CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Complement Factor I, Human, clone MBI-1		
Catalog number	HM2319-20UG		
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	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 1:50.

- W: A non-reduced and reduced sample treatment and SDS-Page was used. The band size is 66 kDa is samples are non-reduced. Reduced samples have a band size of 40 kDa.
- IA: the antibody can be used as coat and detector.

General Information

Description

The monoclonal antibody MBI-1 recognizes Complement Factor I (CFI). CFI is a protein of the complement system (serine protease) , also known as as C3b/C4f inactivator, and is a protein that is encoded by the CFI gene, located on chromosome 4. It regulates complement activation by cleaving cell bound or fluid phase C3b and C4b. CFI is synthesized mostly in the liver, and is initially secreted as a single 88 kDa gene product; this precursor protein is then cleaved by furin to yield the mature CFI protein, which is a disulfide-linked dimer of heavy chain residues (residue 19-335, 51 kDa) and light chain (residues 340-583, 37 kDa). Only the mature protein is active. genetic polymorphism in CFI has been observed (variants R201S, R406H, R502L). CFI deficiency leads to low levels of complement component 3 (C3) in plasma, due to unregulated activation of the complement alternative pathway, and it has been associated with recurrent bacterial infections in children; more recently, mutations in the CFI gene have been shown to be implicated in development of Haemolytic Uremic Syndrome, a renal disease also caused by unregulated complement activation. The monoclonal antibody can be used to detect CFI levels in serum, plasma.

Immunogen

Complement factor I

References

1. Alba-Domínguez et al. Complement factor I deficiency: a not so rare immune defect. Characterization of newmutations and the first large gene deletion Orphanet Journal of Rare Diseases 2012, *7*:42
2. Broderick, L et al; Mutations of Complement Factor I and Potential Mechanisms of Neuroinflammation in Acute Hemorrhagic Leukoencephalitis J Clin Immunol (2013) 33:*162*–171
3. Nilssona,S et al; Complement factor I in health and disease Molecular Immunology 48 (2011) *1611*–1620
4. Roversi, P et al; Structural basis for complement factor I control and its disease-associated sequence polymorphisms PNAS 2011 108:*31*:12839–12844

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	28/12/2020

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