Data Sheet (Cat.No.TMAC-02745)

Anti-NOX4 Antibody (4J332)

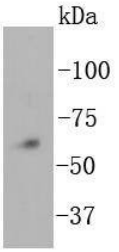
Product Details

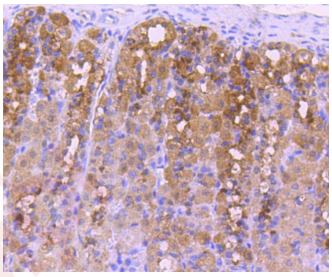
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 67 kDa.
Clone:	4J332
Purification:	ProA affinity purified

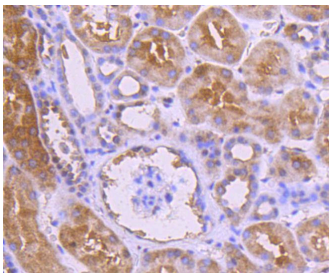
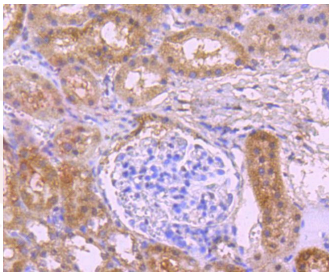
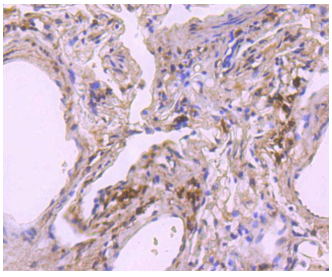
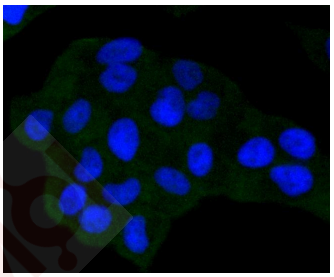
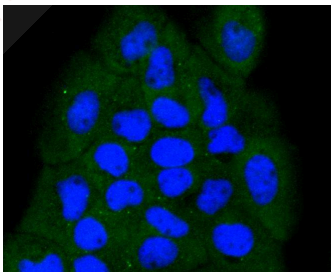
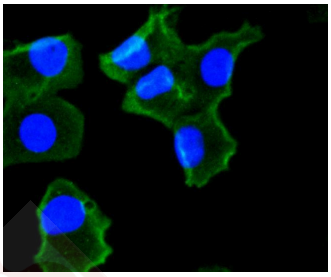
Applications

Verified Activity:

1. Western blot analysis of NOX4 on PC-12 cell lysates using anti-NOX4 antibody at 1/1,000 dilution.
2. Immunohistochemical analysis of paraffin-embedded rat stomach tissue using anti-NOX4 antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-NOX4 antibody. Counter stained with hematoxylin.
4. Immunohistochemical analysis of paraffin-embedded rat kidney tissue using anti-NOX4 antibody. Counter stained with hematoxylin.
5. Immunohistochemical analysis of paraffin-embedded human lung tissue using anti-NOX4 antibody. Counter stained with hematoxylin.
6. ICC staining NOX4 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
7. ICC staining NOX4 in A431 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
8. ICC staining NOX4 in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.





Application: ICC,IHC,IP,WB

Recommended WB: 1:1000; IHC: 1:50-200; ICC: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: Q9NPH5

Synonyms: Renal NAD(P)H-oxidase;NOX4;NADPH oxidase 4;Kidney oxidase-1 (KOX-1);RENOX;Kidney superoxide-producing NADPH oxidase

Research Background

The superoxide-generating NADPH oxidase includes a membrane-bound flavocytochrome containing two subunits, gp91-phox and p22-phox, and the cytosolic proteins p47-phox and p67-phox. During activation of the NADPH oxidase, p47-phox and p67-phox migrate to the plasma membrane where they associate with the flavocytochrome, cytochrome b558, to form the active enzyme complex. The p22 and gp91-phox subunits also function as surface O2 sensors that initiate cellular signaling in response to hypoxic conditions. Nox4 (also known as Renox) is a renal gp91-phox homolog highly expressed at the site of erythropoietin production in the proximal convoluted tubule epithelial cells of the renal cortex. Nox4 is also expressed in fetal tissues, placenta, glioblastoma and vascular cells. Like gp91-phox, the enzymatic activity of Nox4 produces superoxide anions. In vascular cells, the addition of Angiotensin II increases Nox4 expression, which suggests a role for Nox4 in vascular oxidative stress response. The gene encoding human Nox4 maps to chromosome 11q14.2-q21.

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