QUIDEL

Complement

Technical
Data Sheet

Polyclonal Antisera:

Anti-Human C2

For **Research Use Only.** Not for use in diagnostic procedures

Background

C2 is a polypeptide, which is present in normal human serum/plasma at approximately 20 µg/mL. This complement protein is synthesized in a variety of locations throughout the body with the main site of synthesis being the liver. It has an approximate molecular weight of 100 kD, however, the molecular weight can vary due to the natural glycosylation of the protein at 8 different sites.

C2 is a key component in both the classical and lectin pathways of complement activation, as the fragments are utilized to form both the C3 and C5 convertases after C2 is cleaved to produce C2a and C2b. These fragments have molecular weights of approximately 70 kD and kD, respectively. C2a binds to C4b to form the C3 convertase, and then the C2a, C4b complex binds to C3b to form the C5 convertase. Formation of both convertase molecules is essential to the continuation of the complement cascade, with the final results being the formation of the Membrane Attack Complex, or MAC.

Characterization

Highly purified human C2s was isolated from normal serum and used to immunize goats. The anti-human C2s polyclonal antisera was tested against normal human serum by double immunodiffusion, quantitative radial immunodiffusion, and ELISA. The antiserum was determined to be monospecific for C2 at varying concentrations.

Applications

Applications of the C2 polyclonal antisera have been evaluated by various research facilities, and include Western Blot,[1,2,3] Flow Cytometry,[4] and Immunoblot.[5]

Specifications

- Volume/vial: 1.0 mL
- Storage: 2°C to 8°C* (≤ 30 days)
- Preservative: ≤ 0.1% Sodium Azide

Species Cross Reactivity:

- N/A

*For long-term storage (> 30 days), aliquot and store at ≤ –20°C. Avoid repeated freeze-thaw.

References

[1]Chang, N., et al. "Regulation of Complement Functional Efficiency by Histidine-Rich Glycoprotein." *Blood* (1992): 2973-2980.

[2]Harboe, M., et al. "The Down-Stream Effects of Mannan-Induced Lectin Complement Pathway Activation Depend Quantitatively on Alternative Pathway Amplification." *Molecular Immunology* (2009): 373-380.

[3]Yasojima, K., et al. "Up-Regulated Production and Activation of the Complement System in Alzheimer's Disease Brain." *American Journal of Pathology* (1999): 927-936.

[4]Fernandez-Prada, C., et al. "Deletion of wboA Enhances Activation of the Lectin Pathway of Complement in Brucella abortus and Brucella melitensis." *Infection and Immunity* (2001): 4407-4416.

[5]Rooijakkers, S., et al. "Immune Evasion by a Staphylococcal Complement Inhibitor that Acts on C3 Convertases." *Nature Immunology* (2005): 920-927.

Anti-Human C2q – Cat. #A303

Also available:
C2-Depleted Serum – Cat. #A500

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