Recombinant Human Neuroglobin

Cat. No. NGB-127H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Neuroglobin produced in*E. Coli*is a 17kDa protein containing 151 amino acids.
Species	Human
Source	E.coli
Description	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 oligo deoxynucleotide and enhanced by neuroglobin overexpression.
Amino Acid Sequence	MERPEPELIR QSWRAVSRSP LEHGTVLFAR LFALEPDLLP LFQYNCRQFS SPEDCLSSPE FLDHIRKVML VIDAAVTNVE DLSSLEEYLA SLGRKHRAVG VKLSSF STVG ESLLYMLEKC LGPAFTPATR AAWSQLYGAV VQAMSRGWDGE.
Specificity	The amino acid sequence of the Neuroglobin human recombinant is 100% homologous to the amino acid sequence of the human Neuroglobin.
Purification Method	Three-step procedure using affinity Ni-NTA chromatography and size exclusion chromatography before and after refolding.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	>95% (SDS-PAGE analyzed).
Formulation	Sterile filtered and lyophilized from 0.5 mg/ml in 0.05 M Acetate buffer pH-4.
Reconstitution	Add 0.2 ml of H_2O and let the lyophilized pellet dissolve completely.
Solubility/Shelf Life	The lyophilized protein remains stable until the expiry date when stored at -20°C.
Applications	Western blotting.
Storage	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.

GENE INFORMATION

Gene Name	NGB neuroglobin [Homo sapiens]
Synonyms	NGB; neuroglobin; HGNC: 14077; Entrez Gene: 58157; UniProtKB: Q9NPG2; Ensembl: ENSG00000165553
Gene ID	58157
mRNA Refseq	NM_021257
Protein Refseq	NP_067080
MIM	605304
UniProt ID	Q9NPG2

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Chromosome Location	14q24.3
Function	heme binding; metal ion binding; oxygen binding; oxygen transporter activity

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