

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	C4d, Mouse, pAb	Expiry date	-
Catalog number	HP8033	Amount	100 µg
Lot number	-	Concentration	100 µg/ml
Volume	1 ml	Conjugate	None
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	Purification	Protein G
Host species	Rabbit IgG		
Endotoxin	N.A.		
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

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.

General Information

Description	The polyclonal antibody recognizes mouse C4d. Complement factor C4 (MW 41 kDa), formerly known as Gg protein, consists of an alpha-, beta- and gamma-chain. The classical pathway of complement and the mannose binding lectin (MBL) activation pathway converge at C4. Activated C1, MASP-1 and MASP-2 cleave C4 resulting in the formation of C4a and C4b. The latter can be cleaved by factor I resulting in C4c and C4d, in which step all functional sites are lost. The C4d activation fragment of C4 is an excellent marker for classical complement pathway and MBL pathway activation. The thioester formed between the side chains of Cys1010 and Gln1013 within the C4d region of the α-chain mediates covalent attachment to the target surface bearing activated forms of C1s or MASP. Furthermore, C4d is highly homologous to C3d with over 35% shared amino acid sequence. In a number of diseases such as rheumatoid arthritis (RA), hereditary angioedema (HAE), systemic lupus erythematosus (SLE) and chronic urticaria with hypercomplementemia levels of C4d are significantly elevated in serum or plasma. C4d levels may also be elevated in plasma from patients with a variety of humoral autoimmune diseases in which complement activation is known to occur. Deposition of C4d in peritubular capillaries has been shown to be a sensitive marker for antibody-mediated (humoral) rejection in renal transplant biopsies.
Immunogen	A synthesized 14-mer peptide (RPTAPRSPTEPVQ) corresponding to amino acids 1223-1236 of mouse C4, conjugated to keyhole limpet hemocyanin at the C-terminal part (for this a cysteine was added)
Cross reactivity	Mouse C4: Yes; Mouse C4b: Yes
References	<ol style="list-style-type: none"> Murata, K et al; Synergistic deposition of C4d by complement-activating and non-activating antibodies in cardiac transplants. <i>Am J Transplant</i> 2007, 7: 2605 Jindra, P et al; Anti-MHC class I antibody activation of proliferation and survival signaling in murine cardiac allografts. <i>J Immunol</i> 2008, 180: 2214 Morrell, C et al; In vivo platelet-endothelial cell interactions in response to major histocompatibility complex alloantibody. <i>Circ Res</i> 2008, 102: 777
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
Robbert Zwinkels

Date
13/03/2018

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