Product datasheet

Anti-NOX4 Antibody

Catalog Number: *BA2813*

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Basic Information

Product Name	Anti-NOX4 Antibody
Gene Name	NOX4
Source	Rabbit
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, IHC-F, ICC, FCM
Contents	500 ug/ml antibody with PBS， 0.02% NaN3 , 1 mg BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse NADPH oxidase 4(561-578aa NRNNSYGTKFEYNKES), 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	85KD
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunohistochemistry in frozen section (IHC-F): 1:50-400 Immunocytochemistry: 1:50-400 Flow cytometry (FCM): 1-3 μg/1x10^6 cells (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℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

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.

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Reference

Anti-NOX4 Antibody被引用在2文献中。

Selected Validation Data

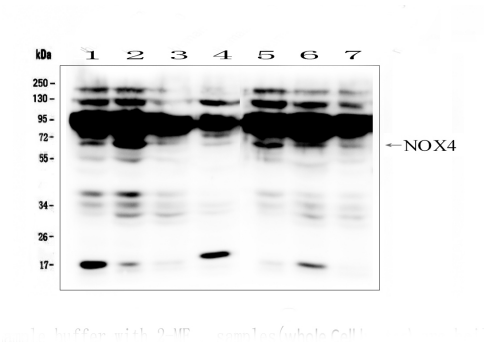

Figure 1. Western blot analysis of NADPH oxidase 4/NOX4 using anti-NADPH oxidase 4/NOX4 antibody (BA2813). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. 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 Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NADPH oxidase 4/NOX4 antigen affinity purified polyclonal antibody (Catalog # BA2813) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NADPH OXIDASE 4/NOX4 at approximately 67KD. The expected band size for NADPH OXIDASE 4/NOX4 is at 67KD.

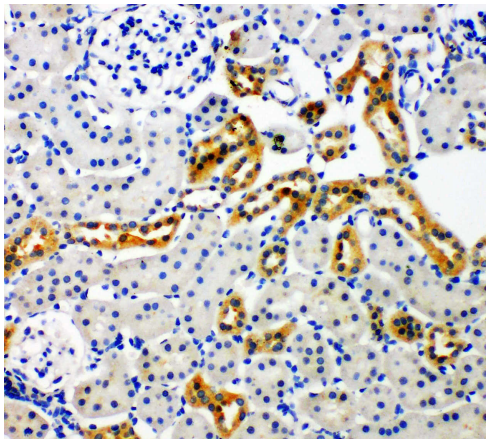

Figure 2. IHC analysis of NADPH OXIDASE 4/NOX4 using anti-NADPH OXIDASE 4/NOX4 antibody (BA2813).NADPH OXIDASE 4/NOX4 was detected in paraffin-embedded section of rat kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-NADPH OXIDASE 4/NOX4 Antibody (BA2813) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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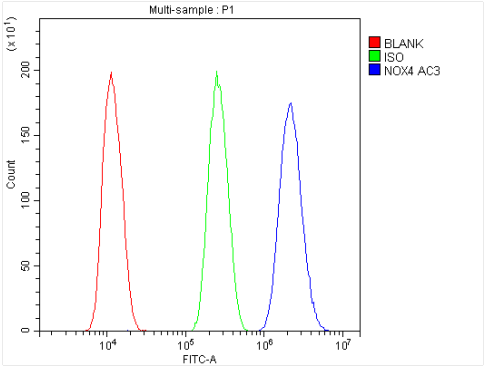

Figure 3. Flow Cytometry analysis of U20S cells using anti-NADPH oxidase 4/NOX4 antibody (BA2813).
Overlay histogram showing U20S cells stained with BA2813 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti- NADPH oxidase 4/NOX4 Antibody (BA2813, 1µg/1x10^6 cells) for 30 min at 20°C. DyLight488 conjugated goat anti-rabbit IgG (BA1127, 5-10µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.