10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-NOX4 Rabbit Monoclonal Antibody

Catalog # ABO13341

Product Information

Application	WB, IHC, IF, ICC, IP
Primary Accession	Q9NPH5
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-NOX4 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

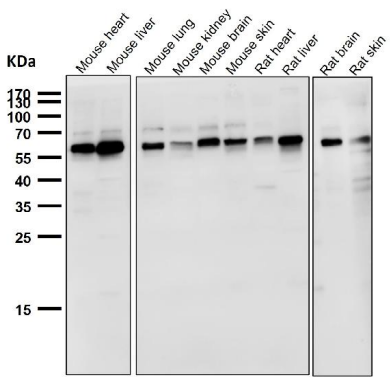
Gene ID	50507
Other Names	NADPH oxidase 4, 1.6.3.1, Kidney oxidase-1, KOX-1, Kidney superoxide-producing NADPH oxidase, Renal NAD(P)H-oxidase, NOX4, RENOX
Calculated MW	66932
Application Details	WB 1:1000-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 IP 1:50
Subcellular Localization	Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell membrane ; Multi-pass membrane protein. Cell junction, focal adhesion. May localize to plasma membrane and focal adhesions. According to PubMed:15927447, may also localize to the nucleus.
Tissue Specificity	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..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: E-14
Immunogen	A synthesized peptide derived from human NOX4
Purification	Affinity-chromatography

Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

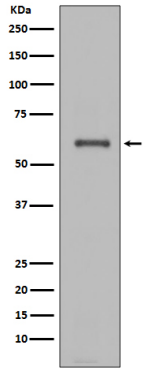
Name	NOX4
Synonyms	RENOX
Function	NADPH oxidase that catalyzes predominantly the reduction of oxygen to H2O2 (PubMed:14966267, PubMed:15356101, PubMed:15927447, PubMed:21343298, PubMed:25062272). Can also catalyze to a smaller extent, the reduction of oxygen to superoxide (PubMed:10869423, PubMed:11032835, 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

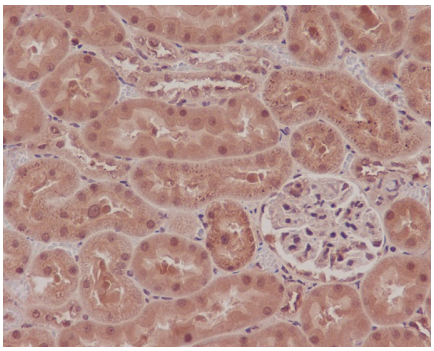
Images



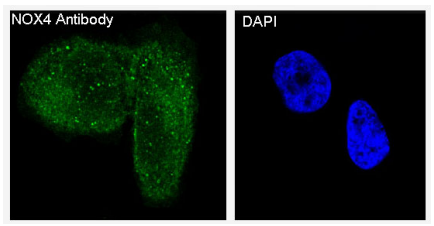
All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.

Western blot analysis of NOX4 expression in JAR cell lysate.

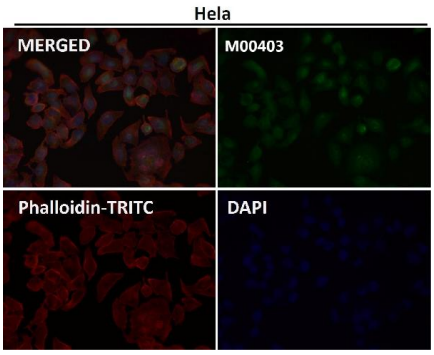




Immunohistochemical analysis of paraffin-embedded rat kidney, using NOX4 Antibody.



Immunofluorescent analysis of HeLa cells, using NOX4 Antibody.



Immunofluorescent analysis using the Antibody at 1:50 dilution.

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