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p47 phox (Ab-345) Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50679

Product Information

Application	WB
Primary Accession	P14598
Host	Rabbit
Clonality	polyclonal
Calculated MW	44682

Additional Information

Gene ID	653361
Other Names	Neutrophil cytosol factor 1, NCF-1, 47 kDa autosomal chronic granulomatous disease protein, 47 kDa neutrophil oxidase factor, NCF-47K, Neutrophil NADPH oxidase factor 1, Nox organizer 2, Nox-organizing protein 2, SH3 and PX domain-containing protein 1A, p47-phox, NCF1, NOXO2, SH3PXD1A
Dilution	WB~~1:1000
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	NCF1 (HGNC:7660)
Synonyms	NOXO2, SH3PXD1A
Function	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:2547247, PubMed:2550933, 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:12732142, PubMed:19801500).

Cellular Location	Cytoplasm, cytosol. Membrane; Peripheral membrane protein; Cytoplasmic side
Tissue Location	Detected in peripheral blood monocytes and neutrophils (at protein level).

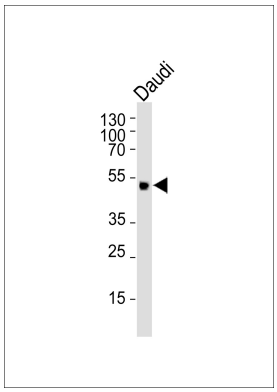
Background

NCF2, NCF1, and a membrane bound cytochrome b558 are required for activation of the latent NADPH oxidase (necessary for superoxide production).

References

Volpp B.D.,et al.Proc. Natl. Acad. Sci. U.S.A. 86:7195-7199(1989).
Volpp B.D.,et al.Proc. Natl. Acad. Sci. U.S.A. 86:9563-9563(1989).
Lomax K.J.,et al.Science 245:409-412(1989).
Rodaway A.R.F.,et al.Mol. Cell. Biol. 10:5388-5396(1990).
Gorlach A.,et al.J. Clin. Invest. 100:1907-1918(1997).

Images



Western blot analysis of lysate from Daudi cell line,using p47 phox (Ab-345) Antibody(AP50679). AP50679 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.