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NCF4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7615b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q15080
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18508
Calculated MW	39032
Antigen Region	260-289

Additional Information

Gene ID	4689
Other Names	Neutrophil cytosol factor 4, NCF-4, Neutrophil NADPH oxidase factor 4, SH3 and PX domain-containing protein 4, p40-phox, p40phox, NCF4, SH3PXD4
Target/Specificity	This NCF4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 260-289 amino acids from the C-terminal region of human NCF4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	NCF4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NCF4 (HGNC:7662)
Synonyms	SH3PXD4

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(-)) (Probable). 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 (By similarity). 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 (By similarity). This activation process is initiated by phosphorylation dependent binding of the cytosolic NCF1/p47-phox subunit to the C-terminus of CYBA/p22-phox (By similarity).
Cellular Location	Cytoplasm, cytosol. Endosome membrane; Peripheral membrane protein; Cytoplasmic side. Membrane; Peripheral membrane protein. Note=Translocates to the membrane upon activation by phorbol myristate acetate (PMA)
Tissue Location	Expression is restricted to hematopoietic cells.

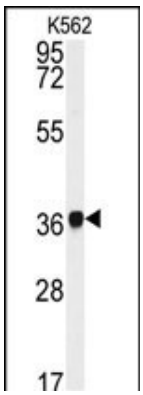
Background

NCF4 is a cytosolic regulatory component of the superoxide-producing phagocyte NADPH-oxidase, a multicomponent enzyme system important for host defense. This protein is preferentially expressed in cells of myeloid lineage. It interacts primarily with neutrophil cytosolic factor 2(NCF2/p67-phox) to form a complex with neutrophil cytosolic factor 1 (NCF1/p47-phox), which further interacts with the small G protein RAC1 and translocates to the membrane upon cell stimulation. This complex then activates flavocytochrome b, the membrane-integrated catalytic core of the enzyme system. The PX domain of this protein can bind phospholipid products of the PI(3) kinase, which suggests its role in PI(3) kinase-mediated signaling events. The phosphorylation of this protein was found to negatively regulate the enzyme activity.

References

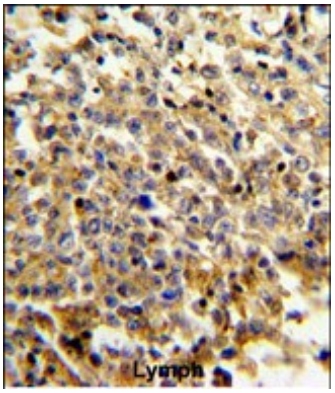
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Images

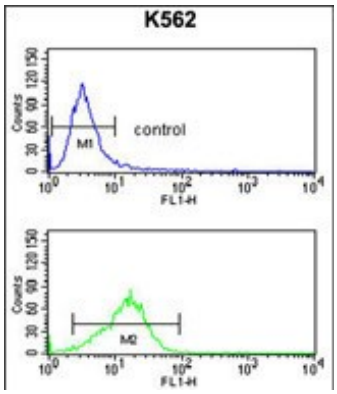


Western blot analysis of NCF4 antibody (C-term)(Cat.#AP7615b) in K562 cell line lysates (35ug/lane). NCF4 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human lymphoma reacted with NCF4 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody,



followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



NCF4 Antibody (C-term) (Cat. #AP7615b) flow cytometry analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.