

Recombinant Human Neuroserpin

#R00496

Size: 5 µg/100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
 - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

TGATFP EEAIADLSVNMYNRLRATGEDENILFSPLSIALMGMMELGAQGSTQKEIRHSMGYDSLKNGEEFSFLKEFSNMVTAKESQYVMKIANSLFVQNGFHVNEEFLQMMKKYFNAAVNHVDFSQNVAVANYINKWVENNTNN

LVKDLVSPRDFDAATYLALINAVYFKGNWKSQFRPEN
TRTFSFTKDDSEVQIPMMYQQGEFY YGEFSDGSNE
AGGIYQVLEIPYEGDEISMMLVLSRQEVPLATLEPLVK
AQLVEEWANSVKKQKVEVYLPRFTVEQEIDLKDVLKA
LGITEIFIKDANLTGLSDNKEIFLSKAIHKSFLVNEEGS
EAAAVSGMIAISRMVLYPQVIVDHPFFFLIRNRRTGTI
LFMGRVMHPETMNTSGHDFEEL

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 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Peptidase Inhibitor 12, PI-12, Serpin I1, NSP
Accession	Q99574
GeneID	5274
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 44.7 kDa, a single non-glycosylated polypeptide chain containing 394 amino acid residues.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ 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.
Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/µg of rHuNeuroserpin as determined by LAL method.