Neuroglobin Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: NGB

Cat. No.:
RD172043100-B (0.1 mg)

Description

Total 161 AA. MW: 18 kDa (calculated). UniProtKB acc.no. Q9NPG2 (Met1-Glu151). N-terminal his-tag (10 extra AA). Protein identity confirmed by LC-MS/MS.

Introduction to the Molecule

Neuroglobin, 151 amino acid reside 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

Research topic

Neural tissue markers

Amino Acid Sequence

MKHHHHHHAS MERPEPELIR QSWRAVSRSP LEHGTVLFAR LFALEPDLLP LFQYNCRQFS SPEDCLSSPE FLDHIRKVML
VIDAAVTNVE DLSSLEEYLA SLGRKHRAVG VKLSSFSTVG ESLLYMLEKC LGPAFTPATR AAWSQLYGAV VQAMSRGWDG E

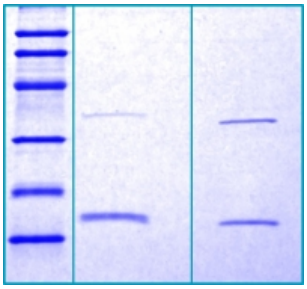
Source

E. coli

Purity

Purity as determined by densitometric image analysis: > 90%

SDS-PAGE gel



14 % SDS-PAGE separation of Human Neuroglobin:

1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa

2. Reduced and boiled sample, 2.5 µg/lane

3. Non-reduced and non-boiled sample, 2.5 µg/lane

Endotoxin

< 1.0 EU/µg

Formulation

Filtered (0.4 µm) and lyophilized from 0.5 mg/ml solution in phosphate buffered saline.

Reconstitution

Add 200 µl of deionized water to prepare a working stock solution of approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. Filter sterilize your culture media/working solutions containing this non-sterile product before using in cell culture.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Store the lyophilized protein at -80 °C. Lyophilized protein remains stable until the expiry date when stored at -80 °C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80 °C for long term storage. Reconstituted protein can be stored at 4 °C for a week.

Quality Control Test

BCA to determine quantity of the protein.
SDS-PAGE to determine purity of the protein.
LAL TEST to determine endotoxin level.

Applications

ELISA, Western blotting

Note

This product is intended for research use only.

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