

Anti-NOX2/gp91phox/CYBB Antibody Picoband®

Catalog Number: A00328

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 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

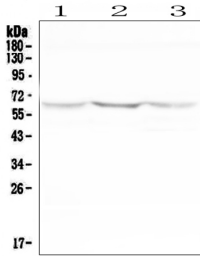
Product Name	Anti-NOX2/gp91phox/CYBB Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-NOX2/gp91phox/CYBB Antibody Picoband® catalog # A00328. Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P04839

Technical Details

Immunogen	E. coli-derived human NOX2/gp91phox recombinant protein (Position: F416-D500).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml ELISA, 0.1-0.5ug/ml

Anti-NOX2/gp91phox/CYBB Antibody Picoband® (A00328) Images



Western blot analysis of NOX2 using anti-NOX2 antibody (A00328). 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 U-87MG cell lysate, Lane 2: human Hela cell lysate, Lane 3: human HepG2 cell lysate. 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 # A00328) at 0.5 ug/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 NOX2 at approximately 65KD. The expected band size for NOX2 is at 65KD.

7 Publications Citing This Product

1. PubMed ID: 10.1038/srep30146, Maternal inflammation activated ROS-p38 MAPK predisposes offspring to heart damages caused by isoproterenol via augmenting ROS generation
2. PubMed ID: 10.1097/FJC.0000000000000534, Suppression of Oxidative Stress and Apoptosis in Electrically Stimulated Neonatal Rat Cardiomyocytes by Resveratrol and Underlying Mechanisms
3. PubMed ID: 32112504, Zhou H,Wang H,Shi N,Wu F.Potential Protective Effects of the Water-Soluble Chinese Propolis on Hypertension Induced by High-Salt Intake. Clin Transl Sci.2020 Sep;13(5):907-915.doi:10.1111/cts.12770.Epub 2020 Apr 8.PMID:32112504.

Visit bosterbio.com/anti-nox2-gp91phox-antibody-a00328-boster.html to see all 7 publications.

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