

Rabbit Anti-NOX4/NADPH Oxidase 4 [MD343R]: RM0060, RM0060RTU7

Intended Use: For Research Use Only

Description: 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.

Specifications:

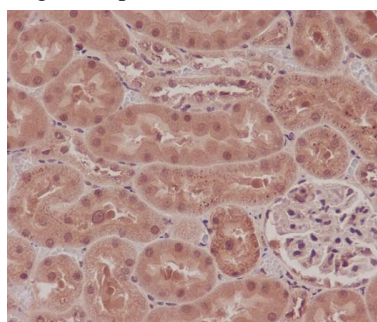
Clone: MD234R
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human, mouse, rat
 Immunogen: Synthetic peptide corresponding to human NOX4 protein
 Localization: Cytoplasm, endoplasmic reticulum membrane, cell junction
 Formulation: Antibody in PBS pH7.4, containing BSA, and ≤ 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, ICC/IF, WB
 Package:

Description	Catalog No.	Size
NOX4/NADPH Oxidase 4 Concentrated	RM0060	1 ml
NOX4/NADPH Oxidase 4 Prediluted	RM0060RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Kidney
 Concentrated Dilution: 10-100
 Pretreatment: Tris EDTA pH9.0, 15 min Pressure Cooker or 30-60 min water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE rat kidney stained with anti-NOX4 using DAB

References:

1. Unraveling the Effects of Carotenoids Accumulation in Human Papillary Thyroid Carcinoma. di Masi, A. et al. Antioxidants (Basel, Switzerland). 11, 2022.
2. Potential cardioprotective effect of octreotide via NOXs mitigation, mitochondrial biogenesis and MAPK/Erk1/2/STAT3/NF-κβ pathway attenuation in isoproterenol-induced myocardial infarction in rats. Khalifa, AA. et al. Eur J Pharmacol. 925: 174978, 2022.