Neuroglobin Human,
Chicken Polyclonal Antibody

Product Data Sheet

Source of Antigen: *E.coli*
Host: Hen

Cat. No.:
RD181043050 (0.05 mg)

Other names: NGB

Research topic
Neural tissue markers

Preparation
The antibody was raised in chicken by immunization with the 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 LEHGTVLFAR LFALEPDLLP LFQYNCRQFS SPEDCLSSPE FLDHIRKVML VIDAAVTNVE
DLSSLEEYLA SLGRKHRAVG VKLSSFSTVG ESLLYMLEKC LGPAFTPATR AAWSQLYGAV VQAMSRGWDG E

Species Reactivity
Human, Dog, Rat
Not yet tested in other species.

Purification Method
Immunoaffinity chromatography on a column with immobilized recombinant Human Neuroglobin.

Antibody Content
0.05 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 0.05 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 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 oligodeoxynucle-otide and enhanced by neuroglobin overexpression

References to this Product

- Li RC, Lee SK, Pouranfar F, Brittian KR, Clair HB, Row BW, Wang Y, Gozal D . *Hypoxia differentially regulates the expression of neuroglobin and cytoglobin in rat brain.* Brain Res . Jun 22;1096(1):173-9 (2006)
- Ostojic J, Sakaguchi DS, de Lathouder Y, Hargrove MS, Trent JT 3, Kwon YH, Kardon RH, Kuehn MH, Betts DM, Grozdanic S . *Neuroglobin and cytoglobin: oxygen-binding proteins in retinal neurons.* Invest Ophthalmol Vis Sci . Mar;47(3):1016-23 (2006)
- Rajendram R, Rao NA . *Neuroglobin in normal retina and retina from eyes with advanced glaucoma.* Br J Ophthalmol . May;91(5):663-6 (2007)

Note

This product is for research use only.

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