

# p67-phox (H-300): sc-15342

## BACKGROUND

The hereditary disease chronic granulomatous disease (CGF) has been linked to mutations in p47-phox and p67-phox. The cytosolic proteins p47-phox and p67-phox, also designated neutrophil cytosol factor (NCF1 and NCF2, respectively), are required for activation of the superoxide-producing NADPH oxidase in neutrophils and other phagocytic cells. During activation of the NADPH oxidase, p47-phox and p67-phox migrate to the plasma membrane where they associate with cytochrome b558 and the small G protein Rac to form the functional enzyme complex. Both p47-phox and p67-phox contain two Src homology 3 (SH3) domains. The C-terminal SH3 domain of p67-phox has been shown to interact with the proline rich domain of p47-phox, suggesting that p47-phox may facilitate the transport of p67-phox to the membrane.

## CHROMOSOMAL LOCATION

Genetic locus: NCF2 (human) mapping to 1q32; Ncf2 (mouse) mapping to 1 G3.

## SOURCE

p67-phox (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 of p67-phox of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

p67-phox (H-300) is recommended for detection of p67-phox of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p67-phox (H-300) is also recommended for detection of p67-phox in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for p67-phox siRNA (h): sc-36163, p67-phox siRNA (m): sc-36164, p67-phox shRNA Plasmid (h): sc-36163-SH, p67-phox shRNA Plasmid (m): sc-36164-SH, p67-phox shRNA (h) Lentiviral Particles: sc-36163-V and p67-phox shRNA (m) Lentiviral Particles: sc-36164-V.

Molecular Weight of p67-phox: 67 kDa.

Positive Controls: p67-phox (h): 293T Lysate: sc-175244, p67-phox (m): 293T Lysate: sc-122337 or HL-60 whole cell lysate: sc-2209.

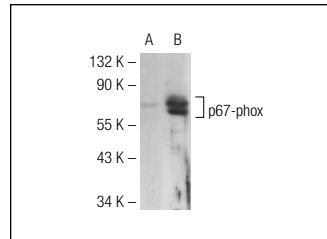
## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

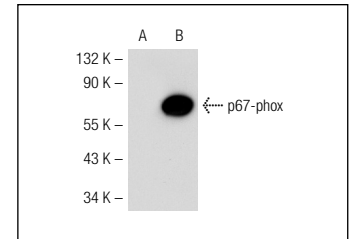
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



p67-phox (H-300): sc-15342. Western blot analysis of p67-phox expression in non-transfected: sc-117752 (A) and human p67-phox transfected: sc-175244 (B) 293T whole cell lysates.



p67-phox (H-300): sc-15342. Western blot analysis of p67-phox expression in non-transfected: sc-117752 (A) and mouse p67-phox transfected: sc-122337 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Jackson, S.H., et al. 2004. T cells express a phagocyte-type NADPH oxidase that is activated after T cell receptor stimulation. *Nat. Immunol.* 5: 818-827.
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- Ateghang, B., et al. 2006. Regulation of Cardiotrophin-1 expression in mouse embryonic stem cells by HIF-1α and intracellular reactive oxygen species. *J. Cell Sci.* 119: 1043-1052.
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- Kim, Y.M., et al. 2009. Genetic analysis of 10 unrelated Korean families with p22-phox-deficient chronic granulomatous disease: an unusually identical mutation of the CYBA gene on Jeju Island, Korea. *J. Korean Med. Sci.* 24: 1045-1050.
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- Shoeb, M., et al. 2010. Progesterone-induced reorganisation of NOX-2 components in membrane rafts is critical for sperm functioning in *Capra hircus*. *Andrologia* 42: 356-365.