CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Coagulation Factor V, Human, clone 3B1		
Catalog number	HM2360-20UG		
Lot number	-	**Expiry date**	-
Volume	200 µl	**Amount**	20 µg
Formulation	0.2 µm filtered in PBS+0.02%NaN3+0.1%BSA	**Concentration**	100 µg/ml
Host Species	Mouse IgG2a	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

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

- IA: the antibody can be used as capture antibody.
- W: A non-reduced and/or reduced sample treatment and SDS-Page was used. The band size is 110 kDa.

General Information

Description

Monoclonal antibody 3B1 recognizes human coagulation factor V (FV; proaccelerin). The coagulation pathway is formed by sequential enzymatic activation of serine proteases leading to the generation of thrombin. Regulation of this pathway is essential in order to prevent bleeding and unnecessary clotting. FV is an essential clotting factor with little or no intrinsic procoagulant activity until the conversion to FVa through proteolysis by thrombin or activated factor X. About 80% of blood FV is derived from the liver, the remaining 20% is stored in platelet α-granules. This is released after platelet activation. FV is a large plasma glycoprotein of ca 330KD. After cleavage into FVa a heavy and light chain is generated which is held together by calcium ions. FV contains many posttranslational modifications, which are important for the procoagulant and anticoagulant function of FV and FVa. Defects in FV may lead to hemorrhagic or thrombotic phenotypes. Most well-known is FV-Leiden mutation, in which AA R506 has been mutated to Gln. Due to this mutation FVa activity is downregulated by activated protein C.

Immunogen

Purified human Coagulation Factor V

Aliases

Activated protein C cofactor, Proaccelerin, labile factor

Gene

Gene name: F5 Entrez Gene ID 2153 Uniprot P12259

References

1. Heeb, M et al; Importance of individual activated protein C cleavage site regions in coagulation Factor V for Factor Va inactivation and for Factor Xa activation. Eur J Biochem 1999. *260*:64
2. Segers, K et al; The Role of Thrombin Exosites I and II in the Activation of Human Coagulation Factor V. J Biol Chem 2007, *47*:33915
3. Segers, K et al; Identification of Surface Epitopes of Human Coagulation Factor Va That Are Important for Interaction with Activated Protein C and Heparin. J Biol Chem 2008. *33*:22573
4. Castoldi, E et al; Homozygous F5 deep-intronic splicing mutation resulting in severe factor V deficiency and undetectable thrombin generation in platelet-rich plasma. J Throm Haem 2011. *9*:959

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.