

# Anti-NOX4 Rabbit Monoclonal Antibody

Catalog # ABO13341

## Product Information

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

## Additional Information

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|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene ID</b>                  | 50507                                                                                                                                                                                                                                                                                                        |
| <b>Other Names</b>              | NADPH oxidase 4, 1.6.3.1, Kidney oxidase-1, KOX-1, Kidney superoxide-producing NADPH oxidase, Renal NAD(P)H-oxidase, NOX4, RENOX                                                                                                                                                                             |
| <b>Calculated MW</b>            | 66932                                                                                                                                                                                                                                                                                                        |
| <b>Application Details</b>      | WB 1:1000-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:50                                                                                                                                                                                                                                           |
| <b>Subcellular Localization</b> | 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.                                                |
| <b>Tissue Specificity</b>       | 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.. |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                                                                                                                    |
| <b>Contents</b>                 | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.                                                                                                                                                                                          |
| <b>Clone Names</b>              | Clone: E-14                                                                                                                                                                                                                                                                                                  |
| <b>Immunogen</b>                | A synthesized peptide derived from human NOX4                                                                                                                                                                                                                                                                |
| <b>Purification</b>             | 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

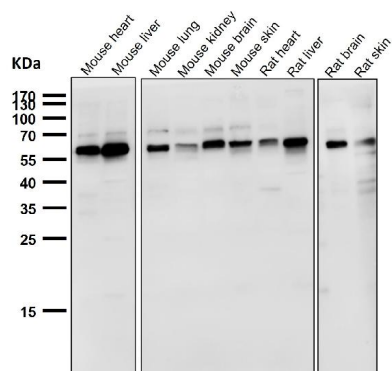
**Synonyms** RENOX

**Function** NADPH oxidase that catalyzes predominantly the reduction of oxygen to H<sub>2</sub>O<sub>2</sub> (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 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

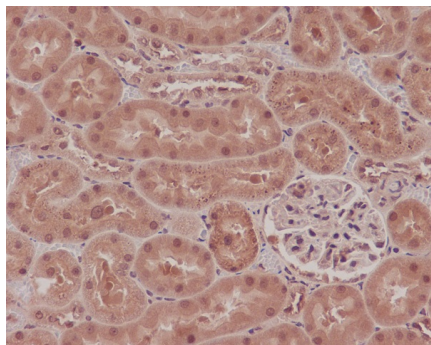
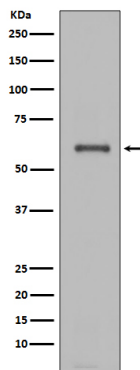
**Tissue Location** Expressed by distal tubular cells in kidney cortex and in endothelial cells (at protein level). Widely expressed. Strongly expressed in kidney and to a lower extent in heart, adipocytes, hepatoma, endothelial cells, skeletal muscle, brain, several brain tumor cell lines and airway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

## Images

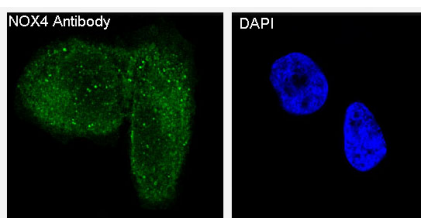


All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.

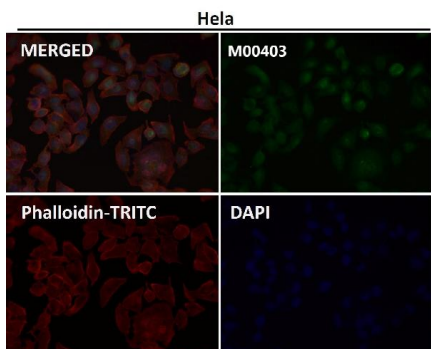
Western blot analysis of NOX4 expression in JAR cell lysate.



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'.