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Anti-NOX4 Antibody

Catalog # AP52013

Product Information

Application	WB
Primary Accession	Q9NPH5
Reactivity	Human, Mouse, Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66932

Additional Information

Gene ID	50507
Other Names	RENOX; NADPH oxidase 4; Kidney oxidase-1; KOX-1; Kidney superoxide-producing NADPH oxidase; Renal NAD(P)H-oxidase
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human NOX4. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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: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).

	Promotes ferroptosis, reactive oxygen species production and reduced glutathione (GSH) levels by activating NLRP3 inflammasome activation and cytokine release (PubMed:39909992).
Cellular Location	Cytoplasm. 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

References

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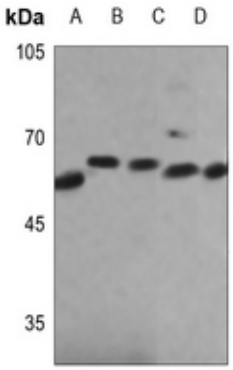
Cheng G.,et al.Gene 269:131-140(2001).
Shiose A.,et al.J. Biol. Chem. 276:1417-1423(2001).
Schwarzer C.,et al.J. Biol. Chem. 279:36454-36461(2004).
Goyal P.,et al.Biochem. Biophys. Res. Commun. 329:32-39(2005).

Images



Western blot analysis of NOX4 expression in A375 (A), U2OS (B), MCF7 (C), mouse heart (D), rat heart (E) whole cell lysates. (Predicted band size: 66 kD; Observed band size: 67 kD)

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