

# Recombinant Human SERPINA1 Protein

**Cat. No.** SERPINA1-003H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human SERPINA1 protein without tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ProteinLength</b>    | 418                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | The protein encoded by this gene is a serine protease inhibitor belonging to the serpin superfamily whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. This protein is produced in the liver, the bone marrow, by lymphocytic and monocytic cells in lymphoid tissue, and by the Paneth cells of the gut. Defects in this gene are associated with chronic obstructive pulmonary disease, emphysema, and chronic liver disease. Several transcript variants encoding the same protein have been found for this gene. |
| <b>Form</b>             | Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Molecular Mass</b>   | 44.4 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>AA Sequence</b>      | MPSSVSWGILLLAGLCCLVPVSLAEDPQGDAQKTDTSHHQDQDHPTFNKITPNLAEF<br>AFSLYRQLAHQSNSTNIFFSPVSIATAFAMLSLGTKADTHDEILEGLNFNLTETPEAQIH<br>EGFQELLRTLNQPDSQLQLTTGNGLFLSEGLKLVDFLEDVKKLYHSEAFTVNFGDT<br>EEAKKQINDYVEKGTQGKIVDLVKELDRDTVFALVNYIFFKKGKWERPFVKDTEED<br>FHVDQVTTVKVPMKRLGMFNIQHCKKLSSWVLLMKYLGNAIFFLPDEGKLQHL                                                                                                                                                                                                                                                             |

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|                       |                                                                                                                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | ENELTHDIITKFLENEDRRSASLHLPKLSITGTYDLKSVLGQLGITKVFSNGADLSGVT<br>EEAPLKLSKAVHKAVLTIDEKGTEAAGAMFLEAIPMSIPPEVKFNKPFVFLMIEQNTKS<br>PLFMGKVVNPTQK                                                                                                                                 |
| <b>Purity</b>         | > 90%                                                                                                                                                                                                                                                                       |
| <b>Applications</b>   | WB; ELISA; FACS; FC                                                                                                                                                                                                                                                         |
| <b>Stability</b>      | This bioreagent is stable at 4 centigrade (short-term) and -70 centigrade(long-term).<br>After reconstitution, sample may be stored at 4 centigrade for 2-7 days and below -18 centigrade for future use.                                                                   |
| <b>Storage</b>        | At -20 centigrade.                                                                                                                                                                                                                                                          |
| <b>Concentration</b>  | 1 mg/mL                                                                                                                                                                                                                                                                     |
| <b>Storage Buffer</b> | PBS (pH 7.4-7.5). Sterile-filtered colorless solution.                                                                                                                                                                                                                      |
| <b>Reconstitution</b> | Reconstitute in sterile distilled H2O to no less than 100 µg/mL; dilute reconstituted stock further in other aqueous solutions if needed. Please review COA for lot-specific instructions. Final measurements should be determined by the end-user for optimal performance. |

## GENE INFORMATION

|                        |                                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | SERPINA1 serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1 [ Homo sapiens (human) ] |
| <b>Official Symbol</b> | SERPINA1                                                                                                              |
| <b>Synonyms</b>        | SERPINA1; serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin),                                  |

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member 1; PI, serine (or cysteine) proteinase inhibitor, clade A (alpha 1 antiproteinase, antitrypsin), member 1; alpha-1-antitrypsin; A1A; A1AT; AAT; alpha 1 antitrypsin; alpha1AT; PI1; protease inhibitor 1 (anti elastase); serpin A1; alpha-1-antiproteinase; alpha-1-antitrypsin null; alpha-1 protease inhibitor; protease inhibitor 1 (anti-elastase), alpha-1-antitrypsin; serine (or cysteine) proteinase inhibitor, clade A, member 1; PI; PRO2275; MGC9222; MGC23330;

|                       |           |
|-----------------------|-----------|
| <b>Gene ID</b>        | 5265      |
| <b>mRNA Refseq</b>    | NM_000295 |
| <b>Protein Refseq</b> | NP_000286 |
| <b>MIM</b>            | 107400    |
| <b>UniProt ID</b>     | P01009    |