CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

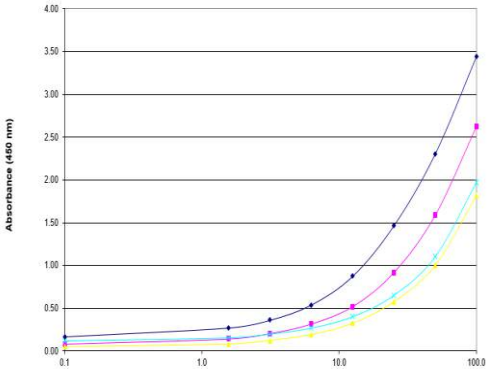
Product name	MASP-2/MAP19, Human, clone 6G12		
Catalog number	HM2191-20UG		
Lot number	-	**Expiry date**	-
Volume	200 µl	**Amount**	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Rat IgG1	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

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

W: Western blot with HM2191. Recombinant MASP-2 was used and the expected band of approximately 75 kDa was obtained.



IA: Immuno assay experiment with HM2191 as detection antibody. HM2191 was used with a biotin label.

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.

- IA: the antibody can be used as detection antibody.
- W: Both reduced and non-reduced can be performed. The expected band size for MASP-2 is approximately 75 kDa and for Map19 approximately 20 kDa.

General Information

Description

The monoclonal antibody 6G12 reacts with human MASP-2 and human MAp19. MASP-2 is a trypsin-like serine protease and plays an important role in the initiation of the MBL complement activation pathway. 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 (MASPs) 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, MASPs 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. Mannan-binding lectin (MBL) and ficolins, in complex with MBL-associated serin proteases (MASPs), are capable of activation the complement system, thus mediating the destruction of infectious agents. MASP-2 cleaves C4 and C2 and is crucial for the activation of downstream complement components. MAp19 is an alternative splicing product of the MASP-2 gene. MAp19 comprises the first two domains of MASP-2 followed by an extra sequence of four unique amino acids (EQSL) at its C-terminal. MASP-2

and MAp19 have been reported to bind to MBL in a calcium-dependent manner. The monoclonal antibody 6G12 reacts with high affinity to the N-terminal end of MASP-2 and Map19.

Immunogen rMAp19 (Ref.1)

References

1. Moller-Kristensen, M et al; Levels of mannan-binding lectin-associated serine protease-2 in healthy individuals. J Immunol 2003, *282*: 159
2. Krarup, A et al; L-ficolin Is a Pattern Recognition Molecule Specific for Acetyl Groups*. JBC 2004, 46: 47513
3. Ameye, L et al; M-ficolin levels are associated with the occurrence of severe infections in patients with haematological cancer undergoing chemotherapy. Clin Exp Imm 2011, *167*:303
4. Zacho, R et al; Studies of the Pattern Recognition Molecule H-ficolin. JBC 2012, *11*: 8071
5. Damgaard Sandahl, T et al; The lectin pathway of the complement system is downregulated in Crohn's disease patients who respond to anti-TNF-α therapy. J Crohn Col 2013, *8*:521
6. Man-Kupisinska, A et al; A New Ligand-Based Method for Purifying Active Human Plasma-Derived Ficolin-3 Complexes Supports the Phenomenon of Crosstalk between Pattern-Recognition Molecules and Immunoglobulins. PLoS ONE 2016, *11*: e0156691

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	14/07/2021

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