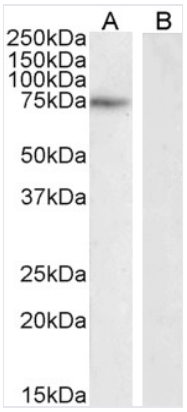
GP91-PHOX/NOX2 Antibody – Goat

PRODUCT OVERVIEW

Product Name	GP91-PHOX/NOX2, Antibody
Full Product Name	Goat Anti-GP91-PHOX/NOX2 Antibody
Product Gene Name	anti-GP91-PHOX/NOX2 antibody
Product Synonym Gene Name	CYBB
Product Synonym Names	CYBB; cytochrome b-245, beta polypeptide; CGD; GP91-1; GP91-PHOX; GP91PHOX; NOX2; p91-PHOX; CGD91-phox; NADPH oxidase 2; cytochrome b(558) subunit beta; cytochrome b-245 heavy chain; cytochrome b558 subunit beta; heme-binding membrane glycoprotein gp91phox; neutrophil cytochrome b 91 kDa polypeptide; p22 phagocyte B-cytochrome; superoxide-generating NADPH oxidase heavy chain subunit
Host	Goat
Species Reactivity	Human, Mouse
Form/Format	Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin.
Purity/Purification	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Preparation and Storage	Aliquot and store at -20 degree C. Minimize freezing and thawing.
Antibody/Peptide Pairs	CYBB peptide (MBS428894) is used for blocking the activity of GP91-PHOX/NOX2 antibody (MBS423856)
OMIM	300481
3D Structure	ModBase 3D Structure for P04839
Immunogen	Peptide with sequence CDKQEFQDAWKLPK, from the internal region of the protein sequence according to NP_000388.2.
Peptide Sequence	CDKQEFQDAWKLPK
Epitope	Internal region
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Applications Tested/Suitable for anti-GP91-PHOX/NOX2 antibody	Peptide ELISA (EIA), WB
Application Notes for anti-GP91-PHOX/NOX2 antibody	Peptide ELISA: antibody detection limit dilution 1:8000 WB: Approx 75kDa band observed in lysates of cell line Daudi and in Mouse Spleen lysates (calculated MW of 65.3kDa according to Human NP_000388.2 and Mouse NP_031833.3). This band was successfully blocked by incubation with the mmunising peptide, and corresponds to the glycosylated form as described in the literature (V. Munnamalai et al, 2014: PMID: 24702317 and J. Van Buul er al, 2005: PMID: 15706079) Recommended concentration: 1-3ug/ml. Primary incubation 1 hour at room temperature.
Related Product Information for anti-GP91-PHOX/NOX2 antibody	MBS423856 is an antibody targeting GP91-PHOX/NOX2. Also known as Goat Anti-GP91-PHOX/NOX2 Antibody. Reactive in Human, Mouse. Host: Goat.
Other Notes	Small volumes of anti-GP91-PHOX/NOX2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-GP91-PHOX/NOX2 antibody
(1ug/ml) staining of Daudi cell lysate (A) + peptide (B) (35ug protein in RIPA buffer). Detected by chemiluminescence.



Western Blot (WB) of anti-GP91-PHOX/NOX2 antibody
(1ug/ml) staining of Mouse Spleen lysate (A) + peptide (B) (35ug protein in RIPA buffer). Detected by chemiluminescence.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GP91-PHOX/NOX2. It may not necessarily be applicable to this product.

NCBI GI #	6996021
NCBI GeneID	1536
NCBI Accession #	NP_000388.2
UniProt Primary Accession #	P04839
UniProt Related Accession #	P04839
GenBank Nucleotide #	NP_000388.2
NCBI Official Full Name	cytochrome b-245 heavy chain
NCBI Official Synonym Full Names	cytochrome b-245 beta chain
NCBI Official Symbol	CYBB
NCBI Official Synonym Symbols	CGD; NOX2; IMD34; AMCBX2; GP91-1; GP91PHOX; p91-PHOX; GP91-PHOX
UniProt Protein Name	Cytochrome b-245 heavy chain
UniProt Synonym Protein Names	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
UniProt Gene Name	CYBB
UniProt Synonym Gene Names	NOX2; Cytochrome b558 subunit beta
UniProt Entry Name	CY24B_HUMAN
NCBI Protein Information	cytochrome b-245 heavy chain
NCBI Summary for GP91-PHOX/NOX2	Cytochrome b (-245) is composed of cytochrome b alpha (CYBA) and beta (CYBB) chain. It has been proposed as a primary component of the microbicidal oxidase system of phagocytes. CYBB deficiency is one of five described biochemical defects associated with chronic granulomatous disease (CGD). In this disorder, there is decreased activity of phagocyte NADPH oxidase; neutrophils are able to phagocytize bacteria but cannot kill them in the phagocytic vacuoles. The cause of the killing defect is an inability to increase the cell's respiration and consequent failure to deliver activated oxygen into the phagocytic vacuole. [provided by RefSeq, Jul 2008]

UniProt Comments for GP91-PHOX/NOX2	CYBB: Critical component of the membrane-bound oxidase of phagocytes that generates superoxide. It is the terminal component of a respiratory chain that transfers single electrons from cytoplasmic NADPH across the plasma membrane to molecular oxygen on the exterior. Also functions as a voltage-gated proton channel that mediates the H(+) currents of resting phagocytes. It participates in the regulation of cellular pH and is blocked by zinc. Defects in CYBB are a cause of granulomatous disease,chronic, X-linked (CGD). A disorder characterized by the inability of neutrophils and phagocytes to kill microbes that they have ingested. Patients suffer from life-threatening bacterial/fungal infections. Defects in CYBB are a cause of mycobacteriosis atypical X-linked type 2 (AMCBX2). A rare condition characterized by predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis. Other microorganisms rarely cause severe clinical disease in individuals with susceptibility to mycobacterial infections. Protein type: Oxidoreductase; Mitochondrial; EC 1.-.-.-; Membrane protein, integral; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: Xp21.1 Cellular Component: Golgi apparatus; phagocytic vesicle membrane; rough endoplasmic reticulum; cell soma; mitochondrion; integral to plasma membrane; dendrite; plasma membrane; NADPH oxidase complex Molecular Function: protein binding; FAD binding; electron carrier activity; protein heterodimerization activity; metal ion binding; superoxide-generating NADPH oxidase activity; heme binding; voltage-gated ion channel activity Biological Process: response to drug; respiratory burst; interaction with host; superoxide metabolic process; antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-dependent; antigen processing and presentation of peptide antigen via MHC class I; innate immune response; antigen processing and presentation of exogenous peptide antigen via MHC class I; ion transport; vascular endothelial growth factor receptor signaling pathway; inflammatory response; superoxide release; hydrogen peroxide biosynthetic process; response to nutrient Disease: Immunodeficiency 34; Granulomatous Disease, Chronic, X-linked
Research Articles on GP91-PHOX/NOX2	**1.** The observation leads to the hypothesis that, in adults, regular exercise preserves artery dilation through Nox2 decreased activity.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/human-mouse-antibody/gp91-phox-nox2/423856