

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	Complement factor B/Ba, Human, clone P21/15		
<b>Catalog number</b>	HM2254-20UG		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	200 µl	<b>Amount</b>	20 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Mouse IgG2a	<b>Conjugate</b>	None
<b>Endotoxin</b>	N.A.	<b>Purification</b>	Protein G
<b>Storage</b>	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.

**General Information**

**Description** The monoclonal antibody P21/15 recognizes human complement factor B/Ba. 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 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.H2O) 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.

**References**

1. Oppermann, M et al; Complement in patients with renal failure as detected through the quantitation of fragments of the complement proteins C3, C5 and factor B. *Klin Wochenschr* 1988, 66: 857
2. Oppermann M. et al; Quantitation of components of the alternative pathway of complement (APC) by enzyme-linked immunosorbent assays. *J Immunol Methods* 1990, 133: 181
3. Oppermann M. et al; Elevated plasma levels of the immunosuppressive complement fragment Ba in renal failure. *Kidney Int* 1991, 40: 939

**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  
Brenda Teunissen

Date  
14/07/2021

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).