

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Neuroserpin, Human

Catalog Number: BK0276-1mg

Source: CHO

Quantity: 1mg

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. In the adult brain, neuroserpin is secreted from the growth cones of neurons in areas where synaptic changes are associated with learning and memory, i.e. cerebral cortex, hippocampus, and amygdala. 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).

Molecular Weight:

40-45 kDa, observed by non-reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

Biological Activity:

ED50 < 2 µg/ml, measured by the dose-dependent stimulation of the proliferation of rat C6 cells, corresponding to a specific activity of > 500 units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

TGATFP EEAIADLSVNMYN-
RLRATGEDENILFSPLSIAMGMEL-
GAQGSTQKEIRHSMGYDSLK-
NGEEFSLKEFSNMVTAKESQYVMKIANSLFVQ
NGFHVNEEF LQMMKKYF-
NAAVNHVDFSQNVAVANYINKWVENNT-
NNLVKDLVSPRFDAAATYLALINA-
VYFKGNWKSQFRPENTRTFSFTKDDSEVQIP-
MMYQQGEFY YGEFSDGSNEAGGIYQVLEIP-
YEGDEISMMLVLSRQEVPLATLEPLV-
KAQLVEEWANSVKKQKVEVYLPRFTVEQEID-
LKDVLKALGITEIFIKDANLTGLSDNKEIFLS-
KAIHKSFLEVNEEGSEAAAVSG-
MIAISRMAVLYPQVIVDHPFFFLIRNRRT-
GTILFMGRVMHPETMNTSGHDFEEL

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 µg/ml.

Storage:

Lyophilized recombinant Human Neuroserpin remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rh_Neuroserpin should be stable up to 1 week at 4 °C or up to 2 months at -20 °C.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. For research use only.