



## Neuroglobin, human recombinant (rHuNeuroglobin)

**Catalog No:** 87335  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** NGB

### Background

Neuroglobin, 151 amino acid residue protein, mainly expressed in vertebrate brain and retina, is a recently identified member of the globin superfamily. Augmenting O<sub>2</sub> supply, neuroglobin promotes survival of neurons upon hypoxic injury, potentially limiting brain damage. Moreover, neuroglobin may be a novel oxidative stress-responsive sensor for signal transduction in the brain. Neuroglobin expression is increased by neuronal hypoxia in vitro and focal cerebral ischemia in vivo, and neuronal survival after hypoxia is reduced by inhibiting neuroglobin expression with an antisense oligodeoxynucleotide and enhanced by neuroglobin overexpression.

### Description

Neuroglobin human recombinant produced in *E. coli* is a 17 kDa protein containing 151 amino acid residues. The amino acid sequence of the recombinant Neuroglobin is 100% homologous to the amino acid sequence of human Neuroglobin. Neuroglobin is purified by two-step procedure using size exclusion chromatography before and after refolding.

### Formulation

Sterile filtered and lyophilized from 0.5 mg/ml in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2.

### Solubility

Add 0.2 ml of H<sub>2</sub>O and let the lyophilized pellet dissolve completely.

### Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.

### Purity

Greater than 95% as determined by SDS-PAGE.

### Amino Acid Sequence

SHLVKCAEKE KTFVCVNGGEC FMVKDLSNPS RYLCKCPNEF TGDRCQNYVM ASFYKAEELY Q

### Applications

WB

### Usage

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