

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	C5aR, Rat, clone R63		
<b>Catalog number</b>	HM3017-20UG		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	200 µl	<b>Amount</b>	20 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Mouse IgG1	<b>Conjugate</b>	None
<b>Endotoxin</b>	N.A.	<b>Purification</b>	Protein G
<b>Storage</b>	4°C		

**Application notes**

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	1,2,5,6		1,3,4	1,2,3	2	2		5,6
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.

- IHC-F: 7µm frozen paraformaldehyde fixed sections were blocked with serum and incubated with mAb at 5 µg/ml.
- FC: 2x10<sup>5</sup> cells were incubated with mAb at 3-5µg/ml, all incubations on ice.
- W: cell homogenate was separated on 10% SDS-PAGE and blotted on nitrocellulose. After blocking blot was incubated with mAb (1/500-1000).

**General Information**

**Description** The monoclonal antibody R63 reacts with the rat receptor for C5a (CD88). The rat anaphylatoxin C5a is a 77-amino acid glycopolypeptide which is generated by proteolytic cleavage of the complement factor C5 in the course of complement activation. A variety of biological effects evoked by C5a has been demonstrated, rendering this molecule an important mediator of inflammation, with granulocytes and macrophages as the main target cells. All cellular responses to C5a are specifically mediated by interactions with the membrane bound C5a receptor, a seven transmembrane GTP-binding-protein-coupled receptor that belongs to the rhodopsin supergene family. The 45 kDa C5a receptor is expressed by myeloid cells including Kupfer cells. Using immunohistology there is no evidence for non-myeloid expression in healthy control rats. Under inflammatory situations however the C5aR was found to be upregulated in various organs and tissues including the liver.

**Immunogen** RBH-2H3 cells transfected with rat C5aR gene

**Aliases** C5aR; CD88; C5a anaphylatoxin chemotactic receptor; C5a anaphylatoxin receptor; C5a ligand; C5a-R; complement component 5a receptor 1

- References**
- Schlaf, G et al; Differential expression of the C5a receptor on the main cell types of rat liver as demonstrated with a novel monoclonal antibody and by C5a anaphylatoxin-induced Ca<sup>2+</sup> release. Lab Invest 1999, 79: 1287
  - Rothermel, E et al; Analysis of the tissue distribution of the rat C5a receptor and inhibition of C5a-mediated effects through the use of two MoAbs. Scand J Immunol 2000, 52: 401
  - Schieferdecker, H et al; Induction of functional anaphylatoxin C5a receptors on hepatocytes by in vivo treatment of rats with IL-6. J Immunol 2000, 164: 5453
  - Griffin, R et al; Complement induction in spinal cord microglia results in anaphylatoxin C5a-mediated pain hypersensitivity. J. Neurosc. 2007, 27: 8699
  - Woodruff, T et al; The complement factor C5a contributes to pathology in a rat model of amyotrophic lateral sclerosis. J Immunol 2008, 181: 8727
  - Crane, J et al; The C5a anaphylatoxin receptor CD88 is expressed in presynaptic terminals of hippocampal mossy fibres. J Neuroinflammation 2009, 6: 34

**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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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  
14/07/2021

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).