p22-phox (44.1): sc-130550

**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 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 (44.1) is a mouse monoclonal antibody raised against p22-phox of human origin, with epitope mapping to amino acids 29-33 and 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 agarose (sc-130550 AC), 500 µg/ml, for IP; to HRP (sc-130550 HRP), 200 µg/ml, for WB, IF/ICP and ELISA; to either phycoerythrin (sc-130550 PE), fluorescein (sc-130550 FITC), Alexa Fluor® 488 (sc-130550 AF488), Alexa Fluor® 546 (sc-130550 AF546), Alexa Fluor® 594 (sc-130550 AF594) or Alexa Fluor® 647 (sc-130550 AF647), 200 µg/ml, for WB (RGB), IF, IHC/P and FCM; and to either Alexa Fluor® 680 (sc-130550 AF680) or Alexa Fluor® 790 (sc-130550 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF 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 10^6 cells).


Molecular Weight of p22-phox: 22 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, THP-1 cell lysate: sc-2238 or human spleen extract: sc-363779.

**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 (44.1) Alexa Fluor® 680: sc-130550 AF680. Direct near-infrared western blot analysis of p22-phox expression in HL-60 (A) and THP-1 (B) whole cell lysates and human spleen tissue extract (C). Blocked with UltraCruz Blocking Reagent: sc-512214.

**SELECT PRODUCT CITATIONS**

