

Serpin G1 Protein, Human, Recombinant (His)

General Information

Synonyms:	C1-Inhibiting Factor;Serpin G1;SERPING1;C1 Esterase Inhibitor;C1 Inh;Plasma Protease C1 Inhibitor;C1Inh;C1NH;C1IN
Protein Construction:	Asn23-Ala500
Species:	Human
Expression Host:	HEK293 Cells
Accession:	AAH11171.1
Molecular Weight:	102 KDa (reducing condition)
AA Sequence:	Asn23-Ala500

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris-HCl, 150 mM NaCl, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months.

Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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