

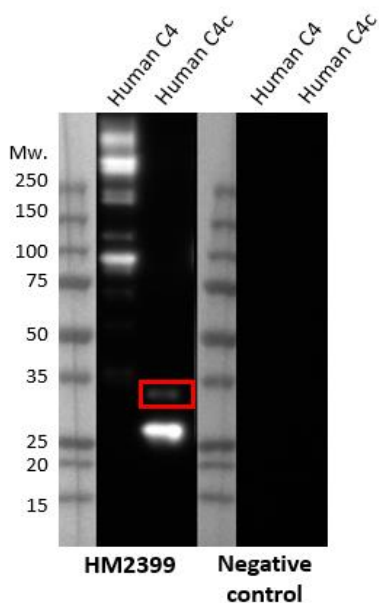
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	C4c/C4, Human, clone 99-72-18		
Catalog number	HM2399-100UG		
Lot number	xxxxxXxxxx	Expiry date	MMM YYYY
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	Mouse IgG2b, kappa	Conjugate	None
Endotoxin	N.A.	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: Human C4c and C4 protein were resolved on gel under reducing conditions and detected with antibody HM2399 at 2 µg/ml. Band sizes for C4 are ~200 kDa and C4c ~27 and 37 kDa.

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: HM2399 can be used as capture or detection antibody (Ref.1).
- W: The monoclonal HM2399 antibody can be used for Western blotting under reduced conditions. C4c can be detected at ~27 kDa and ~37 kDa under reduced conditions. C4 can be detected at ~200 kDa under non-reducing conditions and dissociates into three subunits under reducing conditions: an α chain (93 kDa), a β chain (78 kDa), and a γ chain (33 kDa). However, additional bands are observed, which likely correspond to higher molecular weight species or post-translationally modified forms.

General Information

Description	<p>Antibody clone 99-72-18 recognizes human complement fragment C4c and C4. C4c reflects the degree of complement activation via the classical and lectin pathway. 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 before an adaptive response can occur. It consists of a complex family of proteins and receptors which are found in the circulation, in tissues and other body-fluids. There are three pathways of complement activation. The classical pathway is initiated by Immune complexes; the lectin pathway by surface bound lectins; and the AP by all the surfaces that are not specifically protected against it. The C3 and C5 convertases are enzymatic complexes that initiate and amplify the activity of the complement pathways and ultimately generate the cytolytic MAC. Initiation of the CP & LP leads to activation of C4 and C2. The arising anaphylotoxins activate the immune system. The larger fragments interact with cell surfaces, receptors, immune complexes or other complement proteins. This way among others the C3 convertase (C4b2b) is formed. The complement system is involved in a number of diseases like transplantation rejection, kidney diseases, AMD and inflammatory diseases. Therefore complement fragments serve as biomarkers for many of these diseases. C4 is a glycoprotein consisting of an alpha chain, beta chain and gamma chain. Activation yields C4a and C4b. C4b is inactivated by factor I in the presence of C4bp resulting in C4c and C4d. Thus soluble C4c is a measure of complement activation.</p>
References	<ol style="list-style-type: none">1. Pilely, K. et al; A specific assay for quantification of human C4c by use of an anti-C4c monoclonal antibody. J Immunol method 2014, 405: 87
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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