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p47 phox Antibody (Ab-304)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50019

Product Information

Application	WB, IF
Primary Accession	P14598
Reactivity	Human
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~~ 1:250-1:1000 IF~~1:100
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).

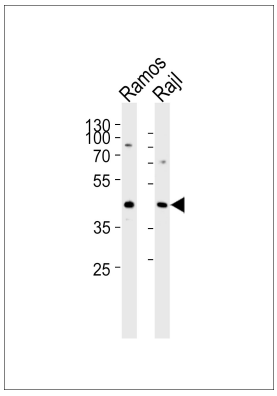
Background

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

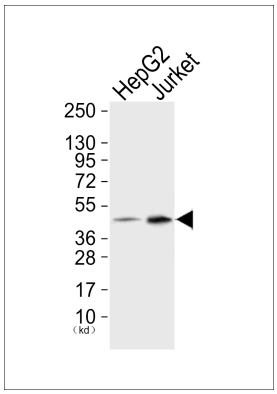
References

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).

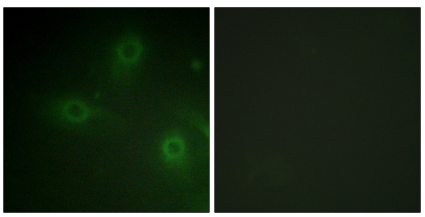
Images



Western blot analysis of lysates from Ramos,RajI cell line (from left to right),using p47 phox Antibody (Ab-304)(B1160). B1160 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysates at 35ug per lane.



Western blot analysis of extracts from HepG2 cells (Lane 1) and Jurket cells (Lane 2), using Neutrophil Cytosol Factor 1 (Ab-304) Antibody. The lane on the left is treated with synthesized peptide.



Immunofluorescence analysis of HeLa cells, using Neutrophil Cytosol Factor 1 (Ab-304) antibody.