

**Recombinant Human C1 Inhibitor**  
**Catalog # PBG10050****Specification**

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**Recombinant Human C1 Inhibitor - Product Information****Recombinant Human C1 Inhibitor - Additional Information****Description**

C1 Inhibitor is a member of the serpin family of structurally related proteins, and is the primary regulator of the immune complement system. C1Inhibitor is a protease inhibitor that functions to inhibit the complement system in order to prevent over-activation or spontaneous activation. Inhibition is achieved by binding to and irreversibly inhibiting the C1r and C1s proteases of the C1 complex, which has the effect of shutting down all subsequent downstream events in the complement activation cascade. C1inhibitor can also inhibit various other proteases, including Kallikrein, Factor XIa, and Factor XIIa. Deficiencies in C1inhibitor are the primary cause of hereditary angioedema (HAE, hereditary angioneurotic edema), a disease characterized by edema in the respiratory and gastrointestinal tracts. In certain clinical situations, the direct administration of C1inhibitor can be used to treat HAE and certain other conditions. Recombinant Human C1 Inhibitor is a highly glycosylated glycoprotein containing 445 amino acid residues (49.4kDa), corresponding to amino acids 56 - 500 of the C1 inhibitor precursor, and is fully functional in its ability to inhibit the C1 complex. Glycosylated C1 Inhibitor migrates at an apparent molecular weight of approximately 80-90 kDa by SDS PAGE analysis under reducing conditions.

**BiologicalActivity**

Measured by its ability to inhibit recombinant human complement component C1a cleavage of a colorimetric peptide substrate, N Carbobenzyloxy-Lys-ThioBenzyl ester (Z-K-SBzl). The expected  $IC_{50}$  is  $\leq 2.6$  nM.

**Authenticity**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**Endotoxin**

Endotoxin level is  $<0.1$  ng/  $\mu$ g of protein ( $<1$ EU/  $\mu$ g).

**Protein Content**

Verified by UV Spectroscopy and/or SDS-PAGE gel.

**Storage**

-20°C

**Precautions**

Recombinant Human C1 Inhibitor is for research use only and not for use in diagnostic or therapeutic procedures.

**Recombinant Human C1 Inhibitor - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **Recombinant Human C1 Inhibitor - Images**