

Polyclonal Antisera:

Anti-Human C1-Inhibitor

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

Background

C1-inhibitor is a multispecific protease inhibitor present in human plasma and serum. Normal human serum shows a concentration of approximately 200 µg/mL. C1-inhibitor is a glycoprotein with an approximate molecular weight of 110 kD. This protein contains many glycosylation sites, so the molecular weight varies depending on the quantity of sites that are glycosylated.

Among the proteins regulated by C1-inhibitor are C1s and C1r of the complement complex. Regulation and inactivation of C1s and C1r effectively limits the consumption of complement components C2 and C4. Genetic deficiencies of C1-inhibitor are of two types: functional deficiencies (protein is present but not functional) and antigen deficiencies (protein is not present, or more commonly, present at a low level). Either of these may lead to life threatening hereditary angioedema (HAE).

Characterization

Highly purified human C1-inhibitor was isolated from normal serum and used to immunize goats. The C1-inhibitor 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 C1-inhibitor at varying concentrations.

Applications

Applications of the C1-inhibitor polyclonal antisera have been evaluated by various research facilities, and include Western Blot¹ and Immunoblot.²

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, Rabbit

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

References

- ¹Schwab, J. et al. "Borrelia valaisiana Resist Complement-Mediated Killing Independently of the Recruitment of Immune Regulators and Inactivation of Complement Components." *PLoS ONE* 8(1): e53659.
- ²Yasojima, K., et al. "Complement Components, but Not Complement Inhibitors, are Upregulated in Atherosclerotic Plaques." *Arteriosclerosis, Thrombosis, and Vascular Biology* (2001): 1214-1219.

Anti-Human C1-Inhibitor – Cat. #A300

Also available:

MicroVue C1-Inhibitor Plus EIA – Cat. #A037