

p22-phox (FL-195): sc-20781

BACKGROUND

Mox1 and the glycoprotein gp91-phox are largely related proteins that are essential components of the NADPH oxidase. The superoxide-generating NADPH oxidase is present in phagocytes, neuroepithelial bodies, vascular smooth muscle cells and endothelial cells. It includes a membrane-bound flavocytochrome containing two subunits, gp91-phox and p22-phox, and the cytosolic proteins p47-phox and p67-phox. During activation of the NADPH oxidase, p47-phox and p67-phox migrate to the plasma membrane where they associate with the flavocytochrome, cytochrome b558, to form the active enzyme complex. The p22 and gp91-phox subunits also function as surface O₂ sensors that initiate cellular signaling in response to hypoxic conditions.

CHROMOSOMAL LOCATION

Genetic locus: CYBA (human) mapping to 16q24.3; Cyba (mouse) mapping to 8 E1.

SOURCE

p22-phox (FL-195) is a rabbit polyclonal antibody raised against amino acids 1-195 representing full length p22-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.

Available as agarose conjugate for immunoprecipitation, sc-20781 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

p22-phox (FL-195) is recommended for detection of p22-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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p22-phox (FL-195) is also recommended for detection of p22-phox in additional species, including bovine.

Suitable for use as control antibody for p22-phox siRNA (h): sc-36149, p22-phox siRNA (m): sc-36150, p22-phox shRNA Plasmid (h): sc-36149-SH, p22-phox shRNA Plasmid (m): sc-36150-SH, p22-phox shRNA (h) Lentiviral Particles: sc-36149-V and p22-phox shRNA (m) Lentiviral Particles: sc-36150-V.

Molecular Weight of p22-phox: 22 kDa.

Positive Controls: THP-1 cell lysate: sc-2238 or RAW 264.7 whole cell lysate: sc-2211.

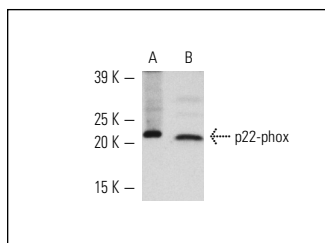
STORAGE

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

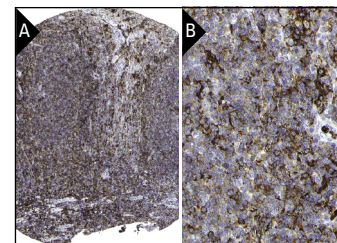
RESEARCH USE

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

DATA



p22-phox (FL-195): sc-20781. Western blot analysis of p22-phox expression in THP-1 (A) and Raw 264.7 (B) whole cell lysates.



p22-phox (FL-195): sc-20781. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of follicle and non-follicle cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

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- Chandrasekhar, A., et al. 2011. Modulation of nicotinamide adenine dinucleotide phosphate oxidase activity through sequential posttranslational modifications of p22 phagocytic oxidase during capacitation and acrosome reaction in goat spermatozoa. *J. Anim. Sci.* 89: 2995-3007.
- Corcionivoschi, N., et al. 2012. Mucosal reactive oxygen species decrease virulence by disrupting *Campylobacter jejuni* phosphotyrosine signaling. *Cell Host Microbe* 12: 47-59.
- Teng, L., et al. 2012. Divergent effects of p47(phox) phosphorylation at S303-4 or S379 on tumor necrosis factor- α signaling via TRAF4 and MAPK in endothelial cells. *Arterioscler. Thromb. Vasc. Biol.* 32: 1488-1496.
- Gutiérrez, E., et al. 2012. Oxidative stress, macrophage infiltration and CD163 expression are determinants of long-term renal outcome in macrohematuria-induced acute kidney injury of IgA nephropathy. *Nephron Clin. Pract.* 121: c42-c53.

MONOS
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Try **p22-phox (E-11): sc-271968** or **p22-phox (CS9): sc-130551**, our highly recommended monoclonal alternatives to p22-phox (FL-195). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **p22-phox (E-11): sc-271968**.