

Anti-NOX4 Rabbit Monoclonal Antibody
Catalog # ABO13341**Specification**

Anti-NOX4 Rabbit Monoclonal Antibody - 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.

Anti-NOX4 Rabbit Monoclonal Antibody - 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 MW KDa

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..

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.

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.

Anti-NOX4 Rabbit Monoclonal 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: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 lipopolysaccharide-mediated activation of NFκB (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

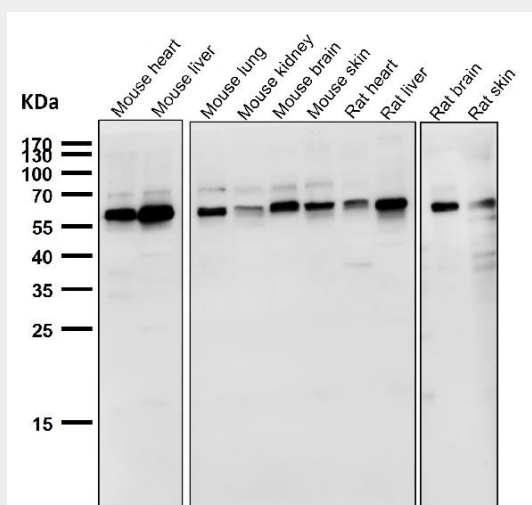
Expressed by distal tubular cells in kidney cortex and in endothelial cells (at protein level). Widely expressed. Strongly expressed in kidney and to a lower extent in heart, adipocytes, hepatoma, endothelial cells, skeletal muscle, brain, several brain tumor cell lines and airway epithelial cells

Anti-NOX4 Rabbit Monoclonal Antibody - Protocols

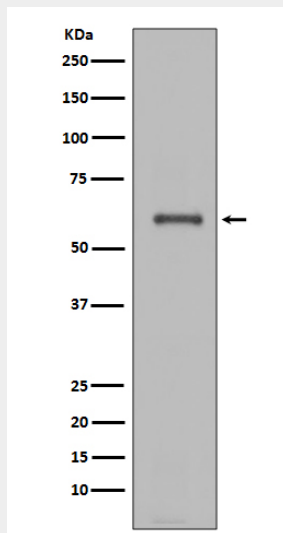
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

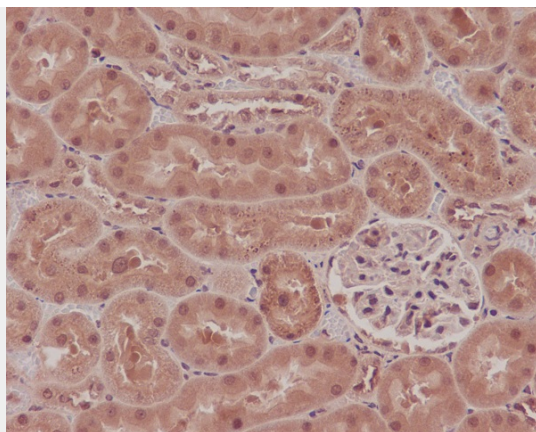
Anti-NOX4 Rabbit Monoclonal Antibody - Images



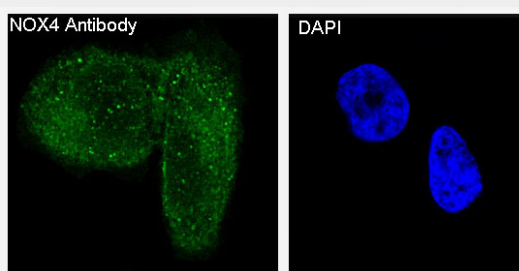
All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.



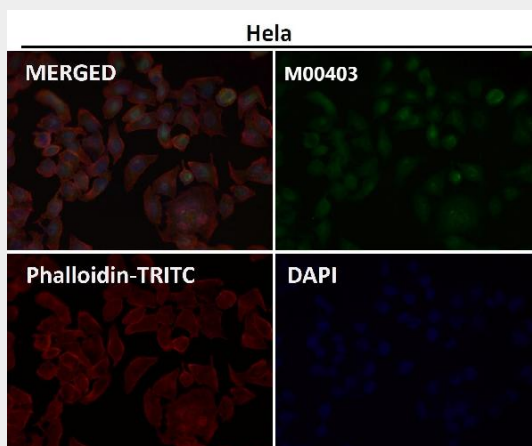
Western blot analysis of NOX4 expression in JAR cell lysate.



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.