

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	CD59 Glycoprotein, Rat, clone TH9	<b>Expiry date</b>	-
<b>Catalog number</b>	HM3037-20UG		
<b>Lot number</b>	-	<b>Amount</b>	20 µg
<b>Volume</b>	200 µl	<b>Concentration</b>	100 µg/ml
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA	<b>Conjugate</b>	None
<b>Host Species</b>	Mouse IgG1	<b>Purification</b>	Protein G
<b>Endotoxin</b>	<24 EU/mg		
<b>Storage</b>	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**

<b>Description</b>	The monoclonal antibody TH9 recognizes rat CD59. Rat CD59 was previously known as rat inhibitory protein (RIP) and it is a potent inhibitor of the complement membrane attack complex (MAC) action. CD59 regulates the formation and function of the lytic C5b-9 complex by binding C8 and preventing the unfolding and membrane insertion of C9 and by binding C9 and restricting its polymerization. CD59 is a small (18 - 25 kDa) molecule, linked to the cell membrane through a glycosyl phosphatidylinositol (GPI) anchor and comprising 77 amino acids with a single N-linked carbohydrate group at Asn-18. Analogues of CD59 can be found in all species with similar structures and sizes. In rat, CD59 is expressed on vacular endothelium and circulating cells. In the central nervous system (CNS) of the rat, CD59 is expressed on the Schwann sheath of peripheral nerve fibres and on ependymal cells, but not on glial cells and neurons in the CNS. Rat astrocytes in vitro express CD59 on its surface. CD59 may be involved in rheumatoid arthritis, motor nerve injury in the Guillain-Barré syndrome and in other diseases where defective inhibition of complement activation on self-tissue is involved. Furthermore, CD59 may play an important part in abrogating the effects of complement attack in renal disease. Its presence and protective effect have already been demonstrated on human renal cells.
<b>Immunogen</b>	Partially purified (FPLC) rat CD59 prep (RIP)
<b>Aliases</b>	Membrane attack complex inhibition factor, MACIF, MAC-inhibitory protein, Protectin, CD59
<b>References</b>	<ol style="list-style-type: none"> <li>Hughes, T et al; Isolation and characterization of a membrane protein from rat erythrocytes which inhibits lysis by the membrane attack complex of rat complement. <i>Biochem J</i> 1992, <i>284</i>: 169</li> <li>Hughes, T et al; Immunolocalization and characterization of the rat analogue of human CD59 in kidney and glomerular cells. <i>Immunology</i>. 1993, <i>80</i>: 439</li> <li>Rogers, C et al; Expression and function of membrane regulators of complement on rat astrocytes in culture. <i>Immunology</i> 1996, <i>88</i>: 153</li> </ol>
<b>Storage&amp;stability</b>	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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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](mailto:support@hycultbiotech.com).