CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Complement Factor B, Human, Natural		
Catalog number	HC2129		
Lot number	-	**Expiry date**	-
Volume	0.25 ml	**Activity**	BH50 U/mg
Formulation	PBS, pH 7.2	**Amount**	~250 µg
Host Species	Human, isolated from healthy blood donors	**Concentration**	~1 mg/ml
Endotoxin	N.A.	**Purification**	N.A.
Storage	-70°C	**Purity**	>90%

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

Human blood test results	
HBsAg	negative
HTLV-I/II	negative
Anti-HCV	negative
Anti-HIV 1 and II	negative

The blood donors have been tested and found negative for various viruses.

For functional studies, in vitro dilutions have to be optimized in user's experimental setting.

- The biological activity of Factor B is defined as the amount of Factor B required to yield 50% lysis of sensitized erythrocytes (EA).

General Information

Description Factor B is an acute-phase protein. Levels of factor B increase during inflammation. Complement factor B is a single-chain molecule of 764 amino acids (MW of 90 kD), including a leader peptide of 25 amino acids. Factor B provides the catalytic subunit of the C3/C5 convertases of the alternative complement pathway. Assembly of the C3 convertase (C3bBb) requires binding of factor B to C3b ($C3.H_2O$) and factor D-mediated cleavage of bound factor B resulting in the release of Ba (MW 33 kD). The C3 convertase is stabilized by the binding of properdin. This provides a positive amplification loop for the classical and alternative complement pathways. Bb (MW 60 kD) is the serine protease element of this convertase. After cleavage of C3, the C5 convertase ($(C3b)_2Bb$) is formed. The Bb fragment may be regarded as a better indicator of the alternative pathway of complement activation than Ba as impaired renal filtration does directly influence Ba levels. Whereas Bb is elevated 2.2-fold in chronic renal failure (CRF) patients, plasma concentrations of Ba are 8.4-fold higher in CRF and 16-fold higher in end-stage renal disease (ESRD) patients compared to normals. In addition to complement activation, factor B fragments participate in other immunological functions.

Cross reactivity Trace amounts of IgG, IgM, IgA, albumin, C2, C3, C4, Factor H or Factor I

Storage&stability Product should be stored at –70°C. Repeated freeze and thaw cycles will cause loss of activity. Use Complement factor B protein within 24 hours after thawing and keep on ice. Remainder amounts should be aliquoted and immediately re-freezed for future use. Aliquots should never be thawed more than once. 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
Robbert Zwinkels	30/03/2018

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