

Anti-NADPH Oxidase 4 Antibody

Catalog # ABO11232

Product Information

Application	WB, IHC-P
Primary Accession	Q9JHI8
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for NADPH oxidase 4(NOX4) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	50490
Other Names	NADPH oxidase 4, 1.6.3.-, Kidney oxidase-1, KOX-1, Kidney superoxide-producing NADPH oxidase, Renal NAD(P)H-oxidase, Superoxide-generating NADPH oxidase 4, Nox4, Renox
Calculated MW	66519
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, Mouse, By Heat Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse
Subcellular Localization	Endoplasmic reticulum membrane ; Multi-pass membrane protein . Cell junction, focal adhesion . Cell membrane . May localize to plasma membrane and focal adhesions. .
Tissue Specificity	EXpressed in brain, in all layers of the cerebellum, in pyramidal cells of the Ammon horn and in Purkinje cells (at protein level). Expressed in osteoclasts, leukocytes, kidney, liver and lung. .
Source	Eukaryota
Protein Name	NADPH oxidase 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse NADPH oxidase 4(561-578aa NRNNSYGTKFEYNKES), identical to the related rat sequence and different from the related human sequence by two amino

acids.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Contains 1 FAD-binding FR-type domain.

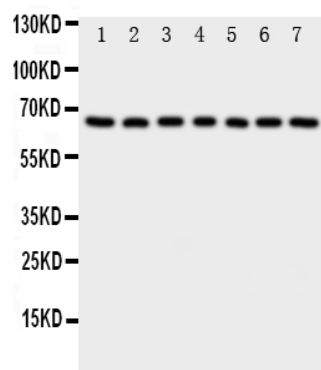
Protein Information

Name	Nox4
Synonyms	Renox
Function	NADPH oxidase that catalyzes predominantly the reduction of oxygen to H ₂ O ₂ (By similarity). Can also catalyze to a smaller extent, the reduction of oxygen to superoxide (PubMed: 10869423 , PubMed: 11098048 , PubMed: 15638999). May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity (By similarity). May regulate insulin signaling cascade (By similarity). May play a role in apoptosis, bone resorption and lipopolysaccharide- mediated activation of NFκB (By similarity). May produce superoxide in the nucleus and play a role in regulating gene expression upon cell stimulation (By similarity). Promotes ferroptosis, reactive oxygen species production and reduced glutathione (GSH) levels by activating NLRP3 inflammasome activation and cytokine release (By similarity).
Cellular Location	Cytoplasm {ECO:0000250 UniProtKB:Q9NPH5}. Endoplasmic reticulum membrane; Multi- pass membrane protein. Cell membrane {ECO:0000250 UniProtKB:Q9NPH5}; Multi-pass membrane protein. Cell junction, focal adhesion {ECO:0000250 UniProtKB:Q924V1}. Nucleus {ECO:0000250 UniProtKB:Q9NPH5}
Tissue Location	EXpressed in brain, in all layers of the cerebellum, in pyramidal cells of the Ammon horn and in Purkinje cells (at protein level). Expressed in osteoclasts, leukocytes, kidney, liver and lung.

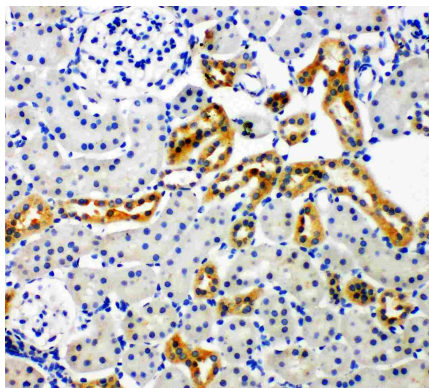
Background

NOX4(NADPH oxidase 4), also called RENAL NADPH OXIDASE or RENOX, is an enzyme that in humans is encoded by the NOX4 gene, and a member of the NOX family of NADPH oxidases. Geiszt et al.(2000) stated that the nucleotide sequence of RENOX matches that found in a genomic clone on chromosome 15. In a note added in proof, they stated that genomic clones assigned to chromosome 11 also contain sequence corresponding to RENOX. By FISH, Shiose et al.(2001) mapped the NOX4 gene to chromosome 11q14.2-q21. Geiszt et al.(2000) found that NIH 3T3 fibroblasts overexpressing transfected RENOX showed increased production of superoxide and developed signs of cellular senescence. They suggested that RENOX, as a renal source of ROS, may fulfill the function of the putative oxygen sensor in the kidney. By biochemical analysis of endogenous renal NOX4, Shiose et al.(2001) determined that the enzyme can use either NADH or NADPH as an electron donor for superoxide production.

Images



Anti-NADPH oxidase 4 antibody, ABO11232, Western blotting
 Lane 1: Rat Kidney Tissue Lysate
 Lane 2: Rat Cardiac Muscle Tissue Lysate
 Lane 3: Rat Spleen Tissue Lysate
 Lane 4: HELA Cell Lysate
 Lane 5: 293T Cell Lysate
 Lane 6: MCF-7 Cell Lysate
 Lane 7: SMMC Cell Lysate



Anti-NADPH oxidase 4 antibody, ABO11232, IHC(P)
 IHC(P): Rat Kidney Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.