

Basic Information

Product Name	Anti-NOX4 Antibody	
Gene Name	NOX4	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse NADPH oxidase 4, identical to the related rat sequence and different from the related human sequence by two amino acids.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	65 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied.

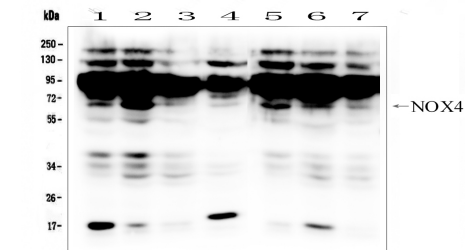
Background Information

NADPH oxidase 4 is an enzyme that in humans is encoded by the NOX4 gene, and is a member of the NOX family of NADPH oxidases. 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.

Reference

Anti-NOX4 Antibody被引用在11文献中。

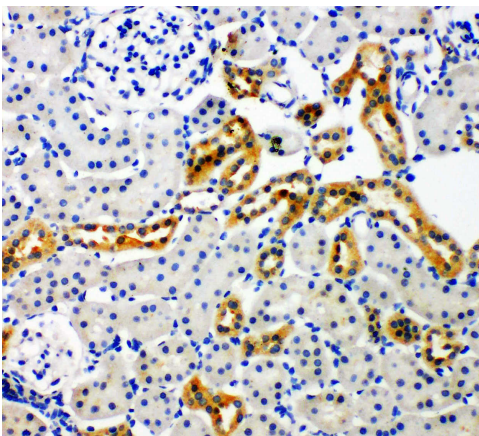
Selected Validation Data



Western blot analysis of NOX4 using anti-NOX4 antibody (BA2813). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

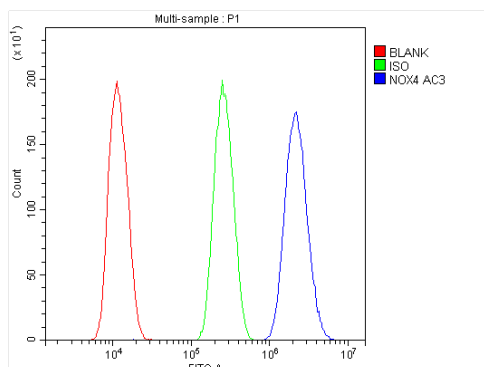
Lane 1: human HepG2 whole cell lysates,
Lane 2: human SW620 whole cell lysates,
Lane 3: human HK-2 whole cell lysates,
Lane 4: human HL-60 whole cell lysates,
Lane 5: human 293T whole cell lysates,
Lane 6: human SW579 whole cell lysates,
Lane 7: human SK-OV-3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-NOX4 antigen affinity purified polyclonal antibody (BA2813) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for NOX4 at approximately 65 kDa. The expected band size for NOX4 is at 67 kDa.



IHC analysis of NOX4 using anti-NOX4 antibody (BA2813).

NOX4 was detected in a paraffin-embedded section of rat kidney tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-NOX4 Antibody (BA2813) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of U2OS cells using anti-NOX4 antibody (BA2813).

Overlay histogram showing U2OS cells stained with BA2813 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NOX4 Antibody (BA2813) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.