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**Recombinant Human Serpin G1/C1 Inhibitor Protein(C-6His)****Cat.NO.: TP05532**

3th Edition

**Synonyms:**Plasma Protease C1 Inhibitor; C1 Inh; C1Inh; C1 Esterase Inhibitor; C1-Inhibiting Factor; Serpin G1; SERPING1; C1IN; C1NH

**Description:**As protease inhibitors, serpins have an array of functions including regulating blood clotting, the complement pathway, extracellular matrix remodeling, and cell motility. Serpin G1 is a serine protease inhibitor protein. It is the largest member among the serpin class of proteins. Remarkably, Serpin G1 has a 2-domain structure, unlike most family members. The C-terminal serpin domain is similar to other serpins, and this part of Serpin G1 provides the inhibitory activity. The N-terminal domain is not essential for Serpin G1 to inhibit proteinases and has no similarity to other proteins. The main function of Serpin G1 is the inhibition of the complement system to prevent spontaneous activation. Serpin G1 is an acute phase protein and circulates in blood at levels of around 0.25g/L, whose levels rise 2-fold during inflammation. Although named after its complement inhibitory activity, Serpin G1 also inhibits proteinases of the fibrinolytic, clotting, and kinin pathways. Most notably, Serpin G1 play a potentially crucial role in regulating important physiological pathways including complement activation, blood coagulation, fibrinolysis and the generation of kinins. It is also the most important physiological inhibitor of fXIIa, chymotrypsin and plasma kallikrein.

**Form:**PBS

**Molecular Weight:**53.9 kDa

**Sequences:**Asn23-Ala500

**Purity:**> 95% by HPLC

**Concentration:**

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.