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# Anti-NOX5 Antibody

Catalog # ABO11252

## Product Information

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| **Application** | WB, IHC-P, ICC |
| **Primary Accession** | Q96PH1 |
| **Host** | Rabbit |
| **Reactivity** | Human |
| **Clonality** | Polyclonal |
| **Format** | Lyophilized |
| **Description** | Rabbit IgG polyclonal antibody for NADPH oxidase 5(NOX5) detection. Tested with WB, IHC-P, ICC in Human. |
| **Reconstitution** | Add 0.2ml of distilled water will yield a concentration of 500ug/ml. |

## Additional Information

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| **Gene ID** | 79400 |
| **Other Names** | NADPH oxidase 5, 1.6.3.-, NOX5 |
| **Calculated MW** | 86439 |
| **Application Details** | Immunocytochemistry , 0.5-1 □g/ml, Human, -<br>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat<br>Western blot, 0.1-0.5 □g/ml, Human |
| **Subcellular Localization** | Membrane ; Multi-pass membrane protein . |
| **Tissue Specificity** | Mainly expressed in pachytene spermatocytes of testis and in lymphocyte-rich areas of spleen and lymph nodes. Isoform v1 is expressed in spleen. Isoform v2 is expressed in testis. Also detected in ovary, placenta, pancreas, cardiac fibroblasts. Expressed in B-cells and prostate malignant cells. Isoform v1 and isoform v3 are expressed in epithelial colorectal adenocarcinoma cells. Isoform v2 and isoform v4 are expressed in endothelial cells. Isoform v1, isoform v2, isoform v3 and isoform v4 are expressed in pulmonary artery smooth muscle cells. Isoform v2 and isoform v5 are expressed in microvascular endothelial cells (at protein level). . |
| **Source** | Eukaryota |
| **Protein Name** | NADPH oxidase 5 |
| **Contents** | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. |

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| **Immunogen** | A synthetic peptide corresponding to a sequence at the C-terminus of human NOX5(747-765aa KVLKGHCEKFGFRFFQENF). |
| **Purification** | Immunogen affinity purified. |
| **Cross Reactivity** | No cross reactivity with other proteins |
| **Storage** | At -20˚C for one year. After r˚Constitution, 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. |
| **Sequence Similarities** | Contains 4 EF-hand domains. |

## Protein Information

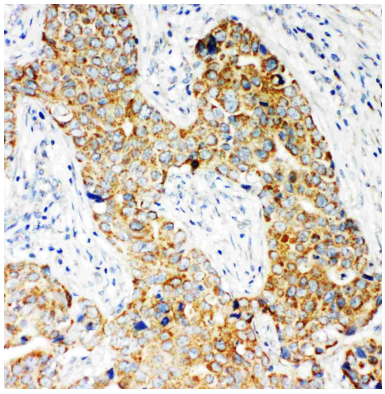
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|---|---|
| **Name** | NOX5 ( HGNC:14874) |
| **Function** | Calcium-dependent NADPH oxidase that catalyzes the generation of superoxide from molecular oxygen utilizing NADPH as an electron donor (PubMed:12686516). Also synthesizes NAADP from its reduced NAADPH form which promotes Ca(2+) signaling during T cell activation (PubMed:34784249). May play a role in cell growth and apoptosis (PubMed:12686516). |
| **Cellular Location** | [Isoform v2]: Endoplasmic reticulum. Cell membrane; Multi-pass membrane protein. Note=Calcium-sensitive association and dissociation between the N- and C-terminal domains appears to facilitate its localization to the cell membrane |
| **Tissue Location** | Mainly expressed in pachytene spermatocytes of testis and in lymphocyte-rich areas of spleen and lymph nodes. Also detected in ovary, placenta, pancreas, cardiac fibroblasts. Expressed in B-cells and prostate malignant cells. [Isoform v2]: Expressed in microvascular endothelial cells (at protein level) (PubMed:17275676). Expressed in testis (PubMed:11483596). Expressed in endothelial cells and pulmonary artery smooth muscle cells (PubMed:17275676, PubMed:22427510) [Isoform v4]: Expressed in endothelial cells and pulmonary artery smooth muscle cells. |

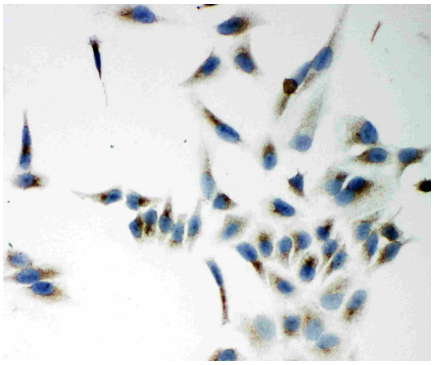
## Background

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.

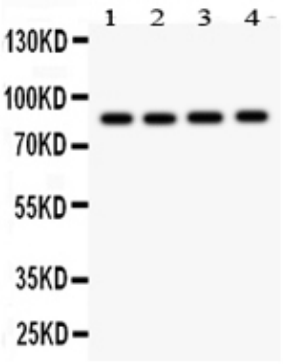
## Images

Anti-NOX5 antibody, ABO11252, IHC(P)IHC(P): Human Mammary Cancer Tissue





Anti-NOX5 antibody, ABO11252, ICCICC: HELA Cell




Anti-NOX5 antibody, ABO11252, Western blottingAll lanes: Anti (ABO11252) at 0.5ug/mlLane 1: 22RV1 Whole Cell Lysate at 40ugLane 2: PANC Whole Cell Lysate at 40ugLane 3: HELA Whole Cell Lysate at 40ugLane 4: SKOV Whole Cell Lysate at 40ugPredicted bind size: 86KDObserved bind size: 86KD

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