

# Recombinant Rat Serping1 Protein, His-tagged

**Cat. No.** Serping1-534R    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Recombinant Rat Serping1 (NP_954524.1) (Met1-Ala504) was expressed with a polyhistidine tag at the C-terminus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | Met1-Ala504                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | <p>Plasma protease C1 inhibitor, also known as C1-inhibiting factor, C1-INH, C1 esterase inhibitor, SERPING1 and C1IN, is a serine proteinase inhibitor (serpin) that regulates activation of both the complement and contact systems. By its C-terminal part (serpin domain), characterized by three beta-sheets and an exposed mobile reactive loop, C1-INH binds, and bl centigradeks the activity of its target proteases. The N-terminal end (nonserpin domain) confers to C1-INH the capacity to bind lipopolysaccharides and E-selectin. Owing to this moiety, C1-INH intervenes in regulation of the inflammatory reaction. The heterozygous deficiency of C1-INH results in hereditary angioedema (HAE). Owing to its ability to modulate the contact and complement systems and the convincing safety profile, plasma-derived C1 inhibitor is an attractive therapeutic protein to treat inflammatory diseases other than HAE. Deficiency of C1 inhibitor results in hereditary angioedema, which is characterized by recurrent episodes of I centigradealized angioedema of the skin, gastrointestinal mucosa or upper respiratory mucosa. C1 inhibitor may prove useful in a variety of other diseases including septic sh centigradek, reperfusion injury,</p> |

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hyperacute transplant rejection, traumatic and hemorrhagic shock, and the increased vascular permeability associated with thermal injury, interleukin-2 therapy and cardiopulmonary bypass.

**Predicted N Terminal** Asp 23

**Form** Lyophilized from sterile PBS, pH 7.4. Normally 5 %- 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

**Molecular Mass** The recombinant rat Serping1 consists of 493 amino acids and predicts a molecular mass of 54.7 kDa.

**Endotoxin** < 1.0 EU per µg protein as determined by the LAL method.

**Purity** > 95 % as determined by SDS-PAGE.

**Storage** Samples are stable for up to twelve months from date of receipt at -70 centigrade. Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Reconstitution** It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

## GENE INFORMATION

**Gene Name** Serping1 serpin peptidase inhibitor, clade G, member 1 [ *Rattus norvegicus* ]

**Official Symbol** Serping1

**Synonyms** SERPING1; serpin peptidase inhibitor, clade G, member 1; plasma protease C1 inhibitor; C1Inh; C1 Inh; serpin G1; C1-inhibiting factor; C1 esterase inhibitor; serine

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(or cysteine) peptidase inhibitor, clade G, member 1; serine (or cysteine) proteinase inhibitor, clade G (C1 inhibitor), member 1, (angioedema, hereditary); MGC72585;

**Gene ID** 295703

**mRNA Refseq** NM\_199093

**Protein Refseq** NP\_954524

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