

## Anti-NOX2/gp91phox/CYBB Antibody

Catalog Number: PA1667

### About CYBB

NOX2(NADPH OXIDASE 2), also called CYBB(CYTOCHROME b(-245), BETA SUBUNIT), p91-PHOX or GP91-1, is a human gene encoding a glycoprotein. NOX2 is an essential component of phagocytic NADPH-oxidase, a membrane-bound enzyme complex that generates large quantities of microbicidal superoxide and other oxidants upon activation. It is mapped on Xp11.4. NOX2 is a heterodimer composed of an alpha chain of relative molecular mass 23 kD and a beta chain of 76 to 82 kD. NOX2 assembled on DC phagosomes in a gp91-phox subunit-dependent manner, and that reactive oxygen species were produced in a more sustained manner in immature DC phagosomes than in macrophage phagosomes. As a major player in innate immune responses in neutrophils, NOX2 is also involved in adaptive immunity through its activity in DCs. In heart cells, physiologic stretch rapidly activates reduced-form NOX2 to produce reactive oxygen species(ROS) in a process dependent on microtubules(X-ROS signaling).

### Overview

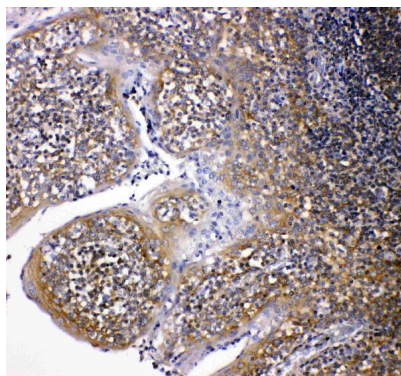
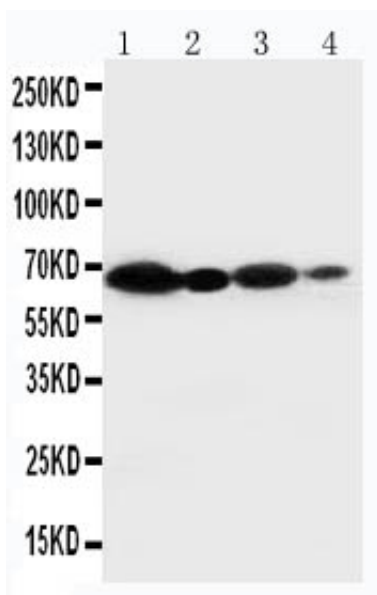
Product Name	Anti-NOX2/gp91phox/CYBB Antibody
Reactive Species	Human, Mouse, Rat
Description	Rabbit IgG polyclonal antibody for Cytochrome b-245 heavy chain(CYBB) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Application	IHC-P, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .
Storage Instructions	At -20°C for one year. After reconstitution, 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.
Host	Rabbit
Uniprot ID	P04839

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human NOX2(442-459aa YWLCRDTHAFEWFADLLQ), identical to the related rat and mouse sequences.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross reactivity with other proteins
Isotype	N/A
Form	Lyophilized
Concentration	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5µg/ml, Human, Rat, Mouse Immunohistochemistry(Paraffin-embedded Section), 0.5-1µg/ml, Human, Rat, Mouse, By Heat  For protocols please visit <a href="https://www.bosterbio.com/protocol-and-troubleshooting/">https://www.bosterbio.com/protocol-and-troubleshooting/</a>

## Anti-NOX2/gp91phox/CYBB Antibody (PA1667) Images

Anti-NOX2/gp91phox antibody, PA1667, Western blotting  
 Lane 1: HELA Cell Lysate  
 Lane 2: JURKAT Cell Lysate  
 Lane 3: MCF-7 Cell Lysate  
 Lane 4: SMMC Cell Lysate



Anti-NOX2/gp91phox antibody, PA1667, IHC(P)  
IHC(P): Human Intestinal Cancer Tissue

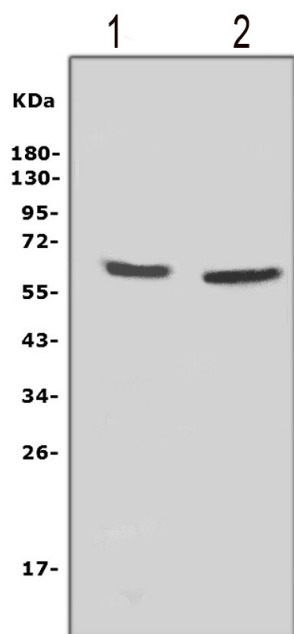
Figure 3. Western blot analysis of NOX2 using anti- NOX2 antibody (PA1667).

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: rat thymus tissue lysates,

Lane 2: rat brain tissue 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-NOX2 antigen affinity purified polyclonal antibody (Catalog # PA1667) at 0.5  $\mu$ g/mL overnight at 4 $^{\circ}$ 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 NOX2 at approximately 65KD. The expected band size for NOX2 is at 65KD.

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