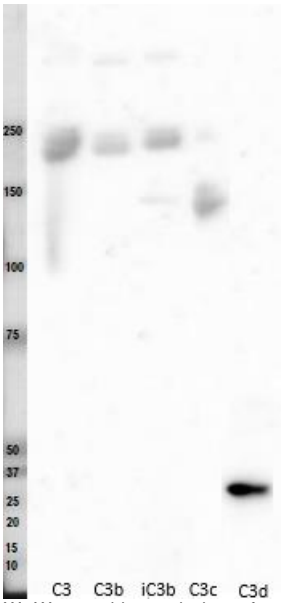
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Activated C3, Human, clone I3/15		
Catalog number	HM2257-20UG		
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 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



W: Western blot analysis performed with human C3, C3b, iC3b, C3c and C3d protein with antibody clone I3/15 (HM2257) at 2 µg/ml.

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.

- IA: adsorption of native C3 to a plastic surface can result in conformational modifications that may expose the antibody binding sites of the molecules.
- W: The antibody I3/15 recognizes native C3 after unfolding upon activation or after SDS treatment. Therefore the western blot has to be performed non-reduced. The band sizes are around ~190 kDa for C3, ~180 kDa for C3b, ~178 kDa iC3b, ~140 kDa for C3c and ~33 kDa for C3d.

General Information

Description The monoclonal antibody I3/15 recognizes activated complement protein C3, namely an neo-epitope on C3b, iC3b and C3dg which is not present in native C3. The antibody I3/15 recognizes native C3 after unfolding upon activation or after

SDS treatment. C3 is a 190 kD protein that plays an important role in the complement activation cascade. The molecule is central to the classical, alternative and lectin pathways of complement activation. 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. When activated, C3 is cleaved into two biologically active fragments known as C3a and C3b. C3a is a mediator of local inflammatory processes with anaphylatoxic properties. As such it induces smooth muscle contraction, increases vascular permeability, and causes histamine release from mast cells and basophilic leukocytes. C3b becomes attached to immune complexes and is further cleaved into iC3b, C3c, C3dg and C3f. The C3 fragments C3b, iC3b, C3dg and C3d are collectively termed activated C3 (act. C3). The most important function of C3 fragments is the interaction of the complement system with other immune cells. 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.

Aliases

C3, PZP-like alpha-2-macroglobulin domain-containing protein 1.

References

1. Oppermann, M et al; Quantitation of components of the alternative pathway of complement (APC) by enzyme-linked immunosorbent assays. J Immunol Methods 1990: *133*, 181
2. Oppermann, M et al; Elevated plasma levels of the immunosuppressive complement fragment Ba in renal failure. Kidney Int 1991: *40*, 939
3. Würzner, R et al; Complement activation and depletion during LDL-apheresis by heparin-induced extracorporeal LDL-precipitation (HELP). Eur J Clin Invest 1991: *21*, 288
4. Schuff-Werner, P et al; Heparin-induced extracorporeal LDL precipitation (HELP): rheological, hemostaseological and immunological effects. In Gotto, A et al; Treatment of severe hypercholesterolemia in the prevention of coronary heart disease, Basel, Karger 1990, *196*
5. Zwirner, J et al; A novel ELISA for the assessment of classical pathway of complement activation in vivo by measurement of C4-C3 complexes. J of Immunol Meth 1995, *186,* 55

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.

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Approved by Manager of QC

Date

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