

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	CD46, Rat, clone MM.1	Expiry date	-
Catalog number	HM3038-20UG		
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	Mouse IgG1	Purification	Protein G
Endotoxin	N.A.		
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	1-3		2-4			1		1,4
Yes	•		•			•		•
No								
N.D.		•		•	•		•	

N.D.= Not Determined; IHC = Immunohistochemistry; 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.

- Positive control W: non-reducing conditions, band size 38 kDa (Ref. 1 and 4).

General Information

Description	The monoclonal antibody MM.1 recognizes CD46, also known as membrane cofactor protein. An immunohistological survey of rat tissues revealed that CD46 is expressed only in the testis and epididymis of adult rats more specifically, only by spermatozoa and late spermatozoal precursors. In contrast, in humans, CD46 is expressed on every cell and tissue, with the exception of erythrocytes. CD46 serves to down-regulate the activation of complement on host tissue. It functions as a cofactor by binding to C3b and C4b. Binding is permitted by factor I, a serine protease of plasma, to degrade C3b and C4b and serves to protect the host cell against autologous attack. In human, it also serves as a receptor for measles virus. Two isoforms of CD46 predominate and arise by alternative splicing of a single CD46 gene. The isoforms differ in the length. CD46 cDNA encodes a signal sequence followed by four complement control protein domains (also called short consensus repeats (SCR)).
Immunogen	Second and third SCR domains of MCP fused to IgG-Fc; MCP23-Ig
Aliases	Membrane cofactor protein
References	<ol style="list-style-type: none"> 1. Mizuno, M et al. Rat membrane cofactor protein (MCP; CD46) is expressed only in the acrosome of developing and mature spermatozoa and mediates binding to immobilized activated C3. <i>Biol reprod</i> 2004, <i>71</i>: 1374 2. Mizuno, M et al. Expression of CD46 in developing rat spermatozoa: ultrastructural localization and utility as a marker of the various stages of the seminiferous tubuli. <i>Biol reprod</i> 2005, <i>72</i>: 908 3. Mizuno, M et al. Spermatogenic cells distal to the blood-testis barrier in rats lack C3 convertase regulators and may be at risk of complement-mediated injury. <i>J Reprod Immunol</i> 2006, <i>69</i>: 23 4. Mizuno, M et al. CD55 in rat male reproductive tissue: differential expression in testis and expression of a unique truncated isoform on spermatozoa. <i>Mol Immunol</i> 2007, <i>44</i>: 1613
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
11/01/2021

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