

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	C1-INH, Human, pAb		
<b>Catalog number</b>	HP9078-100UG		
<b>Lot number</b>	xxxxxXxxxx-X	<b>Expiry date</b>	MMM YYYY
<b>Volume</b>	1 ml	<b>Amount</b>	100 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>	Rabbit IgG	<b>Conjugate</b>	None
<b>Endotoxin</b>	N.A.	<b>Purification</b>	Protein A
<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.

- W: the antibody is useful for Western blotting under reduced conditions. The expected band size is 110 kDa.

**General Information**
**Description**

Rabbit polyclonal antibody HP9078 recognizes human C1-inhibitor. The complement system plays important roles in both innate and adaptive immune response and can produce an inflammatory and protective reaction to challenges from pathogens before an adaptive response can occur. There are three pathways of complement activation. The classical pathway (CP) is initiated by Immune complexes; the lectin pathway (LP) by surface bound mannan binding lectin; and the alternative (AP) by all the surfaces that are not specifically protected against it. Each generates a C3 convertase, a serine protease that cleaves the central complement protein C3, and generates the major cleavage fragment C3b. The C3 and C5 convertases are enzymatic complexes that initiate and amplify the activity of the complement pathways and ultimately generate the cytolytic MAC (C5b-9). C1 inhibitor (C1-INH) is a heavily glycosylated single chain molecule of 500 AA. It inhibits multiple enzymes, including C1s&r of the CP and MASP-1&2 of the LP, plasmin in the fibrinolytic system and Factor XIIa&XIa of the contact and coagulation system. C1-INH is also called C1 esterase inhibitor due C1s is often cleaved by synthetic esters in spectrophotometry. C1-INH plays an important role in suppression of inflammation and vascular permeability. C1-INH binding of C1 to the catalytic site of both C1r and C1s releases the latter two from the complex. As a result the activation of the complement system is blocked. Binding to MASP blocks function and thereby consumption of C2,3&4. C1-INH spares the AP, leaving part of the innate antibacterial defense intact. Besides, C1-INH can directly bind and neutralize LPS, inhibiting sepsis and endotoxin shock. C1-INH administration is the common treatment for hereditary angioedema (HAE). A disease commonly caused by heterozygous deficiency of C1-INH and leading to low levels of functional C1-INH and recurrent episodes of dermal and submucosal swelling. This is mediated by its ability to control activation of the contact system in inhibiting bradykinin generation and thereby control of vascular permeability.

**Immunogen**

Purified C1-INH

**References**

1. Randazzo et al. 1985. Synthesis of C1-Inh by a human monocyte-like cell line U937. J. Immunology 135:1313
2. Joseph et al., 2013. Factor XII-independent activation of the bradykinin-forming cascade: Implications for the pathogenesis of hereditary angioedema types I and II. J Allergy and Clin Immunol. 132:470
3. Joseph et al; 2014. A novel assay to diagnose hereditary angioedema utilizing inhibition of bradykinin-forming enzymes. Allergy 70:115

**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.

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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  
25/09/2020

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