CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	MASP-1/3, Human, clone 1E2		
Catalog number	HM2092-100UG		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	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 1:10.

- W: the antibody is useful for Western blotting of non-reduced samples.
- IA: HM2092 can be used as coating antibody.

General Information

Description

Three pathways of complement activation have been reported: the antibody-dependent classical pathway, the antibody-independent alternative pathway and the lectin pathway. Activation of each pathway involves formation of serine protease complexes, which results in activation of the central complement component C3. In the lectin pathway, mannose binding-lectin (MBL)-associated serine proteases (MASP) form complexes with polymeric lectin molecules which are involved in pattern recognition. Upon binding of the recognition molecules to carbohydrates on the surface of microorganisms, MASP are converted to their active forms and initiate complement activation. Three types of human MASP have been reported. MASP-1, MASP-2 and MASP-3. MASP-1 appears to cleave the second complement component C2, but not C4. The proteolytic activities of MASP-1 are inhibited by C1-inhibitor. Furthermore MASP-1 has a reactivity profile very similar to that of thrombin. MASP-1 is able to catalyse the formation of cross-linked fibrin. Participation of MASP-1 in cross-linked fibrin clot formation causes release of a chemotactic factor representing a biologically significant activity of MASP-1. The alternative-splicing product from MASP-1 gene is called MASP-3. MASP-1 is associated with smaller MBL oligomers whereas MASP-3 is found on larger oligomers. The substrate of MASP-3 is unknown. The antibody recognizes the heavy chain common to both MASP-1 and MASP-3.

References

1. Matsushita, M et al; Activation of the lectin complement pathway by ficolins. Int Immunopharmacol 2001, *1:* 359
2. Matsushita, M et al; Activation of the lectin complement pathway by H-ficolin (Hakata antigen). J of Immunol 2002, 168: 3502
3. Hajela, K et al; The biological functions of MBL-associated serine proteases (MASPs). Immunobiol 2002, *205*: 467
4. Schwaelble, W et al; The mannan-bonding lectin-associated serine proteases (MASPs) and Map19: four components of the lectin pathway activation complex encoded by two genes. Immunobiol 2002, *205*: 455
5. Endo, Y et al; Functional characterization of human mannose-binding lectin-associated serine protease (MASP)-1/3 and MASP-2 promoters, and comparison with the C1s promoter. Int Immunol 2002, *14*: 1193
6. Kuraya, M et al; Expression of H-ficolin/Hakata antigen, mannose-binding lectin-associated serine protease (MASP)-1 and MASP-3 by human glioma cell line T98G. Int Immunol 2003, *15*: 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	02/12/2019

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