

Datasheet for ABIN3044252
anti-CYBB antibody (Middle Region)[2 Images](#)[7 Publications](#)[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	CYBB
Binding Specificity:	AA 442-459, Middle Region
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Cytochrome b-245 heavy chain(CYBB) detection. Tested with WB, IHC-P in Human,Mouse,Rat.
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human NOX2(442-459aa YWLCRDTHAFEFWADLLQ), identical to the related rat and mouse sequences.
Sequence:	YWLCRDTHAF EWFADLLQ
Isotype:	IgG
Cross-Reactivity (Details):	<p>Predicted Cross Reactivity: mouse</p> <p>No cross reactivity with other proteins.</p> <p>Predicted Cross Reactivity: Species predicted to be fit for the product based on sequence similarities.</p>
Characteristics:	Rabbit IgG polyclonal antibody for Cytochrome b-245 heavy chain(CYBB) detection. Tested with WB, IHC-P in Human,Mouse,Rat.

Product Details

Gene Name: cytochrome b-245, beta polypeptide

Protein Name: Cytochrome b-245 heavy chain

Purification: Immunogen affinity purified.

Target Details

Target: CYBB

Alternative Name: CYBB ([CYBB Products](#))

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 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).

Synonyms: AMCBX2 antibody|CGD antibody|CGD91-phox antibody|CY24B_HUMAN antibody|CYBB antibody|Cytochrome b 245, beta polypeptide antibody|Cytochrome b(558) beta chain antibody|Cytochrome b(558) subunit beta antibody|Cytochrome b-245 heavy chain antibody|Cytochrome b558 subunit beta antibody|GP91 PHOX antibody|gp91-1 antibody|gp91-phox antibody|GP91PHOX antibody|Heme-binding membrane glycoprotein gp91phox antibody|NADPH oxidase 2 antibody|Neutrophil cytochrome b 91 kDa polypeptide antibody|NOX2 antibody|p22 phagocyte B-cytochrome antibody|P91 PHOX antibody|p91-PHOX antibody|Superoxide-generating NADPH oxidase heavy chain subunit antibody

UniProt: [P04839](#)

Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Rat, Predicted Species: Mouse
IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Rat, Predicted Species: Mouse,

Application Details

Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.

Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. Other applications have not been tested.

Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Thimerosal, 0.05 mg Sodium azide.

Preservative: Thimerosal (Merthiolate), Sodium azide

Precaution of Use: This product contains Sodium azide and Thimerosal (Merthiolate): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

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 and thawing.

Expiry Date: 12 months

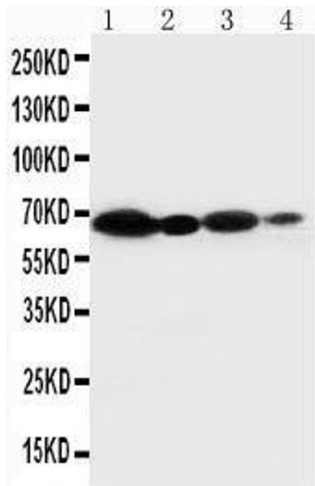
Publications

Product cited in: Lang, Schulte, Goddard, Hedrick, Schulte, Wei, Schmiedt: "Transplantation of mouse embryonic stem cells into the cochlea of an auditory-neuropathy animal model: effects of timing after injury." in: **Journal of the Association for Research in Otolaryngology : JARO**, Vol. 9, Issue 2, pp. 225-40, (2008) ([PubMed](#)).

Lang, Ebihara, Schmiedt, Minamiguchi, Zhou, Smythe, Liu, Ogawa, Schulte: "Contribution of bone marrow hematopoietic stem cells to adult mouse inner ear: mesenchymal cells and fibrocytes." in: **The Journal of comparative neurology**, Vol. 496, Issue 2, pp. 187-201, (2006) ([PubMed](#)).

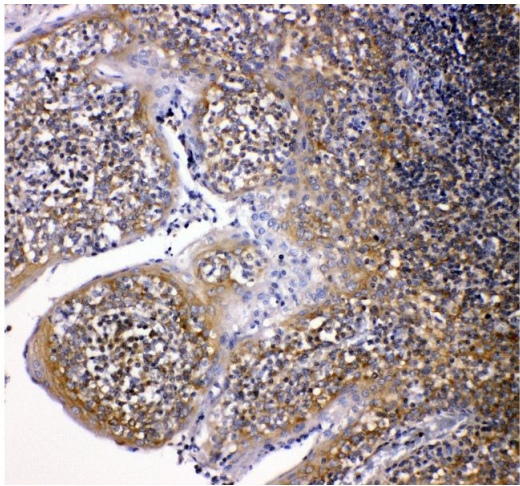
There are more publications referencing this product on: [Product page](#)

Validation report #300029 for Immunohistochemistry (IHC)



Western Blotting

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



Immunohistochemistry

Image 2. Anti-NOX2/gp91phox antibody, IHC(P) IHC(P):
Human Intestinal Cancer Tissue