

Polyclonal Antisera:

Anti-Human C6

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

Background

C6 is a plasma glycoprotein which is present in normal human serum/plasma at approximately 60 µg/mL. Primarily synthesized in the liver, C6 is a single-chain protein with a molecular weight of approximately 105 kD.

With activation of the classical or alternative pathways of the complement system, C5 convertase cleaves the C5 chain into C5a and C5b. C5b remains bound to the convertase and will combine with C6 to form a C5b,6 complex. This complex normally interacts with C7 to form C5b,6,7 that becomes partially embedded in the target cell outer membrane.

If C7 is limited, the C5b,6 will dissociate from the C5 convertase. This complex is relatively stable in free-solution and can be purified. This fluid-phase C5b,6 complex can combine with C7 in the presence of biological or artificial membranes to form a membrane-bound C5b,6,7 complex, which can subsequently bind C8 and multiple C9 molecules completing the terminal pathway. The C5b,6,7,8,9, or C5b-9 complex, is also known as the Membrane Attack Complex (MAC), which causes irreversible damage to the target cell membrane.

Characterization

Highly purified human C6 was isolated from normal serum and used to immunize goats. The anti-human C6 polyclonal antisera was tested against normal human plasma by double immunodiffusion, one-dimensional immunoelectrophoresis, quantitative radial immunodiffusion, and quantitative rocket immunoelectrophoresis. The antiserum was determined to be monospecific for C6 at varying concentrations.

Applications

Applications of the C6 polyclonal antisera have been evaluated by various research facilities, and include Western Blot,¹ IHC,^{2,3} and ELISA.⁴

Specifications

- Volume/vial: 2.0 mL
- Storage: 2°C to 8°C* (≤ 30 days)
- Form: Whole Antiserum
- Preservative: ≤ 0.1% Sodium Azide

Species Cross Reactivity:

- Baboon, Dog, Cat, Rabbit, Rat, Horse

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

References

- ¹Mollnes, T.E., et al. "Complement Activation in Septic Baboons Detected By Neopeptide-Specific Assay for C3b/iC3b/C3c, C5a and the Terminal C5b-9 Complement Complex (TCC)." *Clinical & Experimental Immunology* (1993): 295-300.
- ²Banz, Y., et al. "Attenuation of Myocardial Reperfusion Injury in Pigs by Mirococept, a Membrane-Targeted Complement Inhibitor Derived from Human CR1."

Cardiovascular Research (2007): 482-493.

³Bongoni, A. "Functional Evaluation of Multiple Human Transgenes to Overcome Immunological and Coagulation Barriers Associate with Pig-to-Human Xenotransplantation." *Diss. University of Bern, Switzerland* (2013). Web.

⁴Meri, T., et al. "Onchocerca volvulus Microfilariae Avoid Complement Attack by Direct Binding of Factor H." *J of Infect. Diseases* (2002): 1786-1793.

Anti-Human C6 – Cat. #A307

Also available:

MoAb: Anti-human C6 – Cat. # A219

Biotinylated moAb: Anti-human C6 – Cat. #A706

C6 Depleted Serum – Cat. #A502

C6 Proteins – Cat. #A404