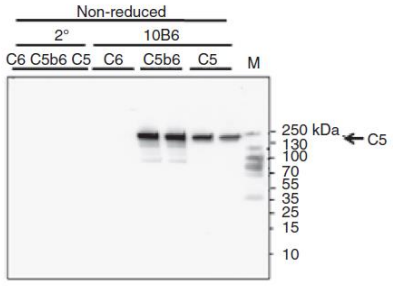
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	C5, Human, mAb 10B6		
Catalog number	HM2414-500UG		
Lot number	xxxxxXxxxx-X	**Expiry date**	MMM YYYY
Volume	xx ml	**Amount**	500 µg
Formulation	0.2 µm filtered in PBS	**Concentration**	>0.5 mg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	<24EU/mg	**Purification**	Protein G
Storage	4°C		

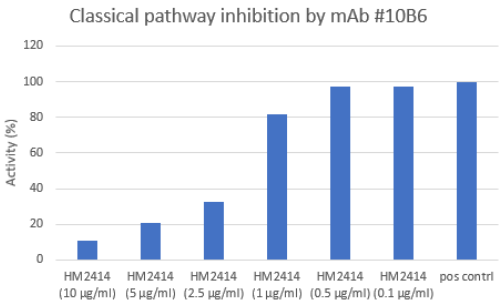
Application notes

	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: HM2414 inhibits membrane attack complex formation as determined in human classical pathway ELISA assay HK3010.

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: Antibody 10B6 functions as an inhibiting antibody.(Ref.1) The 50% complement inhibitory dose is dependent on the type of assay (e.g. haemolysis assay or pathway ELISA) and should be determined per institute in combination with a proper reference 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 µm/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)

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The information on this data sheet should neither be considered comprehensive or definitive.

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.

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	10/11/2022

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