

Anti-NOX5 Antibody

Catalog # ABO11252

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.

Additional Information

Gene ID	79400
Other Names	NADPH oxidase 5, 1.6.3.-, NOX5
Calculated MW	86439
Application Details	Immunocytochemistry , 0.5-1 μ g/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, By Heat Western blot, 0.1-0.5 μ 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.

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

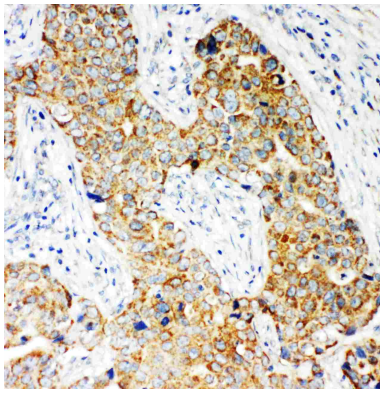
Name	NOX5 (HGNC:14874)
Function	Calcium-dependent NADPH oxidase that catalyzes the generation of superoxide from molecular oxygen utilizing NADPH as an electron donor (PubMed: 12686516). Also synthesizes NAADP from its reduced NAADPH form which promotes Ca(2+) signaling during T cell activation (PubMed: 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

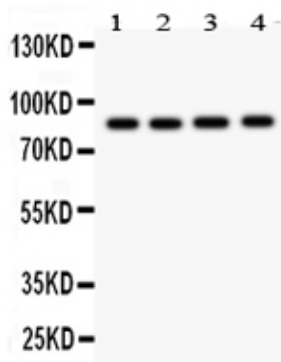
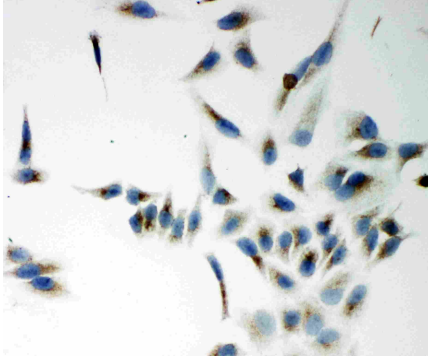
NOX5(Nadph Oxidase 5), also known as NOX5A or NOX5B, is a protein which in humans is encoded by the NOX5 gene. The International Radiation Hybrid Mapping Consortium mapped the NOX5 gene to chromosome 15. NOX5 is a novel NADPH oxidase that generates superoxide and functions as an H⁺ channel in a Ca²⁺-dependent 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 blotting
All lanes: Anti (ABO11252) at 0.5ug/ml
Lane 1: 22RV1 Whole Cell Lysate at 40ug
Lane 2: PANC Whole Cell Lysate at 40ug
Lane 3: HELA Whole Cell Lysate at 40ug
Lane 4: SKOV Whole Cell Lysate at 40ug
Predicted bind size: 86KD
Observed bind size: 86KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.