

Rabbit anti-Human NOX2/gp91phox/CYBB Polyclonal Antibody | anti-CYBB antibody

Anti-NOX2/gp91phox/CYBB Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19218	Rabbit	Human	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

NOX2/gp91phox/CYBB; Polyclonal Antibody; Anti-NOX2/gp91phox/CYBB Antibody; 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 heavy chain subunit; gp91-1; gp91-phox; p22 phagocyte B-cytochrome; CYBB; NOX2; cytochrome b-245; beta polypeptide; anti-CYBB antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for NOX2/gp91phox/CYBB detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.005mg NaN3.
Applicable Applications for anti-CYBB antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.25-0.5ug/ml Human IHC-P: 2-5ug/ml Human ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human NOX2/gp91phox/CYBB recombinant protein (Position: E124-R559).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM (Flow Cytometry)

Figure 8. Flow Cytometry analysis of THP-1 cells using anti-NOX2/gp91phox/CYBB antibody (AAA19218). Overlay histogram showing THP-1 cells stained with AAA19218 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NOX2/gp91phox/CYBB Antibody (AAA19218, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 7. IF analysis of NOX2/gp91phox/CYBB using anti- NOX2/gp91phox/CYBB antibody (AAA19218).NOX2/gp91phox/CYBB was detected in immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL rabbit anti-NOX2/gp91phox/CYBB Antibody (AAA19218) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 6. IHC analysis of NOX2/gp91phox/CYBB using anti-NOX2/gp91phox/CYBB antibody (AAA19218).NOX2/gp91phox/CYBB was detected in paraffin-embedded section of human melanoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-NOX2/gp91phox/CYBB Antibody (AAA19218) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 5. IHC analysis of NOX2/gp91phox/CYBB using anti-NOX2/gp91phox/CYBB antibody (AAA19218).NOX2/gp91phox/CYBB was detected in paraffin-embedded section of human testicular cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-NOX2/gp91phox/CYBB Antibody (AAA19218) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 4. IHC analysis of NOX2/gp91phox/CYBB using anti-NOX2/gp91phox/CYBB antibody (AAA19218).NOX2/gp91phox/CYBB was detected in paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-NOX2/gp91phox/CYBB Antibody (AAA19218) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of NOX2/gp91phox/CYBB using anti-NOX2/gp91phox/CYBB antibody (AAA19218).NOX2/gp91phox/CYBB was detected in paraffin-embedded section of human bladder cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-NOX2/gp91phox/CYBB Antibody (AAA19218) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-CYBB antibody	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).
References	1. Bionda, C., Li, X. J., van Bruggen, R., Eppink, M., Roos, D., Morel, F., Stasia, M. -J. Functional analysis of two-amino acid substitutions in gp91phox in a patient with X-linked flavocytochrome b(558)-positive chronic granulomatous disease by means of transgenic PLB-985 cells. Hum. Genet. 115: 418-427, 2004. 2. Bolscher, B. G. J. M., de Boer, M., de Klein, A., Weening, R. S., Roos, D. Point mutations in the beta-subunit of cytochrome b(558) leading to X-linked chronic granulomatous disease. Blood 77: 2482-2487, 1991. 3. "Entrez Gene: CYBB cytochrome b-245, beta polypeptide (chronic granulomatous disease)".

NCBI AND UNIPROT INFORMATION

NCBI GI #	115211
NCBI GeneID	1536
UniProt Accession #	P04839; Q2PP16; A8K138
Molecular Weight	65,336 Da
NCBI Official Full Name	Cytochrome b-245 heavy chain
NCBI Official Synonym Full Names	cytochrome b-245, beta polypeptide
NCBI Official Symbol	CYBB
NCBI Official Synonym Symbols	CGD; NOX2; AMCBX2; GP91-1; GP91PHOX; p91-PHOX; GP91-PHOX
NCBI Protein Information	cytochrome b-245 heavy chain; CGD91-phox; NADPH oxidase 2; p22 phagocyte B-cytochrome; cytochrome b558 subunit beta; neutrophil cytochrome b 91 kDa polypeptide; heme-binding membrane glycoprotein gp91phox; superoxide-generating NADPH oxidase heavy chain s
UniProt Protein Name	Cytochrome b-245 heavy chain
UniProt Gene Name	CYBB
UniProt Synonym Gene Names	NOX2; Cytochrome b558 subunit beta
UniProt Entry Name	CY24B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
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