

**Antibody to Complement C3 (7C12)**
MOUSE MONOCLONAL

Catalog Number: AB-V84
Quantity: 100 micrograms
Format: PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), no preservative.
Host: Mouse
Isotype: IgG1
Clone: 7C12
Immunogen: Human C3b and iC3b bound to a carbohydrate matrix

Background: The complement system is a network of small proteins in the blood, primarily synthesized by the liver, that circulate as inactive precursors until activated by specific triggers. Proteolytic activation initiates a cascade that amplifies the immune response and culminates in formation of the membrane attack complex, which can lyse target cells. Complement component 3 (C3) is central to this process. Cleavage of C3 by C3 convertase generates C3b and iC3b, with C3b driving inflammation and covalently binding to microbial surfaces to promote opsonization.

Specificity & Preparation: This mouse IgG1 monoclonal antibody is generated against human complement component 3 (C3) and recognizes mouse and human homologs of C3 and breakdown products C3b, iC3b and C3d. 7C12 recognizes human C3b and iC3b similarly to 3E7, but does not block the alternative pathway.

Usage: Applications include western blot, immunoprecipitation, flow cytometry, and ELISA. Working dilutions must be determined by end user.

Storage: Store antibody at -20°C for one year. Avoid repeated freezing and thawing. Gently spin down material 5-10 seconds in a microfuge before use.

**Selected References:**

1. Lindorfer MA, Pawluczko AW, Peek EM, Hickman K, Taylor RP, Parker CJ (2010) A novel approach to preventing the hemolysis of paroxysmal nocturnal hemoglobinuria: both complement-mediated cytolysis and C3 deposition are blocked by a monoclonal antibody specific for the alternative pathway of complement. *Blood* 115(11):2283-2291. doi: 10.1182/blood-2009-09-244285 PMID: 20068220

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