NOX4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	NOX4, Polyclonal Antibody
Full Product Name	NOX4 Rabbit pAb
Product Gene Name	anti-NOX4 antibody
Product Synonym Names	NADPH oxidase 4; Kidney oxidase-1; KOX-1; KOX1; Kidney superoxide-producing NADPH oxidase; Renal NAD(P)H-oxidase; NOX4; RENOX
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	In phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% Sodium Azide and 50% Glycerol.
Purity/Purification	Affinity Chromatography
Preparation and Storage	Store at 4 degree C short term. Store at -20 degree C long term. Avoid freeze/thaw cycle.
Molecular Weight	67kDa
OMIM	605261
3D Structure	ModBase 3D Structure for Q9NPH5
Immunogen	A synthesized peptide derived from human NOX4
Cellular Localization	Cell Junction, Cell Membrane, Endoplasmic Reticulum, Membrane, Nucleus
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-NOX4 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF), Immunoprecipitation (IP)
Application Notes for anti-NOX4 antibody	WB: 1:1000-1:2000 IHC: 1:50-1:200 ICC/IF: 1:50-1:200 IP: 1:50
Related Product Information for anti-NOX4 antibody	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.
Other Notes	Small volumes of anti-NOX4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for NOX4 purchase	MBS8542339 is an antibody targeting NOX4. Also known as NOX4 Rabbit pAb. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NOX4. It may not necessarily be applicable to this product.

NCBI GI #	219842348

NCBI GeneID	50507
NCBI Accession #	NP_001137309.1
UniProt Primary Accession #	Q9NPH5
UniProt Related Accession #	Q9NPH5
GenBank Nucleotide #	NP_001137309.1
NCBI Official Full Name	NADPH oxidase 4 isoform c
NCBI Official Synonym Full Names	NADPH oxidase 4
NCBI Official Symbol	NOX4
NCBI Official Synonym Symbols	KOX; KOX-1; RENOX
UniProt Protein Name	NADPH oxidase 4
UniProt Synonym Protein Names	Kidney oxidase-1; KOX-1; Kidney superoxide-producing NADPH oxidase; Renal NAD(P)H-oxidase
Protein Family	NADPH oxidase
UniProt Gene Name	NOX4
UniProt Synonym Gene Names	RENOX; KOX-1
UniProt Entry Name	NOX4_HUMAN
NCBI Protein Information	NADPH oxidase 4
NCBI Summary for NOX4	This gene encodes a member of the NOX-family of enzymes that functions as the catalytic subunit the NADPH oxidase complex. The encoded protein is localized to non-phagocytic cells where it acts as an oxygen sensor and catalyzes the reduction of molecular oxygen to various reactive oxygen species (ROS). The ROS generated by this protein have been implicated in numerous biological functions including signal transduction, cell differentiation and tumor cell growth. A pseudogene has been identified on the other arm of chromosome 11. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Jan 2009]
UniProt Comments for NOX4	NOX4: 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. 7 isoforms of the human protein are produced by alternative splicing. Protein type: Cell cycle regulation; Membrane protein, multi-pass; Nucleolus; EC 1.6.3.-; Membrane protein, integral; Oxidoreductase Chromosomal Location of Human Ortholog: 11q14.2-q21 Cellular Component: endoplasmic reticulum membrane; focal adhesion; mitochondrion; perinuclear region of cytoplasm; apical plasma membrane; integral to membrane; nucleolus; stress fiber; NADPH oxidase complex Molecular Function: oxygen sensor activity; electron carrier activity; FAD binding; NAD(P)H oxidase activity; superoxide-generating NADPH oxidase activity; nucleotide binding; heme binding Biological Process: positive regulation of apoptosis; cell morphogenesis; cell aging; homocysteine metabolic process; positive regulation of smooth muscle cell migration; cardiac muscle cell differentiation; positive regulation of MAP kinase activity; negative regulation of cell proliferation; positive regulation of protein kinase B signaling cascade; positive regulation of stress fiber formation; response to hypoxia; inflammatory response; superoxide release; bone resorption
Research Articles on NOX4	**1.** this study shows that silencing of NADPH Oxidase 4 attenuates hypoxia-induced chemoresistance in neuroblastoma cells by Inhibiting PI3K/Akt-dependent glycolysis

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