**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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

p22-phox (44.1) is a mouse monoclonal antibody raised against p22-phox of human origin, with epitope mapping to amino acids 29-33 and amino acids 182-188.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p22-phox (44.1) is available conjugated to either phycoerythrin (sc-130550 PE) or fluorescein (sc-130550 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

**APPLICATIONS**

p22-phox (44.1) 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)] and flow cytometry (1 µg per 1 x 10⁶ cells).


Molecular Weight of p22-phox: 22 kDa.

Positive Controls: THP-1 cell lysate: sc-2238.

**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.

**SELECT PRODUCT CITATIONS**


**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG kappa HRP: sc-516102 or m-IgG kappa HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

**CONJUGATES**

See **p22-phox (E-11): sc-271968** for p22-phox antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.