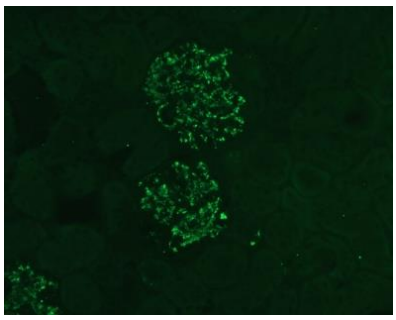
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	C3b/iC3b/C3c, Mouse, clone 3/26		
Catalog number	HM1078-100UG		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA	**Concentration**	100 µg/ml
Host Species	Rat IgG2a	**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 #	1,2,4			1	1	1,3		
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



IF: C3 deposition on glomeruli derived from MRL-Lpr mouse. Staining of frozen tissue section with antibody 3/26. Anti-mouse C3 at 2µg/ml (1h, RT) resulted in the specific staining of activated C3 on glomerular basement membrane.

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: Antibody 3/26 stains deposited C3 fragments on the surface of cells. As positive control splenocytes were used and as negative control isotype control rat IgG2a. (Ref.1)
- W: A non-reduced sample treatment and SDS-PAGE was used. The band size is ~185 kDa (Ref.1).
- IHC-F: Tissue sections were fixed in acetone and pretreated with 3% hydrogen peroxide in methanol at RT to quench endogenous peroxidases. As positive control kidney derived from mice treated with anti-glomerular basement membrane antibodies was used and as negative control C3-/- mice kidney (Ref.1).
- FS: The monoclonal antibody 3/26 inhibits the hemolytic activity of mouse complement in a dose-dependent manner. The biological activity of the antibody can be defined as the amount of antibody necessary for inhibition of hemolysis (Ref.1).
- W: Blot is blocked with skimmed milk and incubated with culture supernatant (1:10) for 1h at RT.
- Positive control: Zymosan activated mouse serum; Negative control: C3-/- mouse.

General Information

Description

The monoclonal antibody 3/26 recognizes mouse complement protein activated C3 fragments C3b, iC3b, and C3c. The complement system is an important factor in innate immunity. The third complement component, C3, is central to the classical, alternative and lectin pathways of complement activation. C3 is the most abundant protein of the complement system with serum protein levels of about 1.3 mg/ml. Proteolysis by certain enzymes results in the cleavage of C3 into C3a and C3b. C3b becomes attached to immune complexes and is further cleaved into iC3b, C3c, C3dg and C3f. Activation products of the complement cascade contain neo-epitopes that are not present in the individual native components.

The synthesis of C3 is tissue-specific and is modulated in response to a variety of stimulatory agents. An inherited deficiency of C3 predisposes the person to frequent assaults of bacterial infections. In ulcerative colitis, and idiopathic chronic inflammatory bowel disease, the deposition of C3 in the diseased mucosa has been reported.
The monoclonal antibody 3/26 preferably recognizes cleaved C3 fragments C3b, iC3b, and C3c. In case of an acute inflammatory reaction lots of C3 are processed into the products recognized by 3/26 and is as such useful as marker for inflammatory reaction. In chronic inflammatory conditions minimal reactivity with 3/26 may observed. In such cases primarily the C3dg product resides at the place of inflammation (C3c being cleared) which is not recognized by antibody 3/26. The chronic processing/activation of C3 is taking place at a lower level, which would reduce detection of the C3 fragments C3b, iC3b, and C3c.

Immunogen Purified mouse C3

Aliases Complement C3; ASP; Plp; HSE-MSF; AI255234

References

1. Mastellos, D et al; Novel monoclonal antibodies against mouse C3 interfering with complement activation: description of fine specificity and applications to various immunoassays. Mol Immunol 2004, *40*: 1213
2. Markiewski, M et al; C3a and C3b activation products of the third component of complement (C3) are critical for normal liver recovery after toxic injury. J Immunol 2004, *173*: 747
3. Cecic, I et al; Characteristics of complement activation in mice bearing Lewis lung carcinomas treated by photodynamic therapy. Cancer Lett 2005, *225*: 215
4. Heurich, B et al; Complement upregulation and activation on motor neurons and neuromuscular junction in the SOD1 G93A Mouse model of familial amyotrophic lateral sclerosis. J Neuroimmunol 2011, *235*:104-109

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	Date
Brenda Teunissen	12/11/2019

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