

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name C5, Human, mAb 10B6

Catalog number HM2414-5MG

Lot number xxxxxXxxxx-X

Volume xx ml

Formulation 0.2 µm filtered in PBS

Host Species Mouse IgG1

Endotoxin <24 EU/mg

Storage 4°C

Expiry date MMM YYYY

Amount 5 mg

Concentration >0.5 mg/ml

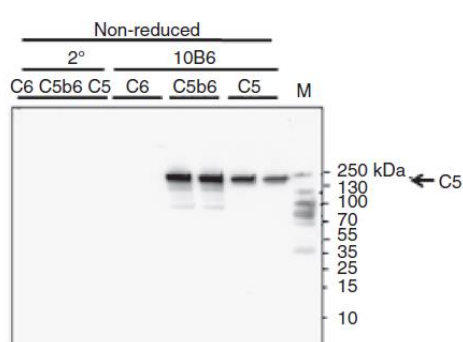
Conjugate None

Purification Protein G

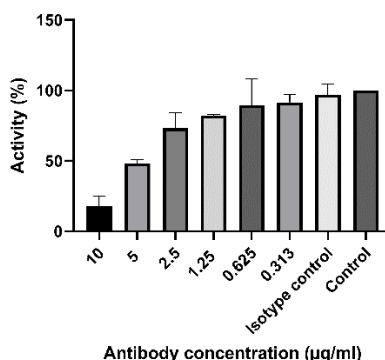
Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #					1	1		1
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 proteins(Ref 1); human C5, C5b6 and C6 were resolved on 4–20% PAGE gels under non-reducing conditions and detected with antibody 10B6 at 1 µg/ml. Band size is 190 kDa.



FS: Alternative pathway inhibition by anti C5 antibody (HM2414)

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.

- W: A non-reduced sample treatment and SDS-Page was used. The band size is 190 kDa (Ref.1).
- FS: The inhibition of the alternative pathway by HM2414, targeting C5, was evaluated at varying concentrations using pooled human serum within the HK3012 human Alternative Complement Pathway assay. An isotype control (MOPC-21, BioLegend) was also included to discern isotype-specific interactions. The pooled human serum served as a control.

General Information

Description

The complement system plays important roles in both innate and adaptive immune response and can produce an inflammatory and protective reaction to challenges from pathogens. Complement C5 is a central molecule in all three pathways and after cleavage by its convertases, it initiates the terminal pathway in order to generate the cytolytic MAC. C5 is mainly synthesised in the liver as a single polypeptide chain and is present in serum in a concentration of 50–80 µg/ml. Besides, local synthesis of C5 is also supported by other cell types including monocytes/macrophages, neutrophils, fibroblasts, and astrocytes. Before secretion the molecule is glycosylated and secreted into plasma as a 190 kDa glycoprotein consisting of a disulphide linked alpha-chain (111 kDa) and beta-chain (75 kDa).

The complement has become an interesting therapeutic target. Especially after the success of Eculizumab, a monoclonal antibody against C5, in the treatment for aHUS and PNH and the application in clinical trials for many other diseases. Monoclonal antibody #10B6 is human specific and acts as an equivalent of Eculizumab. The antibody recognizes the beta chain and competes for binding to the same epitope as Eculizumab. It shows high binding to C5 with a negligible off rate. Besides C5 the antibody also recognizes C5b6, but not C6. Using haemolytic assays shows efficient inhibition of AP as well as CP, with a comparable dose-response curve to Eculizumab in the CP.

Antibody #10B6 has been tested in western blotting, ELISA and functional studies (Ref. 1)

Immunogen	Human C5b6		
Aliases	-		
Gene	Gene name Complement C5	Entrez Gene ID 727	Uniprot P01031
Cross reactivity	No cross reactivity with rabbit, rat, mouse and guinea pig. (Ref 1.)		
References	1. Zelek, W.M., et al; Development and characterization of novel anti-C5 monoclonal antibodies capable of inhibiting complement in multiple species, 2019. Immunology, 157 , 283-295 (DOI: 10.1111/imm.13083)		
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

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