

Goat Anti-NCF4 / P40PHOX Antibody
Peptide-affinity purified goat antibody
Catalog # AF1710a**Specification**

Goat Anti-NCF4 / P40PHOX Antibody - Product Information

Application	WB, IHC, E
Primary Accession	Q15080
Other Accession	NP_038202 , 4689
Reactivity	Human
Predicted	Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	39032

Goat Anti-NCF4 / P40PHOX Antibody - 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

DilutionWB~~1:1000
IHC~~1:100~500
E~~N/A**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-NCF4 / P40PHOX Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-NCF4 / P40PHOX Antibody - 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)

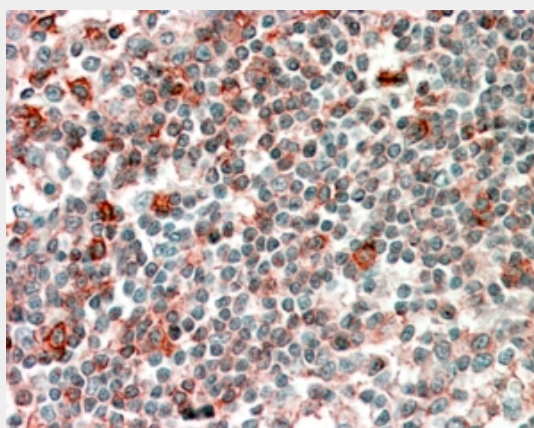
Tissue Location

Expression is restricted to hematopoietic cells.

Goat Anti-NCF4 / P40PHOX Antibody - Protocols

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

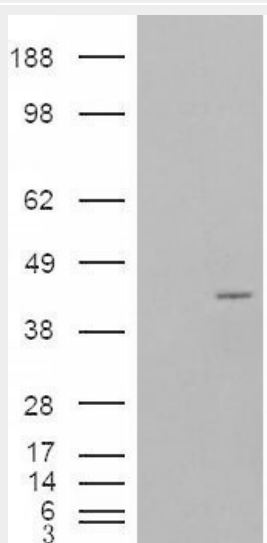
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-NCF4 / P40PHOX Antibody - Images

AF1710a (2.5 µg/ml) staining of paraffin embedded Human Tonsil. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1710a (0.5 µg/ml) staining of Daudi cell lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



HEK293 overexpressing P40PHOX (RC201191) and probed with AF1710a (mock transfection in first lane), tested by Origene.

Goat Anti-NCF4 / P40PHOX Antibody - Background

The protein encoded by this gene 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. Alternatively spliced transcript variants encoding distinct isoforms have been observed.

Goat Anti-NCF4 / P40PHOX Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

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Hematologically important mutations: the autosomal recessive forms of chronic granulomatous disease (second update). Roos D, et al. Blood Cells Mol Dis, 2010 Apr 15. PMID 20167518.

Polymorphisms in innate immunity genes and patients response to dendritic cell-based HIV immuno-treatment. Segat L, et al. Vaccine, 2010 Mar 2. PMID 20056178.