

For Research Use Only

NOX4 Polyclonal antibody

Catalog Number:14347-1-AP

Featured Product

312 Publications



Basic Information

Catalog Number:

14347-1-AP

Size:

150ul , Concentration: 600 ug/ml by Nanodrop;

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:

58-67 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:8000

IHC 1:50-1:500

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, pig, zebrafish

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/ICC : A549 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

*** 20ul sizes contain 0.1% BSA

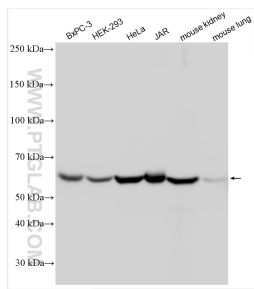
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

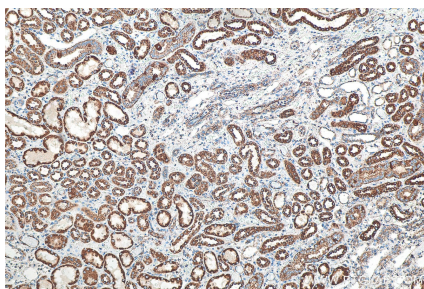
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

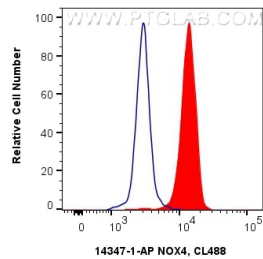
Selected Validation Data



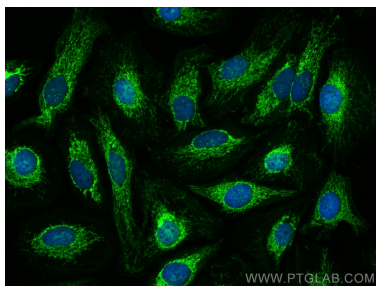
Various lysates were subjected to SDS PAGE followed by western blot with 14347-1-AP (NOX4 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



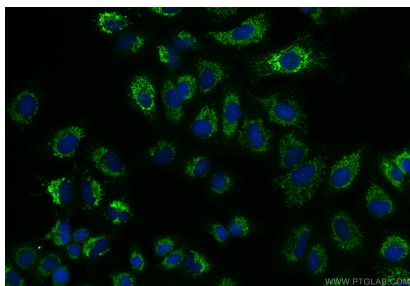
Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 14347-1-AP (NOX4 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10⁶ HeLa cells were intracellularly stained with 0.4 ug Anti-Human NOX4 (14347-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP, Clone:) (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using NOX4 antibody (14347-1-AP) at dilution of 1:400 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).



Immunofluorescent analysis of (4% PFA) fixed A549 cells using NOX4 antibody (14347-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).