

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	O9NPH5
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](http://www.uniprot.org/citations/14966267), PubMed:[15356101](http://www.uniprot.org/citations/15356101), PubMed:[15927447](http://www.uniprot.org/citations/15927447), PubMed:[21343298](http://www.uniprot.org/citations/21343298), PubMed:[25062272](http://www.uniprot.org/citations/25062272)). Can also catalyze to a smaller extent, the reduction of oxygen to superoxide (PubMed:[25062272](http://www.uniprot.org/citations/25062272)).

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 lipopolysaccharide-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 Cytometry](#)
- [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.