

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	CD55, Mouse, clone 3D5	Expiry date	-
Catalog number	HM1115-20UG		
Lot number	-	Amount	20 µg
Volume	200 µl	Concentration	100 µg/ml
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	Conjugate	None
Host Species	Rat IgG2a	Purification	Protein G
Endotoxin	N.A.		
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #		5		2		5		1,2,3,6
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.

- IA: HM1115 was used as a detection antibody in a direct ELISA (plates coated with mouse CD55. The concentration of HM1115 used was 2µg/ml.
- W: Proteins were separated by SDS-PAGE, transferred to nitrocellulose membranes and blocked with Tris-buffered saline containing 0.05% Tween 20 (TBST), 3% non-fat dried milk and 3% BSA (Ref 1).
- P: A mixture of 3D5 and another antibody was used. Colon segments were fixed overnight in 10% Formalin, embedded in paraffin blocks, and cut into 5 µm sections. Sections were stained with H&E (Ref.5).

General Information

Description	The monoclonal antibody 3D5 recognizes complement decay accelerating factor (DAF), also designated as CD55. Cells express on their surface several proteins which protect against complement attack, namely C receptor I (CR1), decay accelerating factor, membrane cofactor protein (MCP) and CD59. CR1, CD55 and MCP regulate the activation pathways of complement by either accelerating decay of the C3 and C5 convertase (CR1, CD55), or acting as cofactors for the serine protease factor I, which cleaves and irreversibly inactivates C3b (CR1, MCP). Mouse CD55 is a 60 kDa transmembrane protein that binds C3b and C4b to inhibit formation and half-life of the C3 convertases. CD55 is broadly distributed among cells in contact with serum, including both haematopoietic and nonhaematopoietic cells. Although CD55 does not have an essential role in controlling hemolysis of erythrocytes, it has an important role in regulation of the deposition of C3 on nucleated cells. Together with other complement regulators CD55 protects self-cells from autologous complement-mediated injury. CD55 cooperates with CD46 in circumventing autologous C3 deposition, while CD59 inhibits the pathway at the critical end-point.
Immunogen	NRK cells expressing transmembrane-anchored mouse DAF
Aliases	Complement decay-accelerating factor, GPI-anchored, DAF-GPI
Gene	Gene name: Cd55, Cd55a, Daf, Daf1
References	<ol style="list-style-type: none"> 1. Spiller, O et al; Efficient generation of monoclonal antibodies against surface-expressed proteins by hyperexpression in rodent cells. J Immunol Meth 1999, 224: 51 2. Harris, C et al; Human and rodent decay-accelerating factors (CD55) are not species restricted in their complement-inhibiting activities. Immunol 2000, 100: 462 3. Lin, F et al; Tissue distribution of products of the mouse decay-accelerating factor (DAF) genes. Exploitation of a Daf1 knock-out mouse and site-specific monoclonal antibodies. Immunol 2001, 104: 215 4. Spiller, O et al; Echoviruses and coxsackie B viruses that use human decay-accelerating factor (DAF) as a receptor do not bind the rodent analogues of DAF. J of Infect Dis 2000, 181: 340 5. Lin, F et al; Decay-Accelerating Factor Deficiency Increases Susceptibility to Dextran Sulfate Sodium-Induced Colitis: Role for Complement in Inflammatory Bowel Disease. J Immunol 2004, 172: 3836

6. Kinderlerer, A et al; Heme oxygenase-1 expression enhances vascular endothelial resistance to complement-mediated injury through induction of decay-accelerating factor. A role for increased bilirubin and ferritin. Blood 2008

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
Brenda Teunissen

Date
11/11/2020

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