by the liver but is also generated in macrophages, neutrophils, endothelial and epithelial cells. Due to the high levels in circulation with low biological reactivity, C3 is able to act in a fast and potent way when danger by e.g. pathogens is encountered. Defects in C3 can be unfavorable to the host leading to recurrent infections or auto-immune diseases. Although rare, C3 deficiency has been reported. These patients suffer from recurrent infections of eg <i>S.pneumoniae</i> or <i>N.meningitidis</i> due to lack of opsonization, but also impaired DC and Treg development. Polymorphism in C3 has been associated with AMD and aHUS. Besides clearance of pathogens, C3 is also important in removal of circulating immune-complexes by assisting the phagocytic capacity of macrophages. Malfunction of this system can lead to development of auto-immune disease and complement deposition in tissues.
Product Categories/Family for anti-C3b antibody	Monoclonal antibodies

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/c3b-ic3b-c3c-antibody-clone-c3-16-4-western-blot-immunoassay-functional-assay-elisa/77824>