Datasheet for ABIN967919

anti-NCF1 antibody (AA 18-197)

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Overview

Quantity:	150 µg
Target:	NCF1
Binding Specificity:	AA 18-197
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This NCF1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human p47[phox] aa. 18-197
Clone:	1-p47Phox
Isotype:	IgG1
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	NCF1
Alternative Name:	p47 phox (NCF1 Products)
Background:	The neutrophil respiratory burst oxidase (NADPH-oxidase) generates superoxide and secondary oxygen-derived toxic products in response to bacteria or a variety of soluble stimuli. The enzyme is dormant in resting neutrophils. The active site of this enzyme is located in an integral membrane cytochrome, b558, which consists of the two subunits gp91[phox] and p21[phox]. Superoxide production depends on the formation of a complex that includes two cytosolic proteins, p67[phox] and p47[phox]. The GTP-binding protein Rac is also an essential component for oxidase activity. p47[phox] is a highly basic protein that contains two SH3 domains. The C-terminal quarter of the molecule contains many potential phosphorylation sites, consisting of serines and basic residues. Expression of p47[phox] is restricted to cells of phagocytic or lymphocytic lineage. IFN-gamma is a potent inducer of both p47[phox] mRNA and protein. p47[phox] is an early reactant in oxidase assembly and this assembly can be inhibited by a C-terminal peptide of the large subunit of cytochrome b558. It is thought that p47[phox] binds directly to the cytochrome, while p67[phox] associates with the cytochrome by binding p47[phox]. This antibody is routinely tested by western blot analysis.
Molecular Weight:	47 kDa
Pathways:	PI3K-Akt Signaling

Application Details

Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

Handling

Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

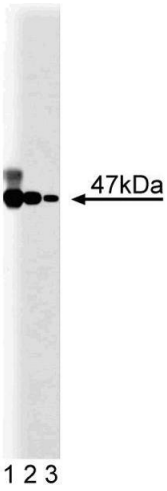
Shiose, Sumimoto: "Arachidonic acid and phosphorylation synergistically induce a conformational change of p47phox to activate the phagocyte NADPH oxidase." in: **The Journal of biological chemistry**, Vol. 275, Issue 18, pp. 13793-801, (2000) (PubMed).

Ago, Nunoi, Ito, Sumimoto: "Mechanism for phosphorylation-induced activation of the phagocyte NADPH oxidase protein p47(phox). Triple replacement of serines 303, 304, and 328 with aspartates disrupts the SH3 domain-mediated intramolecular interaction in p47(phox), thereby activating" in: **The Journal of biological chemistry**, Vol. 274, Issue 47, pp. 33644-53, (1999) (PubMed).

Hata, Ito, Takeshige, Sumimoto: "Anionic amphiphile-independent activation of the phagocyte NADPH oxidase in a cell-free system by p47phox and p67phox, both in C terminally truncated forms. Implication for regulatory Src homology 3 domain-mediated interactions." in: **The Journal of biological chemistry**, Vol. 273, Issue 7, pp. 4232-6, (1998) (PubMed).

Chanock, el Benna, Smith, Babior: "The respiratory burst oxidase." in: **The Journal of biological chemistry**, Vol. 269, Issue 40, pp. 24519-22, (1994) (PubMed).

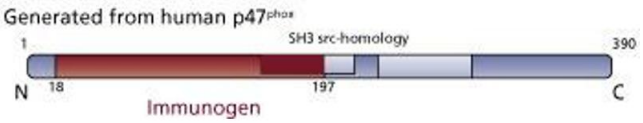
Jackson, Malech, Kozak, Lomax, Gallin, Holland: "Cloning and functional expression of the mouse homologue of p47phox." in: **Immunogenetics**, Vol. 39, Issue 4, pp. 272-5, (1994) (PubMed).

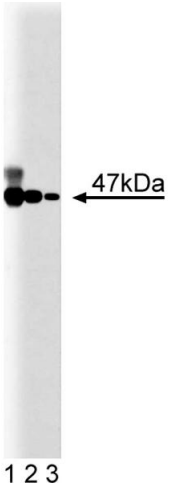


Western Blotting

Image 1. Western blot analysis of p47[phox] on EB-1 lysate. 1:500 (lane 1), 1:1000 (lane2), 1:2000 (lane 3) dilution of anti-p47[phox] antibody.

Image 2.





Western Blotting

Image 3.