CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	C3g, Human, clone 9		
Catalog number	HM2199-100UG		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Rat IgG1	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes						•	•	
No								
N.D.	•	•	•	•	•			•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

General Information

Description

The monocolonal 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.

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

Storage&stability

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

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC	Date
Brenda Teunissen	03/12/2019

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.