



Neuroglobin Human, Mouse Monoclonal Antibody, Clone: 13C8

Product Data Sheet

Source of Antigen: *E. coli*

Host: Mouse

Isotype: IgG1

Other names: NGB

Cat. No.:

RD182043100-C8 (0.1 mg)

Research topic

Neural tissue markers

Preparation

The antibody is a mouse monoclonal antibody against recombinant Human Neuroglobin.

Amino Acid Sequence

The immunization antigen (17 kDa) is a protein containing 150 AA of recombinant Human Neuroglobin and one extra AA, N-terminal methionin (highlighted).

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

The amino acid sequence of the recombinant Human Neuroglobin is 100% homologous with the amino acid sequence of the Human Neuroglobin.

Species Reactivity

Human

Not yet tested in other species.

Purification Method

Affinity chromatography on a column with immobilized protein G.

Antibody Content

0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

Reconstitution

Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Shipping

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

Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration

See vial label.

Lot Number

See vial label.

Quality Control Test

Indirect ELISA - to determine titer of the antibody
SDS PAGE - to determine purity of the antibody

Applications

Immunohistochemistry, Western blotting

Introduction to the Molecule

Neuroglobin, 151 amino acid residue protein, mainly expressed in vertebrate brain and retina, is a recently identified member of the globin superfamily. Augmenting O₂ 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

References to this Product

- Ostojic J, Grozdanic S, Syed NA, Hargrove MS, Trent JT 3rd, Kuehn MH, Kardon RH, Kwon YH, Sakaguchi DS. *Neuroglobin and cytoglobin distribution in the anterior eye segment: a comparative immunohistochemical study.* J Histochem Cytochem. 2008 Sep;56 (9):863-72
- Ostojic J, Sakaguchi DS, de Lathouder Y, Hargrove MS, Trent JT 3rd, Kwon YH, Kardon RH, Kuehn MH, Betts DM, Grozdanic S. *Neuroglobin and cytoglobin: oxygen-binding proteins in retinal neurons.* Invest Ophthalmol Vis Sci. 2006 Mar;47 (3):1016-23
- Ostojic J, Grozdanic SD, Syed NA, Hargrove MS, Trent JT 3rd, Kuehn MH, Kwon YH, Kardon RH, Sakaguchi DS. *Patterns of distribution of oxygen-binding globins, neuroglobin and cytoglobin in human retina.* Arch Ophthalmol. 2008 Nov;126 (11):1530-6

Note

This product is for research use only.

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