

Complement

Monoclonal Antibodies: Murine Monoclonal Anti-Human C1q Protein

For Research Use Only. Not for use in Diagnostic Procedures.

Background

Circulating C1q protein is a hexamer of three unique protein subunits (A,B, and C) with molecular weights of 29, 26 and 22 kD respectively. The assembled hexamer contains a central core or stalk, six collagen-like domains and six globular protein heads. These globular or terminal regions are responsible for the binding of immunoglobulin (IgM, and IgG). As part of the C1 complex (together with two copies each of C1r and C1s) C1q is central to activation of the classical complement pathway.

The specificity of this monoclonal to purified human C1q was determined. Quidel's monoclonal antibodies to complement antigens were prepared using standard techniques. They are purified from mouse ascites fluid via protein A affinity chromatography. Quidel's Monoclonal anti human C1q was raised against highly pure, human C1q using standard techniques.

The specificity of the monoclonal antibody was established via a series of immunoassays utilizing highly purified C1q and C1q fragments. Firstly, the antibody was shown by ELISA to bind to purified C1q and C1q globular head protein immobilized in microtiter wells. Secondly, free (unbound) C1q and globular head and human serum but not other C1q fragments were shown (via inhibition EIA) to inhibit the binding of this antibody to immobilized C1q. Similarly, using radio-labeled C1q this antibody was shown to immuno-precipitate C1q using protein A-bearing bacteria.

Applications

Please contact Quidel Specialty Products Technical Services for application specific information.

EIA	RIA	IHC ²	WB	FACS ^{1,3,4}
>1:16000	N/T	>1:1000	N/T	>1:50

N/T = Not tested.

Specifications

Catalog Number: A201
 Concentration: ≥ 1.0 mg/ml
 Purity: > 95% by SDS PAGE
 Volume/Vial: 100 μ l
 Storage: Short term (30 days) 4°C
 Long term at or below -20°C
 Buffer: Borate Buffered Saline
 (pH 8.4 \pm 0.2)
 Isotype: 1gG1k

References

- 1 Gershov D, Kim S.J., Brot N., Elkon K.B., "C-Reactive Protein Binds to Apoptotic Cells, Protects the Cells from Assembly of the Terminal Complement Components, and Sustains Anti-inflammatory Innate Immune Response: Implications for Systemic Autoimmunity" J Exp Med 192(9), 2000.
2. Rogers J, Cooper N.R., Webster S, Schultz J, McGeer P.L., Styren S.D., Civin W.H., Brachova L, Bradt B, Ward P, Lieberburg I, "Complement Activation By b-amyloid in Alzheimer Disease" Proc Natl Acad Sci 89:10016-20, 1992.
3. Jack D.L., Dodds A.W., Anwar N, Ison C.A., Law A, Frosch M, Turner M.W., Klein N.J., "Activation of Complement by Mannose-Binding Lectin on Isogenic Mutants of *Neisseria meningitidis* Serogroup B¹" J Immunol 160:1346-53, 1998.
4. Gemmell C.H. "A Flow Cytometric Immunoassay to Quantify Adsorption of Complement Activation Products (iC3b, C3d, SC5b-9) on Artificial Surfaces" J Biomed Mater Res 37(4):474-80, 1997.

Ordering and Additional Information

To learn more about this and other Quidel products visit our website www.quidel.com or contact Technical Services at 1.800.524.6318



RESEARCH TO RAPIDS®

Worldwide Headquarters
 10165 McKellar Court
 San Diego, CA 92121 USA
www.quidel.com

For more information on our products and other Quidel locations, visit our website.
 800.524.6318 • 408.616.4301 • 408.616.4310 (fax)