Datasheet for ABIN5692996

anti-CYBB antibody (AA 416-500)

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Overview

Quantity:	100 µg
Target:	CYBB
Binding Specificity:	AA 416-500
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CYBB antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	E. coli-derived human NOX2/gp91phox recombinant protein (Position: F416-D500).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for NOX2/gp91phox detection. Tested with WB, Direct ELISA in Human,Mouse,Rat.

Target Details

Target:	CYBB
Alternative Name:	CYBB (CYBB Products)
Background:	Synonyms: Cytochrome b-245 heavy chain, CGD91-phox, Cytochrome b(558) subunit beta, Cytochrome b558 subunit beta, Heme-binding membrane glycoprotein gp91phox, NADPH oxidase 2, Neutrophil cytochrome b 91 kDa polypeptide, Superoxide-generating NADPH oxidase

Target Details

	heavy chain subunit, gp91-1, gp91-phox, p22 phagocyte B-cytochrome, CYBB, NOX2 Tissue Specificity: Detected in neutrophils (at protein level). Background: 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).
UniProt:	P04839

Application Details

Application Notes:	Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot. Application Details: Western blot, 0.1-0.5 µg/mL Direct ELISA, 0.1-0.5 µg/mL
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na_2HPO_4, 0.05 mg NaN_3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	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

Handling

and thawing.

Publications

Product cited in:

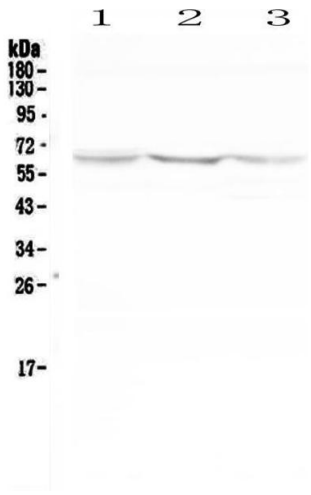
Zhang, Deng, Lai, Guan, Sun, Han, Wang, Pan, Ji, Luo, Huang, Tang, Gu, Dan, Yu, Namaka, Zhang, Deng, Li: "Maternal inflammation activated ROS-p38 MAPK predisposes offspring to heart damages caused by isoproterenol via augmenting ROS generation." in: **Scientific reports**, Vol. 6, pp. 30146, (2018) (PubMed).

Deep, Kumar, Jain, Dhar, Panigrahi, Hussain, Agarwal, El-Elimat, Sica, Oberlies, Agarwal: " Graviola inhibits hypoxia-induced NADPH oxidase activity in prostate cancer cells reducing their proliferation and clonogenicity." in: **Scientific reports**, Vol. 6, pp. 23135, (2017) (PubMed).

Meyer, Fredette, Daniel, Sharma, Amann, Arterburn, Barton, Prossnitz: "Obligatory role for GPER in cardiovascular aging and disease." in: **Science signaling**, Vol. 9, Issue 452, pp. ra105, (2017) (PubMed).

Du, Yang, Zhou, Liu, Li, Chen, Gao: "D?galactose?induced mitochondrial DNA oxidative damage in the auditory cortex of rats." in: **Molecular medicine reports**, Vol. 10, Issue 6, pp. 2861-7, (2014) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of NOX2 using anti-NOX2 antibody . 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 #) 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 NOX2 at approximately 65KD. The expected band size for NOX2 is at 65KD.