

# Human SerpinI1 / Neuroserpin Protein (His Tag)

Catalog Number: 11107-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

neuroserpin; PI12

### Protein Construction:

A DNA sequence encoding the human SERPINI1 (NP\_005016.1) (Met 1-Leu 410) was expressed, with a C-terminal polyhistidine tag.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Thr 17

### Molecular Mass:

The secreted recombinant human SERPINI1 consists of 405 amino acids after removal of the signal peptide and has a calculated molecular mass of 46 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh SERPINI1 is approximately 50-55 kDa due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

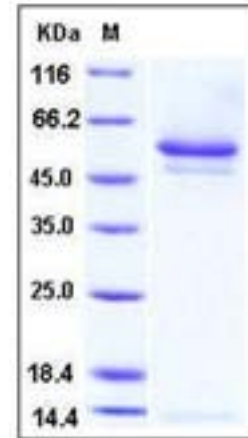
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Neuroserpin, also known as Protease inhibitor 12 and SERPINI1, is a secreted protein which belongs to the serpin family. Neuroserpin is a serine protease inhibitor that inhibits plasminogen activators and plasmin but not thrombin. Serine protease inhibitors of the serpin superfamily are involved in many cellular processes. Neuroserpin was first identified as a protein secreted from the axons of dorsal root ganglion neurons. Neuroserpin is predominantly expressed in the brain, and is expressed in the late stages of neurogenesis during the process of synapse formation. Overexpression of neuroserpin in an anterior pituitary corticotroph cell line results in the extension of neurite-like processes, suggesting that neuroserpin may play a role in cell communication, cell adhesion, and/or cell migration. Neuroserpin may be involved in the formation or reorganization of synaptic connections, as well as synaptic plasticity in the adult nervous system. Neuroserpin may also protect neurons from cell damage by tissue-type plasminogen activator. Defects of neuroserpin are the cause of familial encephalopathy with neuroserpin inclusion bodies (FEN1B).

## References

1.Schrimpf SP. et al., 1997, Genomics. 40 (1): 55-62. 2.Hill RM. et al., 2002, Ann N Y Acad Sci. 971: 406-15. 3.Yepes M. et al., 2004, Thromb. Haemost. 91 (3): 457-64.

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