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Anti-NOX4 / NADPH Oxidase 4 Antibody
Mouse Monoclonal Antibody
Catalog # AH13419

Specification

Anti-NOX4 / NADPH Oxidase 4 Antibody - Product Information

Application	**,1,3,4,10,**
Primary Accession	Q9NPH5
Other Accession	371036
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG2b, kappa**
Calculated MW	**66932**

Anti-NOX4 / NADPH Oxidase 4 Antibody - Additional Information

Gene ID 50507

Other Names
Kidney oxidase-1; Kidney superoxide-producing NADPH oxidase; KOX-1; NADPH oxidase 4; Nox4; Renal NAD(P)H-oxidase; RENOX

Format
200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Anti-NOX4 / NADPH Oxidase 4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-NOX4 / NADPH Oxidase 4 Antibody - Protein Information

Name NOX4

Synonyms RENOX

Function
NADPH oxidase that catalyzes predominantly the reduction of oxygen to H2O2 (PubMed:14966267, PubMed:15356101, PubMed:15927447, PubMed:21343298, PubMed:25062272). Can also catalyze to a smaller extent, the reduction of oxygen to superoxide (PubMed:<a

href="http://www.uniprot.org/citations/10869423" target="_blank">10869423, PubMed:11032835, PubMed:15155719, PubMed:15572675, PubMed:15927447, PubMed:16019190, PubMed:16179589, PubMed:16230378, PubMed:16324151, PubMed:25062272). May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity (PubMed:16019190). May regulate insulin signaling cascade (PubMed:14966267). May play a role in apoptosis, bone resorption and lipolysaccharide-mediated activation of NFKB (PubMed:15356101, PubMed:15572675). May produce superoxide in the nucleus and play a role in regulating gene expression upon cell stimulation (PubMed:16324151).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cell junction, focal adhesion {ECO:0000250|UniProtKB:Q924V1}. Nucleus [Isoform 3]: Cytoplasm. Cytoplasm, perinuclear region [Isoform 6]: Cytoplasm. Cytoplasm, perinuclear region

Tissue Location
Expressed by distal tubular cells in kidney cortex and in endothelial cells (at protein level). Widely expressed. Strongly expressed in kidney and to a lower extent in heart, adipocytes, hepatoma, endothelial cells, skeletal muscle, brain, several brain tumor cell lines and airway epithelial cells

Anti-NOX4 / NADPH Oxidase 4 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-NOX4 / NADPH Oxidase 4 Antibody - Images

Anti-NOX4 / NADPH Oxidase 4 Antibody - Background

The superoxide-generating NADPH oxidase includes a membrane-bound flavocytochrome containing two subunits, gp91-phox and p22-phox, and the cytosolic proteins p47-phox and p67-phox. During activation of the NADPH oxidase, p47-phox and p67-phox migrate to the plasma membrane where they associate with the flavocytochrome, cytochrome b558, to form the active enzyme complex. The p22 and gp91-phox subunits also function as surface O2 sensors that initiate cellular signaling in response to hypoxic conditions. NOX4 is a renal gp91-phox homolog highly expressed at the site of erythropoietin production in the proximal convoluted tubule epithelial cells of the renal cortex. It is also expressed in fetal tissues, placenta, glioblastoma and vascular cells.