

## Active Recombinant Human SERPINI1 protein, Tag Free

**Cat. No.** SERPINI1-1670H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human SERPINI1 protein was expressed in Escherichia coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ProteinLength</b>    | 17-410 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | Neuroserpin encoded by the SERPINI1 gene in humans is a member of the serine proteinase inhibitor (serpin) family. It reacts preferentially with tissue-type plasminogen activator (tPA). Neuroserpin is expressed mainly in the central nervous system (CNS) in response to neuronal depolarization and plays an important role in the development of synaptic plasticity. Mutations in human neuroserpin result in a form of autosomal dominant inherited dementia which is characterized by the presence of intraneuronal inclusion bodies and is known as Familial Encephalopathy with Neuroserpin Inclusion Bodies. |
| <b>Form</b>             | Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bio-activity</b>     | Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using rat C6 cells is less than 0.5 µg/ml, corresponding to a specific activity of > 2000 IU/mg.                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Molecular Mass</b>   | Approximately 44.7 kDa, a single non-glycosylated polypeptide chain containing 394 amino acid residues.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>    | <p>TGATFP EEAIADLSVNMYNRLRATGEDENILFSPLSIALAMGMMELGAQGSGTQKEIR</p> <p>HSMGYDSLKNGEEFSFLKEFSNMVTAKESQYVMKIANSLFVQNGFHVNEEFLQMM</p> <p>KKYFNAAVNHVDFSQNVAVANYINKWVENNTNNLVKDLVSPRDFDAATYLALINAVY</p> <p>FKGNWKSQFRPENTRTFSFTKDDSEVQIPMMYQQGEFYQGEFSDGSNEAGGIYQ</p> <p>VLEIPYEGDEISMMLVLSRQEVPLATLEPLVKAQLVEEWANSVKKQKVEVYLPRFTV</p> <p>EQEIDLKDV LKALGITEIFIKDANLTGLSDNKEIFLSKAIHKSFLLEVNEEGSEAAVSGM</p> <p>IAISRMVLYPQVIVDHPFFFLIRNRRTGTILFMGRVMHPETMNTSGHDFEEL</p> |
| <b>Endotoxin</b>      | Less than 1 EU/μg of rHuNeuroserpin as determined by LAL method.                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Purity</b>         | >95% by SDS-PAGE and HPLC analysis.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Storage</b>        | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.                                                                                                                                                                    |
| <b>Reconstitution</b> | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.                                                                        |

## GENE INFORMATION

|                        |                                                                                                                                                                           |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | SERPINI1                                                                                                                                                                  |
| <b>Official Symbol</b> | SERPINI1                                                                                                                                                                  |
| <b>Synonyms</b>        | SERPINI1; serpin peptidase inhibitor, clade I (neuroserpin), member 1; PI12, serine (or cysteine) proteinase inhibitor, clade I (neuroserpin), member 1; neuroserpin; PI- |

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12; serpin I1; peptidase inhibitor 12; serine (or cysteine) proteinase inhibitor, clade I (neuroserpin), member 1; PI12; DKFZp781N13156;

**Gene ID**

5274

**mRNA Refseq**

NM\_001122752

**Protein Refseq**

NP\_001116224

**MIM**

602445

**UniProt ID**

Q99574

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