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Anti-NOX5 Antibody
Catalog # ABO11252

Specification

Anti-NOX5 Antibody - Product Information

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.

Anti-NOX5 Antibody - Additional Information

Gene ID 79400

Other Names
NADPH oxidase 5, 1.6.3.-, NOX5

Calculated MW
86439 MW KDa

Application Details
Immunocytochemistry , 0.5-1 µg/ml, Human, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/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). .

Protein Name
NADPH oxidase 5

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

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.

Anti-NOX5 Antibody - Protein Information

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). 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.

Anti-NOX5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety

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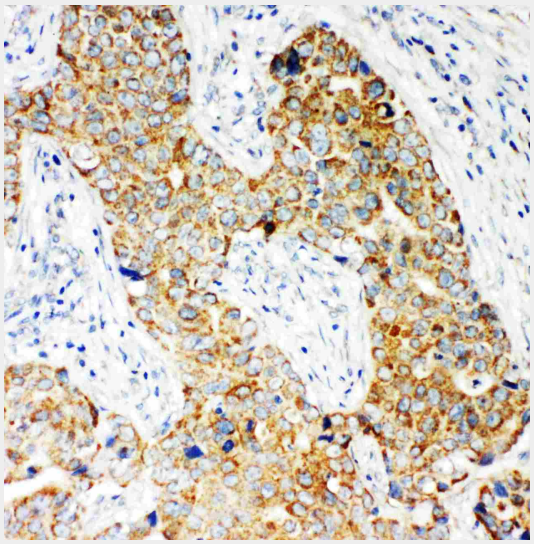
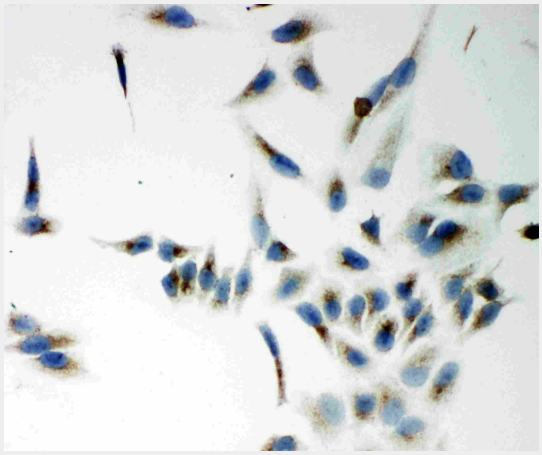
- Cell Culture

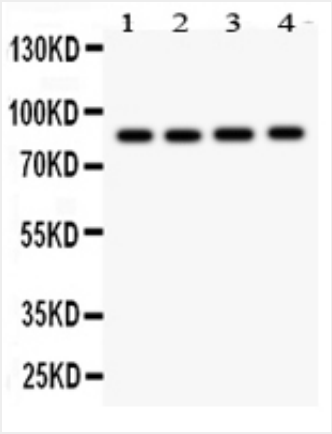
Anti-NOX5 Antibody - Images



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

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Lysate at 40ugLane 4: SKOV Whole Cell Lysate at 40ugPredicted bind size: 86KDObserved bind size: 86KD

Anti-NOX5 Antibody - 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.