

Datasheet for ABIN3044011

anti-NADPH Oxidase 4 antibody (C-Term)[2 Images](#)[2 Publications](#)[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	NADPH Oxidase 4 (NOX4)
Binding Specificity:	AA 561-578, C-Term
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for NADPH oxidase 4(NOX4) detection. Tested with WB, IHC-P in Human, Mouse, Rat.
Immunogen:	A synthetic peptide corresponding to a sequence at the C-terminus of mouse NADPH oxidase 4(561-578aa NRNNSYGTKFEYNKES), identical to the related rat sequence and different from the related human sequence by two amino acids.
Sequence:	NRNNSYGTKF EYNKES
Isotype:	IgG
Cross-Reactivity (Details):	<p>Predicted Cross Reactivity: mouse</p> <p>No cross reactivity with other proteins.</p> <p>Predicted Cross Reactivity: Species predicted to be fit for the product based on sequence similarities.</p>
Characteristics:	Rabbit IgG polyclonal antibody for NADPH oxidase 4(NOX4) detection. Tested with WB, IHC-P in

Product Details

Human,Mouse,Rat.

Gene Name: NADPH oxidase 4

Protein Name: NADPH oxidase 4

Purification: Immunogen affinity purified.

Target Details

Target: NADPH Oxidase 4 (NOX4)

Alternative Name: NOX4 ([NOX4 Products](#))

Background: NOX4(NADPH oxidase 4), also called RENAL NADPH OXIDASE or RENOX, is an enzyme that in humans is encoded by the NOX4 gene, and a member of the NOX family of NADPH oxidases. Geiszt et al.(2000) stated that the nucleotide sequence of RENOX matches that found in a genomic clone on chromosome 15. In a note added in proof, they stated that genomic clones assigned to chromosome 11 also contain sequence corresponding to RENOX. By FISH, Shiose et al.(2001) mapped the NOX4 gene to chromosome 11q14.2-q21. Geiszt et al.(2000) found that NIH 3T3 fibroblasts overexpressing transfected RENOX showed increased production of superoxide and developed signs of cellular senescence. They suggested that RENOX, as a renal source of ROS, may fulfill the function of the putative oxygen sensor in the kidney. By biochemical analysis of endogenous renal NOX4, Shiose et al.(2001) determined that the enzyme can use either NADH or NADPH as an electron donor for superoxide production.

Synonyms: Kidney oxidase-1 antibody|Kidney superoxide-producing NADPH oxidase antibody|KOX 1 antibody|KOX antibody|Kox-1 antibody|NADPH antibody|NADPH oxidase 4 antibody|Nox4 antibody|NOX4_HUMAN antibody|Renal NAD(P)H-oxidase antibody|RENOX antibody

Pathways: [Carbohydrate Homeostasis](#), [Smooth Muscle Cell Migration](#)

Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Rat, Predicted Species: Mouse
IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Rat, Predicted Species: Human, Mouse,
Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.
Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. Other applications have not been tested.

Application Details

Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Thimerosal, 0.05 mg Sodium azide.

Preservative: Thimerosal (Merthiolate), Sodium azide

Precaution of Use: This product contains Sodium azide and Thimerosal (Merthiolate): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

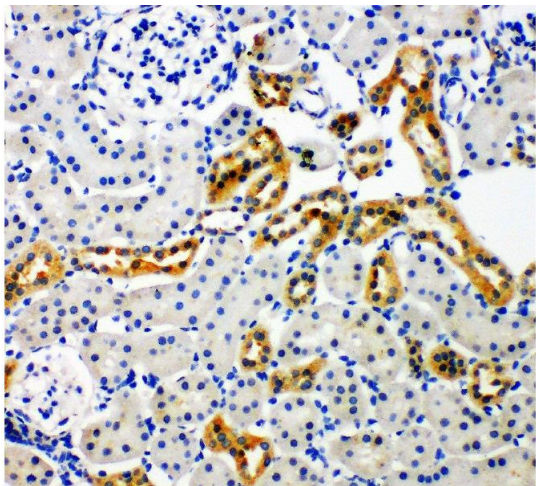
Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Expiry Date: 12 months

Publications

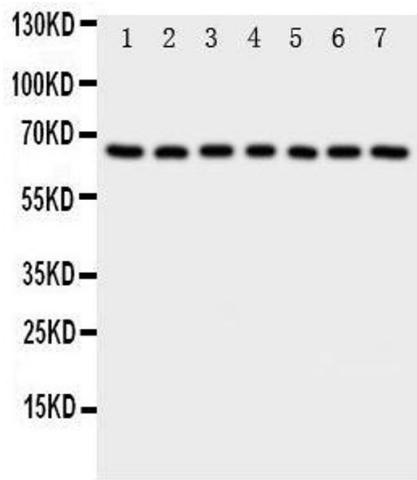
Product cited in: Liu, Hong, Li, Ren, Wang, Xu, Shi, Xu: "A Cross Talk Between BRG1 and Males Absent on the First Contributes to Reactive Oxygen Species Production in a Mouse Model of Nonalcoholic Steatohepatitis." in: **Antioxidants & redox signaling**, (2018) ([PubMed](#)).

Meyer, Fredette, Daniel, Sharma, Amann, Arterburn, Barton, Prossnitz: "Obligatory role for GPER in cardiovascular aging and disease." in: **Science signaling**, Vol. 9, Issue 452, pp. ra105, (2017) ([PubMed](#)).



Immunohistochemistry

Image 1. Anti-NADPH oxidase 4 antibody, IHC(P) IHC(P):
Rat Kidney Tissue



Western Blotting

Image 2.