

NOXA1 (H-6): sc-398873

BACKGROUND

NOXA1 (NADPH oxidase activator 1), also known as p51NOX, NY-CO-31 or SDCCAG31, is a widely expressed 476 amino acid cytoplasmic protein belonging to the NCF2/NOXA1 family. NOXA1 functions as an activator of Mox1, a superoxide-producing NADPH oxidase, which is present in phagocytes, neuroepithelial bodies, vascular smooth muscle cells and endothelial cells. During activation of the Mox1, p47 phox and p67 phox migrate to the plasma membrane where they associate with cytochrome b558 to form an active enzyme complex. NOXA1 may be involved in the production of reactive oxygen species (ROS). ROS participates in a variety of biological processes including host defense, hormone biosynthesis, oxygen sensing and signal transduction. Expressed as three isoforms produced by alternative splicing events, it is suggested that NOXA1 may also activates gp91phox and Nox3.

CHROMOSOMAL LOCATION

Genetic locus: NOXA1 (human) mapping to 9q34.3; Noxa1 (mouse) mapping to 2 A3.

SOURCE

NOXA1 (H-6) is a mouse monoclonal antibody raised against amino acids 1-200 mapping at the N-terminus of NOXA1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NOXA1 (H-6) is available conjugated to agarose (sc-398873 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398873 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398873 PE), fluorescein (sc-398873 FITC), Alexa Fluor® 488 (sc-398873 AF488), Alexa Fluor® 546 (sc-398873 AF546), Alexa Fluor® 594 (sc-398873 AF594) or Alexa Fluor® 647 (sc-398873 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398873 AF680) or Alexa Fluor® 790 (sc-398873 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

NOXA1 (H-6) is recommended for detection of NOXA1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for NOXA1 siRNA (h): sc-92533, NOXA1 siRNA (m): sc-150038, NOXA1 shRNA Plasmid (h): sc-92533-SH, NOXA1 shRNA Plasmid (m): sc-150038-SH, NOXA1 shRNA (h) Lentiviral Particles: sc-92533-V and NOXA1 shRNA (m) Lentiviral Particles: sc-150038-V.

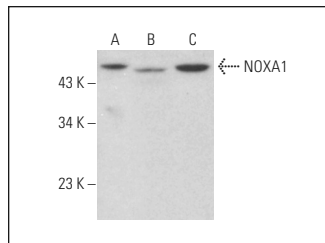
Molecular Weight of NOXA1: 51 kDa.

Positive Controls: NOXA1 (h): 293T Lysate: sc-112012, Jurkat whole cell lysate: sc-2204 or PC-12 cell lysate: sc-2250.

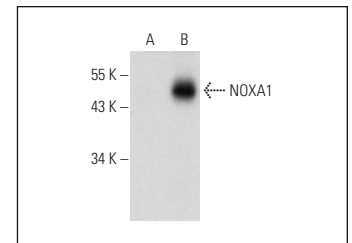
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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). 3) Immunofluorescence: use m-IgGκ BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NOXA1 (H-6): sc-398873. Western blot analysis of NOXA1 expression in Jurkat (A), PC-12 (B) and BC₃H1 (C) whole cell lysates.



NOXA1 (H-6): sc-398873. Western blot analysis of NOXA1 expression in non-transfected: sc-117752 (A) and human NOXA1 transfected: sc-112012 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Sun, H., et al. 2016. MicroRNA-21 expression is associated with the clinical features of patients with gastric carcinoma and affects the proliferation, invasion and migration of gastric cancer cells by regulating Noxa. *Mol. Med. Rep.* 13: 2701-2707.
- Diebold, B.A., et al. 2019. Guidelines for the detection of NADPH oxidases by immunoblot and RT-qPCR. *Methods Mol. Biol.* 1982: 191-229.
- Sevilla-Montero, J., et al. 2022. Cigarette smoke induces pulmonary arterial dysfunction through an imbalance in the redox status of the soluble guanylyl cyclase. *Free Radic. Biol. Med.* 193: 9-22.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.