



NGB, Recombinant, Human, aa1-151, His-SUMO-Tag (Neuroglobin)

Catalog number

374414

Supplier

United States Biological

Involved in oxygen transport in the brain. Hexacoordinate globin, displaying competitive binding of oxygen or the distal His residue to the iron atom. Not capable of penetrating cell membranes. The deoxygenated form exhibits nitrite reductase activity inhibiting cellular respiration via NO-binding to cytochrome c oxidase. Involved in neuroprotection during oxidative stress. May exert its anti-apoptotic activity by acting to reset the trigger level of mitochondrial cytochrome c release necessary to commit the cells to apoptosis.

Source

Recombinant protein corresponding to aa1-151 from human NGB, fused to His-SUMO-Tag at N-terminal, expressed in E. coli.

Molecular Weight

~32.9kD

AA Sequence

MERPEPELIHQSWRAVSRSPLEHGTVLFARLFALEPDLLPLFQYNCRQFSSPEDCLSSPEFLDHIRKVMLVIDAAVTN
VEDLSSLEEYLASLGRKHRAVGVKLSFSTVGESLLYMLEKCLGPAFTPATRAAWSQLYGAVVQAMSRGWDGE

Storage and Stability

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

Formulation

Supplied as a liquid in Tris, 50% glycerol.

Purity

≥90% (SDS-PAGE)

Grade

Purified

Storage

-20°C

MW

32.9

Antigen Modification



Recombinant, E. coli

Reference

1. 14-3-3 binding and phosphorylation of neuroglobin during hypoxia modulate six-to-five heme pocket coordination and rate of nitrite reduction to nitric oxide. Jayaraman T., Tejero J., Chen B.B., Blood A.B., Frizzell S., Shapiro C., Tiso M., Hood B.L., Wang X., Zhao X., Conrads T.P., Mallampalli R.K., Gladwin M.T.J. *Biol. Chem.* 286:42679-42689(2011).