CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Properdin, Human, clone 2.9		
Catalog number	HM2282		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**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 #								
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 2.9 reacts with human properdin (factor P), which is a single-chain plasma glycoprotein with an apparent molecular mass of 52-55 kDa, The protein domain structure of properdin consists of six thrombospondin repeat sequences between short N- and C-terminal domains. In blood, properdin exists as a mixture of head-to-tail dimers, trimers and tetramers. The protein is expressed by a variety of leukocytes, including monocytes, T lymphocytes and neutrophils, but also by endothelial cells in which properdin synthesis is induced by certain stress factors. Properdin participates in the alternative pathway of complement activation together with C3 and factors B, D, I and H by prolonging the half-life of the labile C3bBb, which is deposited on immune complexes or foreign surfaces. This permits amplification of C3bBb formation in competition with catabolism of C3b by factor I, which uses factor H as a cofactor. The local amplification process leads to the creation of the alternative pathway C5 convertase, C3bBb3b, and initiates the terminal pathway of complement activation. As a consequence, properdin is consumed by binding to C3bBb, which shows an order of preference of tetramers over trimers over dimers, which corresponds to the functional activity of the oligomeric forms. Deficiency or malfunction of the molecule may lead to severe impairment of alternative pathway activation, depending on the precise nature of the defect. Three types of deficiencies have been described so far: type 1 (or I) is characterized by serum with very low or absent properdin activity in hemolytic assays and <0.1 µg/ml immunoreactive protein; type 2 (or II) is characterized by low but detectable levels of immunoreactive protein (>2 µg/ml) and impairment of some, but not all functional test, and type 3 (or III) has normal levels of immunoreactive but dysfunctional protein (5-25 µg/mL). Lower properdin levels were found in 70% of diabetic patients when compared to nondiabetic controls and is suggested by the authors that patients with low expression of properdin take preventive measures and early treatments against infection.

Immunogen Purified human Properdin.

Aliases Factor P

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
Robbert Zwinkels	23/03/2018

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