

Active Recombinant Human SERPINI1

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

SPECIFICATION

Product Overview	Recombinant Human SERPINI1 produced in E. coli is approximately 44.8 kDa, a single non-glycosylated polypeptide chain containing 395 amino acid residues.
Species	Human
Source	E.coli
Description	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).
Form	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	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.
Molecular Mass	44.8 kDa

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AA Sequence	MTGATFPEEA IADLSVNMYN RLRATGEDEN ILFSPLSIAL AMGMMEGAQ GSTQKEIRHS MGYDSLKNGE EFSFLKEFSN MVTAKESQYV MKIANSLFVQ NGFHVNEEFL QMMKKYFNAA VNHVDFSQNV AVANYINKWV ENNTNNLVKD LVSPRDFDAA TYLALINAVY FKGWNWKSQFR PENTRTFSFT KDDSEVQIP MMYQQGEFYY GEFS DGSNEA GGIYQVLEIP YE
Endotoxin	Less than 1 EU/μg of rHuNeuroserpin as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analyses.
Usage	This material is for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.
Storage	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.
Reconstitution	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

Gene Name	SERPINI1 serpin peptidase inhibitor, clade I (neuroserpin), member 1 [Homo sapiens]
Official Symbol	SERPINI1

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Synonyms	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;
Gene ID	5274
mRNA Refseq	NM_001122752
Protein Refseq	NP_001116224
MIM	602445
UniProt ID	Q99574
Chromosome Location	3q26
Pathway	Validated targets of C-MYC transcriptional activation, organism-specific biosystem;
Function	peptidase inhibitor activity; serine-type endopeptidase inhibitor activity;