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NGB Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP14753a

Specification

NGB Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9NPG2

NGB Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 58157

Other Names
Neuroglobin, NGB

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NGB Antibody (N-term) Blocking Peptide - Protein Information

Name NGB (HGNC:14077)

Function
Monomeric globin with a bis-histidyl six-coordinate heme-iron atom through which it can bind dioxygen, carbon monoxide and nitric oxide (PubMed:11473128, PubMed:12962627, PubMed:24699645). Could help transport oxygen and increase its availability to the metabolically active neuronal tissues, though its low quantity in tissues as well as its high affinity for dioxygen, which may limit its oxygen-releasing ability, argue against it (PubMed:11473128, PubMed:12860983, PubMed:12962627, PubMed:24699645). The ferrous/deoxygenated form exhibits a nitrite reductase activity and it could produce nitric oxide which in turn inhibits cellular respiration in response to hypoxia (PubMed:21296891). In its ferrous/deoxygenated state, it may also exhibit GDI (Guanine nucleotide Dissociation Inhibitor) activity toward heterotrimeric G-alpha proteins, thereby regulating signal transduction to facilitate neuroprotective responses in the wake of hypoxia and associated oxidative stress (PubMed:<a

href="http://www.uniprot.org/citations/12860983" target="_blank">12860983, PubMed:18302932).

Cellular Location
Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q9ER97}. Mitochondrion matrix {ECO:0000250|UniProtKB:Q9ER97}. Note=Enriched in mitochondrial matrix upon oxygen-glucose deprivation. {ECO:0000250|UniProtKB:Q9ER97}

Tissue Location
Predominantly expressed in brain, the strongest expression is seen in the frontal lobe, the subthalamic nucleus and the thalamus.

NGB Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

NGB Antibody (N-term) Blocking Peptide - Images

NGB Antibody (N-term) Blocking Peptide - Background

This gene encodes an oxygen-binding protein that isdistantly related to members of the globin gene family. It ishighly conserved among other vertebrates. It is expressed in thecentral and peripheral nervous system where it may be involved inincreasing oxygen availability and providing protection underhypoxic/ischemic conditions.

NGB Antibody (N-term) Blocking Peptide - References

Li, R.C., et al. J. Cereb. Blood Flow Metab. 30(11):1874-1882(2010)Astudillo, L., et al. Biophys. J. 99 (2), L16-L18 (2010) :Chuang, P.Y., et al. J. Neurotrauma 27(6):999-1006(2010)Mu, J., et al. Spectrochim Acta A Mol Biomol Spectrosc 75(5):1600-1604(2010)Raychaudhuri, S., et al. Apoptosis 15(4):401-411(2010)