

## Active Recombinant Human SERPINI1

Cat. No. SERPINI1-646H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human SERPINI1 produced in E. coli is approximately 44.8 kDa, a single non-glycosylated polypeptide chain containing 395 amino acid residues.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	Neuroserpin is an inhibitory serpin that is expressed predominantly in central nervous system. Although the physiological target of neuroserpin is still unclear, cumulative evidence suggest that it plays an important role in controlling proteolytic degradation of extracellular matrix (ECM) during synaptogenesis and the subsequent development of neuronal plasticity. The neuroprotective role of neuroserpin has been demonstrated in transgenic mice lacking neuroserpin expression. The deficiency of neuroserpin in these mice was associated with motor neuron disease characterized by axonal degradation. In humans, defects in neuroserpin, caused by point mutations in the neuroserpin gene, underlie a hereditary disorder called the familial encephalopathy with neuroserpin inclusion bodies (FENIB).
<b>Form</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED 50 determined by a cell proliferation assay using rat C6 cells is less than 600 ng/ml, corresponding to a specific activity of $>1.67 \times 10^3$ IU/mg.
<b>Molecular Mass</b>	44.8 kDa

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<b>AA Sequence</b>	MTGATFP <sub>EEA</sub> IADLSVNMYN RLRATGEDEN ILFSPLSIAL AMGMMELGAQ GSTQKEIRHS MGYDSLKNGE EFSFLKEFSN MVTAKESQYV MKIANS <sub>LFVQ</sub> NGFHVNEEFL QMMKKYFNAA VNHVDFSQNV AVANYINKWV ENNTNNLVKD LVSPRDFDAA TYLALINAVY FKG <sub>NWKSQFR</sub> PENTRTFSFT KDESEVQIP MMYQQGEFYY GEFSDGSNEA GGIYQVLEIP YE
<b>Endotoxin</b>	Less than 1 EU/μg of rHuNeuroserpin as determined by LAL method.
<b>Purity</b>	>95% by SDS-PAGE and HPLC analyses.
<b>Usage</b>	This material is for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.
<b>Storage</b>	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 centigrade to -70 centigrade. Avoid repeated freeze/thaw cycles.
<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 serpin peptidase inhibitor, clade I (neuroserpin), member 1 [ Homo sapiens ]
<b>Official Symbol</b>	SERPINI1

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<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-12; serpin I1; peptidase inhibitor 12; serine (or cysteine) proteinase inhibitor, clade I (neuroserpin), member 1; PI12; DKFZp781N13156;
<b>Gene ID</b>	<a href="#">5274</a>
<b>mRNA Refseq</b>	<a href="#">NM_001122752</a>
<b>Protein Refseq</b>	<a href="#">NP_001116224</a>
<b>MIM</b>	<a href="#">602445</a>
<b>UniProt ID</b>	<a href="#">Q99574</a>
<b>Chromosome Location</b>	3q26
<b>Pathway</b>	Validated targets of C-MYC transcriptional activation, organism-specific biosystem;
<b>Function</b>	peptidase inhibitor activity; serine-type endopeptidase inhibitor activity;

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