

Hycult biotechnology

C3/C3b, Clone 3, Human mAb

Catalog No. HM2199 **Quantity:** 100 µg

Description: The monoclonal antibody 9 (also known as YB2/90-5-20) reacts with a neoantigen on iC3, iC3b, C3dg and C3g. C3g itself however is a small fragment probably not formed *in vivo*. The complement system is an important factor in innate immunity. The third complement component, C3, is central to the classical, alternative and lectin pathways of complement activation. Activation products of the complement cascade contain neo-epitopes that are not present in the individual native components. The synthesis of C3 is tissue-specific and is modulated in response to a variety of stimulatory agents. C3 is the most abundant protein of the complement system with serum protein levels of about 1.3 mg/ml. An inherited deficiency of C3 predisposes the person to frequent bacterial infections. C3 fragments are deposited in tissues at sites of antibody-mediated immunopathology. In ulcerative colitis and idiopathic chronic inflammatory bowel disease, the deposition of C3 in the diseased mucosa has been reported. Proteolysis by C3-convertases results in the cleavage of C3 into C3a and C3b. C3b becomes attached to immune complexes and is further cleaved into iC3b and C3f. iC3b is further processed into C3c and C3dg. C3dg can be cleaved into C3d and C3g though this does not occur in plasma. The monoclonal antibody 9 recognizes iC3b, C3dg and C3g in plasma. The monoclonal antibody does not recognize C3 or C3b.

Concentration: 100 µg/ml

Specificity: Human C3/C3b

Host: Rat

Isotype: IgG₁

Clone: 3

Formulation: 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.02% sodium azide and 1% bovine serum albumin. Precaution: Sodium azide is a poisonous and hazardous substance which should be handled by trained staff only.

Applications The monoclonal antibody 9 can be used for immuno assays and for immuno precipitation.



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Storage & Stability: Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.

References:

1. Lachmann, P et al; Three monoclonal antibodies to human C3. *Immunology* 1980, *41*: 503
2. Lachmann, P et al; Breakdown of C3 after complement activation. Identification of a new fragment C3g, using monoclonal antibodies. *J Exp Med* 1982, *156*: 205
3. Lachmann, P et al; Use of monoclonal anti-C3 antibodies to characterise the fragments of C3 that are found on erythrocytes. *Vox Sang* 1983, *45*: 367
4. Chaplin, H et al; Further studies of the C3g component of the alpha 2D fragment of human C3. *Clin Exp Immunol* 1983, *51*: 639
5. Mollnes, T et al; Activation of the third component of complement (C3) detected by a monoclonal anti-C3'g' neoantigen antibody in a one-step enzyme immunoassay. *J Immunol Methods* 1987, *101*: 201

Also available:

HM2072: Monoclonal antibody against Human C3/C3b, clone 755
HM2073: Monoclonal antibody against Human C3/C3a, clone 474
HM2074: Monoclonal antibody against Human C3a/C3a des-Arg (neo-epitope), clone 2991
HM2075: Monoclonal antibody against Human C3/C3a (C-terminus), clone 2898
HM2168: Monoclonal antibody against Human activated C3, clone bH6
HM2198: Monoclonal antibody against Human C3d, clone 3

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