Neuroglobin Human,
Chicken Polyclonal Antibody

Product Data Sheet

Source of Antigen: *E.coli*  
Host: Hen  
Cat. nr.: RD181043050 (0.05 mg)

**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).

\[
\text{MERPEPELIR QSWRAVSRSPE LHGTVLFAFLFAEPDLLLP LFQYNCRQFS SPEDCLSSPE FLDHIRKVML VIDAATTNE DLSSLEEYLA SLGRKHAVG VKLSSFSTVG ESLLYMLEKC LGPAFTPATR AAWSQLYGAV VQAMSRGWDG E}
\]

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

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

**Antibody Content**
0.05 mg (determined by BCA method)

**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.

**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
ELISA, 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 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.

References to this Product

References
- Sun Y, Jin K, Mao XO, Zhu Y, Greenberg DA. Neuroglobin is up-regulated by and protects neurons from hypoxic-ischemic injury.
- Sun Y, Jin K, Peel A, Mao XO, Xie L, Greenberg DA. Neuroglobin protects the brain from experimental stroke in vivo.
- Mammen PP, Shelton JM, Goetsch SC, Williams SC, Richardson JA, Garry MG, Garry DJ. Neuroglobin, a novel member of the globin family, is expressed in focal regions of the brain.
- Garry DJ, Mammen PP. Neuroprotection and the role of neuroglobin.

Note
This product is for research use only.
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<thead>
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