

# CERTIFICATE OF ANALYSIS - TECHNICAL DATA SHEET

**Product name** Activated C3, Human, clone bH6

Catalog number HM2168-20UG

Lot number xxxxxXxxxx-X Expiry date MMM YYYY

**Volume** 200 μl **Amount** 20 μg

Formulation 0.2 μm filtered in PBS+0.1%BSA+0.02%NaN3 Concentration 100 μg/ml

Host Species Mouse IgG2a Conjugate None

Endotoxin N.A. Purification Protein G

Storage 4°C

## **Application notes**

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	2					1,3,4,5		
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



IHC-F: frozen human tonsil sections. Antibody HM2168 was used in a 1:200 dilution.

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.

 IHC-F: Immunohistochemistry was performed with an automated, validated and accredited staining system (Ventana Benchmark ULTRA, Ventana Medical Systems, USA) using Ultraview or Optiview universal DAB detection Kit. Incubation was followed by hematoxylin II counter stain for 12 minutes and then a blue colouring reagent for 8 minutes according to the manufactures instructions.

# **General Information**

## Description

The monoclonal antibody bH6 recognizes a neo-epitope expressed on the cleavage fragments of C3b, iC3b, and C3c. 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. Monoclonal antibodies detecting neo-epitopes have been used for direct quantification of activation at different steps in the complement cascade. 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 assaults of bacterial infections. In ulcerative colitis, and idiopathic chronic inflammatory bowel disease, the deposition of C3 in the diseased mucosa has been reported. Proteolysis by certain enzymes results in the cleavage of C3 into C3a and C3b. C3b becomes attached to immune complexes and is further cleaved into iC3b, C3c, C3dg and C3f. The monoclonal antibody bH6 is specific for a C3 neo-epitope expressed on the cleavage fragments of C3b, iC3b, and C3c, but not C3dg and C3f.

### References

 Garred, P et al; Characterization of a monoclonal antibody MoAb bH6 reacting with a neo-epitope of human C3 expressed on C3b, iC3b, and C3c. Scand J Immunol 1988, 27: 319

Version: 10-2023



- 2. Halstensen T et al; Epithelial deposition of immunoglobulin G1 and activated complement (C3b and terminal complement complex) in ulcerative colitis. Gastroenterology 1990, 98: 1264
- 3. Garred P et al; Quantification in enzyme-linked immunosorbent assay of a C3 neo-epitope expressed on activated human complement factor C3. Scand J Immunol 1988, 27: 329
- Lappegård, K et al; Effect of complement inhibition and heparin coating on artificial surface induced leukocyte and platelet activation. Ann Thorac Surg 2004, 77: 932
- Rensen, S et al; Activation of the Complement System in Human Nonalcoholic Fatty Liver Disease. Hepatology 2009. 50: 1809

#### 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

Do you have any questions or comments regarding this product? Please contact us via <a href="mailto:support@hycultbiotech.com">support@hycultbiotech.com</a>.

Version: 10-2023