



## Technical Data Sheet

### Recombinant Human Neuroserpin (rHu Neuroserpin)

#### *Human Neuroserpin*

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).

Catalog Number:	RC513-13
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 44.8kDa, a single non-glycosylated polypeptide chain containing 395 amino acid residues.
Quantity:	5µg/25µg/1000µg
AA Sequence:	MTGATFPEEA IADLSVNMYN RLRATGEDEN ILFSPLSIAL AMGMMELGAO GSTQKEIRHS MGYDSLKNGE EFSFLKEFSN MVTAKESQYV MKIANSFLVQ NGFHVNEEFL QMMKKYFNA A VNHVDFSQNV AVANYINKWV ENNTNINLVKD LVSPRDFDAA TYLALINAVY FKGNWKSQFR PENTRTFSFT KDESEVOQIP MMYQQGEFY GEFSDGSNEA GGIYQVLEIP YEGDEISMML VLSRQEVPLA TLEPLVKAQL VEEWANSVKK OKVEVYLPRF TVEQEIDLKD VLKALGITEI FIKDANLTGL SDNKEIFLSK AIHKSFLEVN EEGSEAAAVS GMIAISRMAV LYQVIVDHP FFFLIRNRRT GTILFMGRVM HPETMNTSGH DFEEL
Purity:	>95% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED <sub>50</sub> determined by a cell proliferation assay using rat C6 cells is less than 600 ng/ml, corresponding to a specific activity of >1.67×10 <sup>3</sup> IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 1EU/µg of rHuNeuroserpin as determined by LAL method.
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



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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  $<-20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at  $2-8^{\circ}\text{C}$ , but should be kept at  $-20^{\circ}\text{C}$  for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at  $2-8^{\circ}\text{C}$ . For maximal stability, apportion the reconstituted preparation into working aliquots and store at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . Avoid repeated freeze/thaw cycles.

Usage:

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