

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 Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol. |
| Storage Conditions | -20°C |

Protein Information

| | |
|----------|---|
| Name | NCF1 (HGNC:7660) |
| Synonyms | NOXO2, SH3PXD1A |
| Function | <p>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).</p> |

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).

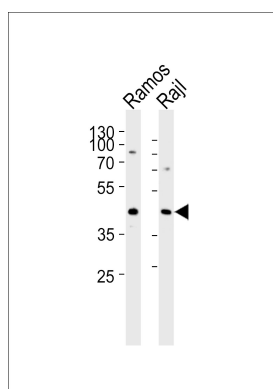
Volpp B.D.,et al.Proc. Natl. Acad. Sci. U.S.A. 86:9563-9563(1989).

Lomax K.J.,et al.Science 245:409-412(1989).

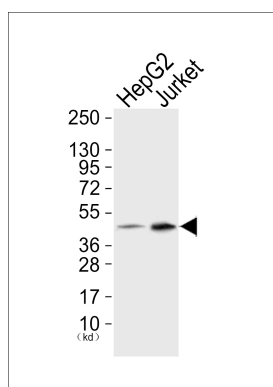
Rodaway A.R.F.,et al.Mol. Cell. Biol. 10:5388-5396(1990).

Gorlach A.,et al.J. Clin. Invest. 100:1907-1918(1997).

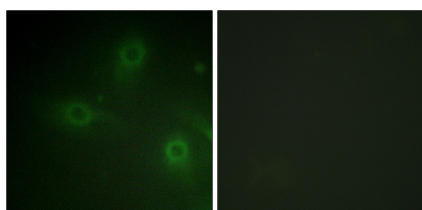
Images



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.