

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	C5aR, Mouse, clone HM20/70		
Catalog number	HM1076-20UG		
Lot number	-	Expiry date	-
Volume	200 µl	Amount	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA	Concentration	100 µg/ml
Host Species	Rat IgG2b	Conjugate	None
Endotoxin	<24 EU/mg	Purification	Protein G
Storage	4°C		

Application notes

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

- FC: 2x10⁵ cells were blocked with human and murine IgG on ice for 20'. Cells were stained with 10µg antibody 20/70 for 45' in PBS/1.5%FCS. For analysis with FACS cells were washed with PBS/1%formaldehyde (Ref.2).
- FS: Before migration towards C5a was induced, 2x10⁵ cells were incubated for 30' with 10µg antibody 20/70 in a transwell migration assay (Ref.2).
- IF: Cells were cultured on coverslips, fixed with 4% PFA for 20', blocked with 3% BSA for 2h and stained with antibody 20/70 for 2h (Ref.6).
- Positive control: Mouse neutrophils; Negative control: HEK293 cells.

General Information

Description	The monoclonal antibody 20/70 recognizes the mouse receptor for C5a (CD88). The mouse anaphylatoxin complement factor C5a, a split product of C5, is one of the most potent inflammatory chemoattractants and interacts with two C51 receptors, C5aR and C5L2. Most of the C5a effects are mediated through C5aR. C5aR is known to be crucial in the initiation of acute inflammatory responses. C5a receptor is a seven transmembrane GTP-binding-protein-coupled receptor that belongs to the rhodopsin supergene family. The 45 kDa C5a receptor is expressed by leukocytes such as neutrophils, eosinophils, basophils, monocytes, dendritic cells and mast cells. C5aR can be expressed on both immune and nonimmune cells. Nonimmune cells expressing C5aR include vascular endothelial cells, cardiomyocytes and bronchial epithelial cells. Signaling of C5aR involves intracellular calcium mobilization and activation of among others protein kinase B (PKB) and protein phospholipase D (PLD) pathways. High C5aR expression levels have been associated with the pathogenesis of many inflammatory conditions, autoimmune and neurodegenerative diseases like rheumatoid arthritis, multiple sclerosis, atherosclerosis and inflammatory bowel diseases. In vivo blockade of C5aR greatly reduces inflammatory injury. The monoclonal antibody 20/70 has been used in functional studies and is capable to prevent the binding of C5a to its receptor.
Immunogen	RBL-2H3 transfectants expressing murine C5aR on the cell surface.
Aliases	C5a anaphylatoxin chemotactic receptor 1, C5a anaphylatoxin chemotactic receptor, C5a-R
Gene	Gene name: C5ar1
References	<ol style="list-style-type: none"> 1. Shushakova, N et al; C5a anaphylatoxin is a major regulator of activating versus inhibitory FcγRs in immune complex-induced lung disease. <i>J Clin Invest</i> 2002, <i>110</i>: 1823 2. Soruri, A et al; Characterization of C5aR expression on murine myeloid and lymphoid cells by the use of a novel monoclonal antibody. <i>Immunol Lett</i> 2003, <i>88</i>: 47 3. Godau, J et al; C5a initiates the inflammatory cascade in immune complex peritonitis. <i>J Immunol</i> 2004, <i>173</i>: 3437 4. Chen, NJ et al; C5L2 is critical for the biological activities of the anaphylatoxins C5a and C3a. <i>Nature</i> 2007, <i>446</i>: 203 5. Rittirsch, D et al; Functional roles for C5a receptors in sepsis. <i>Nat Med</i> 2008, <i>14</i>: 551

6. Gueler, F et al; Complement 5a Receptor inhibition improves renal allograft survival. J Am Soc Nephrol 2008, 19: 2302

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
28/10/2020

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