

For Research Use Only

# NOX4 Polyclonal antibody

Catalog Number: 14347-1-AP

Featured Product

252 Publications



## Basic Information

**Catalog Number:**

14347-1-AP

**Size:**

600 µg/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG5687

**GenBank Accession Number:**

BC040105

**GeneID (NCBI):**

50507

**UNIPROT ID:**

Q9NPH5

**Full Name:**

NADPH oxidase 4

**Calculated MW:**

67 kDa

**Observed MW:**

62 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:1000-1:8000

IHC 1:50-1:500

IF 1:10-1:100

## Applications

**Tested Applications:**

FC, IF, IHC, WB, ELISA

**Cited Applications:**

WB, IP, IF, FC, IHC, CoIP

**Species Specificity:**

human, mouse, rat

**Cited Species:**

human, rat, mouse, zebrafish, pig

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB:** BxPC-3 cells, HeLa cells, HEK-293 cells, mouse kidney tissue, JAR cells, mouse lung tissue

**IHC:** human kidney tissue,

**IF:** BxPC-3 cells,

## Background Information

NOX4 (NADPH oxidase 4) is a phagocyte-type oxidase, similar to that responsible for the production of large amounts of reactive oxygen species (ROS) in neutrophil granulocytes with resultant antimicrobial activity and it has been postulated to function in the kidney as an oxygen sensor that regulates the synthesis of erythropoietin in the renal cortex. Studies have reported molecular masses of Nox4 protein by western blot analysis ranging from 55 to 80 kDa. The truncated NOX4 splice variant D (28 kDa) lacks the majority of the transmembrane domain and has been shown to produce higher levels of ROS and DNA damage compared to its prototype. NOX4D has previously been shown to localise to the nucleus and nucleolus in various cell types and is implicated in the generation of reactive oxygen species (ROS) and DNA damage. (PMID: 11728818, PMID: 29285262, PMID: 14670934)

## Notable Publications

Author	Pubmed ID	Journal	Application
Lihua Xu	36175999	J Nanobiotechnology	WB
Zhijing Song	36246605	Front Genet	WB
Jing Sun	34650437	Front Pharmacol	WB,IF

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

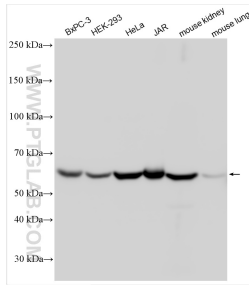
T: 4006900926

E: Proteintech-CN@ptglab.com

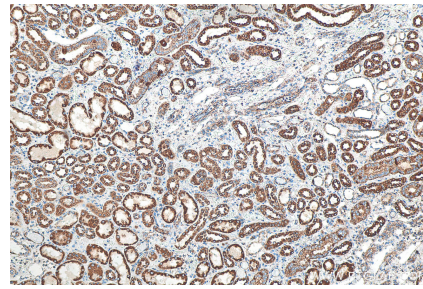
W: ptgcn.com

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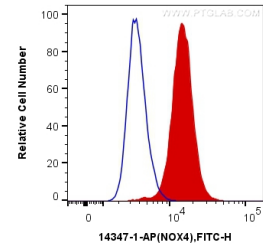
## Selected Validation Data



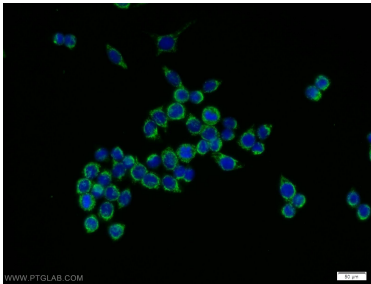
Various lysates were subjected to SDS PAGE followed by western blot with 14347-1-AP (NOX4 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 14347-1-AP (NOX4 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.2 ug Anti-Human NOX4 (14347-1-AP) and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of BxPC-3 cells using 14347-1-AP (NOX4 antibody) at dilution of 1:25 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).