# Recombinant IC1 protein (His tag)

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| **Catalog Number** | 542020 |
| **Synonyms** | C1 Inh; C1Inh; C1 esterase inhibitor; C1-inhibiting factor; Serpin G1 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P05155 |
| **Molecular Weight** | Predictes a molecular mass of 44.15 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band. |

## Product Information

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| **Sequence Region** | 122-500 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >86%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 122-500 aa (P05155) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human Plasma Protease C1 Inhibitor (C1 Inh) Fragment (residues 122-500) is a high-quality protein product designed for structural and biochemical research. This 379-amino acid fragment, derived from the SERPING1 gene, represents a stable and soluble unit of the native protein, making it ideal for investigating the regulatory mechanisms of the classical complement pathway and related proteolytic systems.<br>The full-length Plasma Protease C1 Inhibitor (Serpin G1) is a crucial serine protease inhibitor that regulates the classical complement pathway by forming proteolytically inactive complexes with C1r and C1s proteases. It also plays significant roles in modulating blood coagulation, fibrinolysis, and kinin generation, demonstrating inhibitory activity against FXIIa, chymotrypsin, and kallikrein. As a secreted protein, it functions extracellularly in plasma and other bodily fluids, where it maintains immune and hemostatic balance. This recombinant fragment provides a valuable tool for studying these regulatory functions without the complexities of the full-length protein. |