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NOX4 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52013

Specification

NOX4 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q9NPH5
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**67 KDa**

NOX4 Antibody - Additional Information

Gene ID 50507

Other Names
NADPH oxidase 4, 163-, Kidney oxidase-1, KOX-1, Kidney superoxide-producing NADPH oxidase, Renal NAD(P)H-oxidase, NOX4, RENOX

Format
0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage
Store at -20 °C.Stable for 12 months from date of receipt

NOX4 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:10869423, PubMed:11032835, PubMed:15155719, PubMed:15572675, PubMed:15927447, PubMed:16019190, PubMed:16179589, PubMed:<a

href="http://www.uniprot.org/citations/16230378" target="_blank">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

NOX4 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

NOX4 Antibody - Images

NOX4 Antibody - 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 4 displays an increased activity. Isoform 5 and isoform 6 display reduced activity.

NOX4 Antibody - 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).
Goyal P.,et al.Biochem. Biophys. Res. Commun. 329:32-39(2005).

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