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NOX4 Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS17111

Specification

NOX4 Antibody (N-Terminus) - Product Information

Application	**IHC, IF**
Primary Accession	Q9NPH5
Other Accession	50507
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**66932**

NOX4 Antibody (N-Terminus) - Additional Information

Gene ID 50507

Other Names
NOX4, Kidney oxidase-1, KOX, RENOX, KOX-1, NADPH oxidase 4, Renal NAD(P)H-oxidase

Target/Specificity
NOX4 antibody is human, mouse, and rat reactive. At least four isoforms of NOX4 are known to exist. NOX4 is predicted to not cross-react with other NOX proteins.

Reconstitution & Storage
PBS, 0.02% sodium azide. Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
NOX4 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

NOX4 Antibody (N-Terminus) - Protein Information

Name NOX4

Synonyms RENOX

Function
NADPH oxidase that catalyzes predominantly the reduction of oxygen to H2O2 (PubMed:15356101, PubMed:14966267, PubMed:15927447, PubMed:25062272, PubMed:21343298). Can also catalyze to a smaller extent, the reduction of oxygen to superoxide (PubMed:10869423, PubMed:11032835, PubMed:<a

href="http://www.uniprot.org/citations/15155719" target="_blank">15155719, PubMed:15572675, PubMed:16230378, PubMed:16179589, PubMed:16324151, PubMed:15927447, PubMed:16019190, 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:15572675, PubMed:15356101). 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

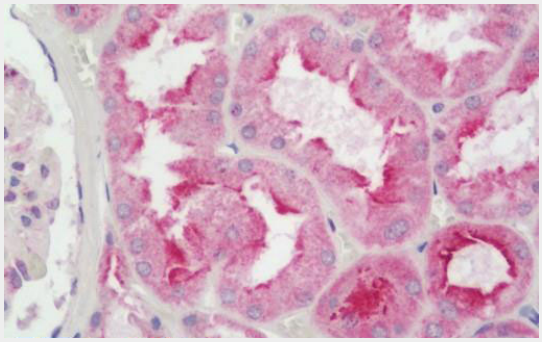
Tissue Location
Expressed by distal tubular cells in kidney cortex and in endothelial cells (at protein level). Widely expressed. Strongly expressed in kidney and to a lower extent in heart, adipocytes, hepatoma, endothelial cells, skeletal muscle, brain, several brain tumor cell lines and airway epithelial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

NOX4 Antibody (N-Terminus) - Protocols

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

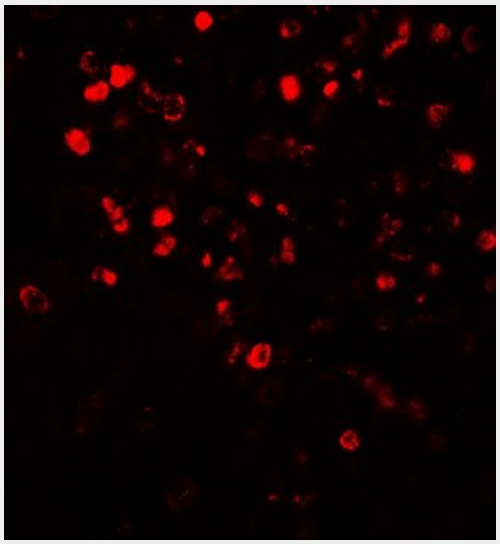
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NOX4 Antibody (N-Terminus) - Images



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Human Kidney: Formalin-Fixed, Paraffin-Embedded (FFPE)



Immunofluorescence of NOX4 in human spleen tissue with NOX4 antibody at 20 ug/ml.

NOX4 Antibody (N-Terminus) - Background

Constitutive NADPH oxidase which generates superoxide intracellularly upon formation of a complex with CYBA/p22phox. Regulates signaling cascades probably through phosphatases inhibition. May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity. May regulate insulin signaling cascade. May play a role in apoptosis, bone resorption and lipolysaccharide-mediated activation of NFKB. May produce superoxide in the nucleus and play a role in regulating gene expression upon cell stimulation. Isoform 3 is not functional. Isoform 5 and isoform 6 display reduced activity.

NOX4 Antibody (N-Terminus) - References

Geiszt M.,et al.Proc. Natl. Acad. Sci. U.S.A. 97:8010-8014(2000).
Cheng G.,et al.Gene 269:131-140(2001).
Shiose A.,et al.J. Biol. Chem. 276:1417-1423(2001).
Schwarzer C.,et al.J. Biol. Chem. 279:36454-36461(2004).
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