

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	C1q, Human, Natural		
Catalog number	HC2123		
Lot number	-	Expiry date	-
Volume	-	Activity	C1qH50 Units/mg
Formulation	10 mM HEPES, 300 mM NaCl, pH 7.2.	Amount	~1 mg
Host Species	Human, isolated from healthy blood donors	Concentration	~1 mg/ml
Endotoxin level	N.A.	Purification	N.A.
Storage	-70°C	Purity	≥95%

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
STS	negative
Anti-HCV	negative
Anti-HIV-1	negative
Anti-HIV-II	negative

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

- FS: The biological activity of C1q is defined as the amount of C1q required to yield 50% lysis of sensitized erythrocytes (EA). For functional studies, in vitro dilutions have to be optimized in user's experimental setting.

General Information

Description	Human complement protein C1q forms together with C1r and C1s the C1 macromolecule, the first component of the classical complement pathway. Interaction of immune complexes with C1q induces a conformational change within the C1 complex, which results in activation of the classical pathway. C1q functions as recognition unit by binding to the heavy chain of IgG or IgM (Fc gamma and Fc micro) provided that the immunoglobulins are bound to their antigen. Furthermore, C1q can bind to apoptotic blebs, where it activates the classical complement pathway and mediates phagocytosis. As such, C1q promotes the clearance of apoptotic cells and subsequent exposure of auto antigens, thereby preventing stimulation of the immune system. C1q is predominantly produced by macrophages but also by follicular dendritic cells, interdigitating cells and cells of the monocyte-macrophage lineage. C1q deficiency has a profound effect on host defense and clearance of immune complexes. Absence of C1q may cause autoimmunity by impairment of the clearance of apoptotic cells. Inherited C1q deficiency is also associated with the development of systemic lupus erythematosus (SLE).
Cross reactivity	≤ Trace amounts of C3, C4, fibrinogen, albumin, IgM, IgG, IgA or alpha-2-macroglobulin
Storage&stability	Product should be stored at -70°C. Repeated freeze and thaw cycles will cause loss of activity. Use C1q protein within 24 hours after thawing and keep on ice. Remainder amounts should be aliquoted and immediately re-frozen 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
Robbert Zwinkels

Date
06/07/2018

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