BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

# Anti-NADPH oxidase 5 NOX5 Antibody Picoband®

**Catalog Number:** PA1947

## About NOX5

NOX5 (Nadph Oxidase 5), also known as NOX5A or NOX5B, is a protein which in humans is encoded by the NOX5 gene. The International Radiation Hybrid Mapping Consortium mapped the NOX5 gene to chromosome 15. NOX5 is a novel NADPH oxidase that generates superoxide and functions as an H+ channel in a Ca2+-dependent manner. Banfi et al. (2001) found that, when heterologously expressed, NOX5 was quiescent in unstimulated cells. However, in response to elevations of the cytosolic Ca2+ concentration, it generated large amounts of superoxide. Using RT-PCR and Southern and Western blot analyses, Kamiguti et al. (2005) identified NOX5 as a flavin-containing Ca2+-dependent oxidase present in hairy leukemic cells (HC), but not normal B cells.

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## Overview

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|---|---|
| Product Name | Anti-NADPH oxidase 5 NOX5 Antibody Picoband® |
| Reactive Species | Human |
| Description | Boster Bio Anti-NADPH oxidase 5 NOX5 Antibody catalog # PA1947. Tested in IHC, ICC/IF, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | IF, IHC, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4. |
| Storage Instructions | Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | Q96PH1 |

## Technical Details

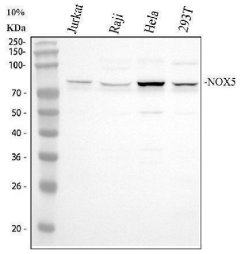
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| Immunogen | A synthetic peptide corresponding to a sequence at the C-terminus of human NOX5. |

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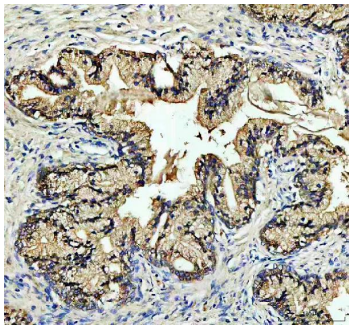
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| Recommended Detection Systems | Boster recommends ECL Plus Western Blotting Substrate (Catalog # AR1196-200) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC. |
| Cross Reactivity | No cross-reactivity with other proteins |
| Isotype | Rabbit IgG |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.1-0.5ug/ml, Human<br>Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human<br>Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human |

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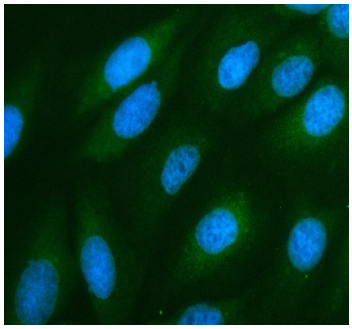
# Anti-NADPH oxidase 5 NOX5 Antibody Picoband® (PA1947) Images




Western blot analysis of NOX5 using anti-NOX5 antibody (PA1947). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: human Raji whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human 293T whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NOX5 antigen affinity purified polyclonal antibody (PA1947) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for NOX5 at approximately 86 kDa. The expected band size for NOX5 is at 86 kDa.



IHC analysis of NOX5 using anti-NOX5 antibody (PA1947). NOX5 was detected in a paraffin-embedded section of human prostatic cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NOX5 Antibody (PA1947) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of NOX5 using anti-NOX5 antibody (PA1947). NOX5 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-NOX5 Antibody (PA1947) overnight at 4°C. Fluoro488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

## 1 Publications Citing This Product

1. PubMed ID: 28099519, Jafari N1, Kim H1,2, Park R1,2, Li L1, Jang M1,2, Morris AJ3, Park J1,2, Huang C PLoS One. 2017 Jan 18;12(1):e0170327. doi: 10.1371/journal.pone.0170327. eCollection 2017. CRISPR-Cas9 Mediated NOX4 Knockout Inhibits Cell Proliferation and Invasi...

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