



NADPH oxidase 4 Rabbit mAb

Catalog No	YP-rAb-18059
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IF,ELISA
Gene Name	NOX4 RENOX
Protein Name	NADPH oxidase 4 (Kidney oxidase-1) (KOX-1) (Kidney superoxide-producing NADPH oxidase) (Renal NAD(P)H-oxidase)
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	WB 1:1000-5000; IF 1:200-1000; ELISA 1:5000-20000;
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	
Observed Band	67kD
Calculated Molecular Weight	67kD
Cell Pathway	Cytoplasm
Tissue Specificity	Expressed by distal tubular cells in kidney cortex and in endothelial cells (at protein level). Widely expressed. Strongly expressed in kidney and to a lower extent in heart, adipocytes, hepatoma, endothelial cells, skeletal muscle, brain, several brain tumor cell lines and airway epithelial cells.
Function	developmental stage:Expressed in fetal kidney and fetal liver.,enzyme regulation:Inhibited by plumbagin (By similarity). Activated by phorbol 12-myristate 13-acetate (PMA). Activated by insulin. Inhibited by diphenylene iodonium.,Function:Constitutive NADPH oxidase which generates superoxide intracellularly upon formation of a complex with CYBA/p22phox. Regulates signaling cascades probably through phosphatases inhibition. May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity. May regulate insulin signaling cascade. May play a role in apoptosis, bone resorption and lipolysaccharide-mediated activation of NFKB. Isoform 3 is not functional. Isoform 4 displays an increased activity while isoform 5 and isoform 6 display reduced activity. May produce superoxide in the nucleus and play a role





in regulating gene expression upon cell stimulation.,induction:By 7-ketocholesterol (at protein level).,PTM:Isoform 3 and isoform 4 are N-glycosylated. Isoform 4 glycosylation is required for its proper function.,similarity:Contains 1 FAD-binding FR-type domain.,similarity:Contains 1 ferric oxidoreductase domain.,subcellular location:May localize to plasma membrane and focal adhesions. May also localize to the nucleus (PubMed:15927447).,subunit:Interacts with protein disulfide isomerase (By similarity). Interacts with, relocalizes and stabilizes CYBA/p22phox. Interacts with TLR4.,tissue specificity:Expressed by distal tubular cells in kidney cortex and in endothelial cells (at protein level). Widely expressed. Strongly expressed in kidney and to a lower extent in heart, adipocytes, hepatoma, endothelial cells, skeletal muscle, brain, several brain tumor cell lines and airway epithelial cells.,

Background

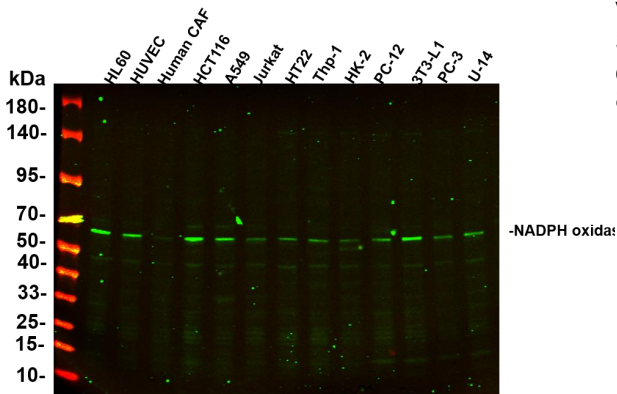
This gene encodes a member of the NOX-family of enzymes that functions as the catalytic subunit the NADPH oxidase complex. The encoded protein is localized to non-phagocytic cells where it acts as an oxygen sensor and catalyzes the reduction of molecular oxygen to various reactive oxygen species (ROS). The ROS generated by this protein have been implicated in numerous biological functions including signal transduction, cell differentiation and tumor cell growth. A pseudogene has been identified on the other arm of chromosome 11. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Jan 2009],

matters needing attention

Avoid repeated freezing and thawing!

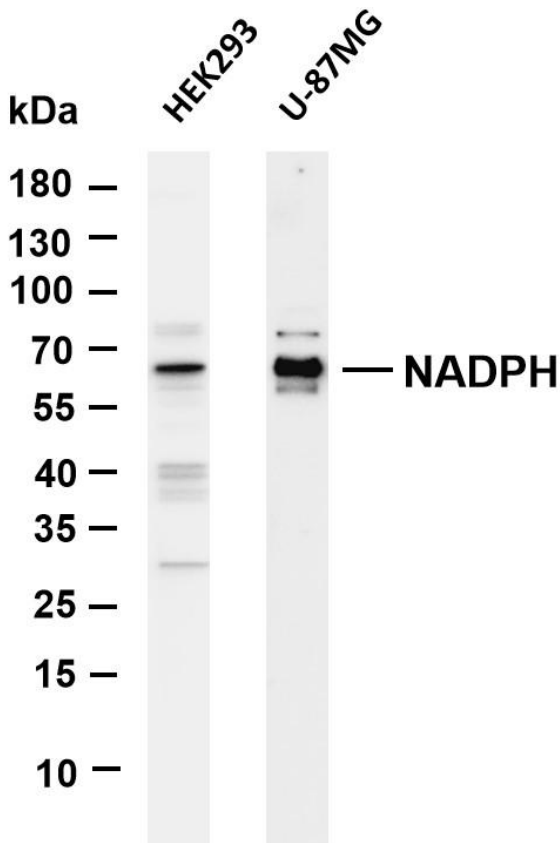
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4 °C, over night with a 1:2500 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody





Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-NADPH antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HEK293 Lane 2: U-87MG Predicted band size: 67kDa Observed band size: 67kDa

