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CYBA Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12149b

Specification

CYBA Antibody (C-term) - Product Information

Application	**IF, WB,E**
Primary Accession	P13498
Other Accession	NP_000092.2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**21013**
Antigen Region	**117-145**

CYBA Antibody (C-term) - Additional Information

Gene ID 1535

Other Names
Cytochrome b-245 light chain, Cytochrome b(558) alpha chain, Cytochrome b558 subunit alpha, Neutrophil cytochrome b 22 kDa polypeptide, Superoxide-generating NADPH oxidase light chain subunit, p22 phagocyte B-cytochrome, p22-phox, p22phox, CYBA

Target/Specificity
This CYBA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 117-145 amino acids from the C-terminal region of human CYBA.

Dilution
IF~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CYBA Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CYBA Antibody (C-term) - Protein Information

Name CYBA (HGNC:2577)

Function Subunit of NADPH oxidase complexes that is required for the NADPH oxidase activity that generates, in various cell types, superoxide from molecular oxygen utilizing NADPH as an electron donor (PubMed:15824103, PubMed:17140397, PubMed:38355798). Subunit of the phagocyte NADPH oxidase complex that mediates the transfer of electrons from cytosolic NADPH to O2 to produce the superoxide anion (O2(-)) (PubMed:38355798). In the activated complex, electrons are first transferred from NADPH to flavin adenine dinucleotide (FAD) and subsequently transferred via two heme molecules to molecular oxygen, producing superoxide through an outer-sphere reaction (PubMed:38355798). Activation of the NADPH oxidase complex is initiated by the assembly of cytosolic subunits of the NADPH oxidase complex with the core NADPH oxidase complex to form a complex at the plasma membrane or phagosomal membrane (PubMed:38355798). This activation process is initiated by phosphorylation dependent binding of the cytosolic NCF1/p47-phox subunit to the C-terminus of CYBA/p22-phox (PubMed:19948736). Aassociates with NOX3 to form a functional NADPH oxidase constitutively generating superoxide (PubMed:15824103, PubMed:17140397).

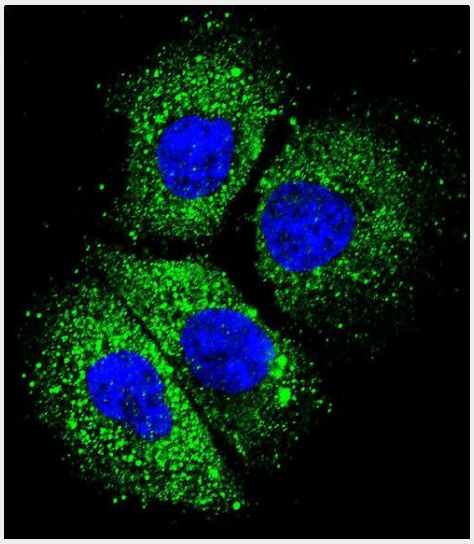
Cellular Location
Cell membrane; Multi-pass membrane protein

CYBA Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CYBA Antibody (C-term) - Images



Confocal immunofluorescent analysis of CYBA Antibody (C-term)(Cat#AP12149b) with NCI-H292 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain

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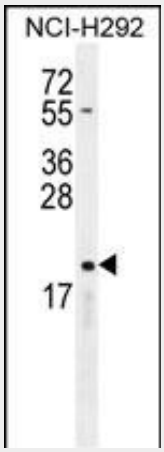
the cell nuclear (blue).



CYBA Antibody (C-term) (Cat. #AP12149b) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the CYBA antibody detected the CYBA protein (arrow).

CYBA Antibody (C-term) - Background

Cytochrome b is comprised of a light chain (alpha) and a heavy chain (beta). This gene encodes the light, alpha subunit which has been proposed as a primary component of the microbicidal oxidase system of phagocytes. Mutations in this gene are associated with autosomal recessive chronic granulomatous disease (CGD), that is characterized by the failure of activated phagocytes to generate superoxide, which is important for the microbicidal activity of these cells.

CYBA Antibody (C-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Katakami, N., et al. Atherosclerosis 212(2):534-538(2010)
Tu, Y.C., et al. Acta Pharmacol. Sin. 31(7):874-880(2010)
Moreno, M.U., et al. Drug News Perspect. 23(5):316-324(2010)
Cross, D.S., et al. BMC Genet. 11, 51 (2010) :