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Certificate of Analysis and Data Sheet

Recombinant Human Neuroglobin

Catalog No.	**Source:**
228-11156	*Escherichia Coli*

Synonyms
NGB

Introduction
Neuroglobin, 151 amino acid residue protein, mainly expressed in vertebrate brain and retina, is a recently identified member of the globin superfamily. Augmenting O (2) 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
17kDa protein containing 151 amino acid residues of the Neuroglobin human

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

Solubility
Add 0.2 ml of H2O 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.
The lyophilized protein remains stable until the expiry date when stored at -20°C.

Specificity
The amino acid sequence of the Neuroglobin human recombinant is 100% homologous to the amino acid sequence of the human Neuroglobin.

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Purification Method
Two-step procedure using size exclusion chromatography before and after refolding.

Purity
Greater than 95% as determined by SDS-PAGE.

Amino acid sequence
MERPEPELIR QSWRAVSRSP LEHGTVLFAR LFALEPDLLP LFQYNCRQFS
SPEDCLSSPE FLDHIRKVML VIDAAVTNVE DLSSLEEYLA SLGRKHRAVG
VKLSSFSTVG ESLLYMLEKC LGPAFTPATR AAWSQLYGAV VQAMSRGWDG E.