

NOXO1 (Q-12): sc-79268

BACKGROUND

NADPH oxidase (NOX) proteins include a membrane-bound flavocytochrome containing two subunits (gp91^{phox} and p22^{phox}) and the cytosolic proteins p47^{phox} and p67^{phox}. NOX activation leads to the formation of a complex that catalyzes the transfer of electrons from NADPH to molecular oxygen, therefore generating reactive oxygen species (ROS). NOXO1 (NADPH oxidase organizer 1), also designated SH3 and PX domain-containing protein 5 and Nox-organizing protein 1, is a 376 amino acid protein that targets NOX to different subcellular compartments and also targets NOX activators to NOX. Interestingly, NOXO1 is required for the synthesis of otoliths, crystalline structures of the inner ear that are involved in the perception of gravity. There are four isoforms of NOXO1 that are produced as a result of alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: NOXO1 (human) mapping to 16p13.3; Noxo1 (mouse) mapping to 17 A3.3.

SOURCE

NOXO1 (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NOXO1 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.

Blocking peptide available for competition studies, sc-79268 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NOXO1 (Q-12) is recommended for detection of NOXO1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

NOXO1 (Q-12) is also recommended for detection of NOXO1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NOXO1 siRNA (h): sc-75949, NOXO1 siRNA (m): sc-75950, NOXO1 shRNA Plasmid (h): sc-75949-SH, NOXO1 shRNA Plasmid (m): sc-75950-SH, NOXO1 shRNA (h) Lentiviral Particles: sc-75949-V and NOXO1 shRNA (m) Lentiviral Particles: sc-75950-V.

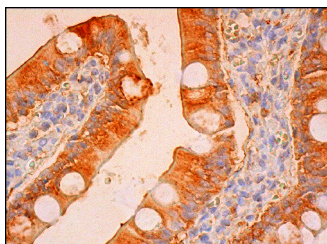
Molecular Weight of human NOXO1 isoforms $\gamma/\delta/\beta/\alpha$: 41 kDa.

Molecular Weight of mouse NOXO1 isoforms 1/2: 39/27 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



NOXO1 (Q-12): sc-79268. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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

PROTOCOLS

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

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Try **NOXO1 (F-5): sc-390927**, our highly recommended monoclonal alternative to NOXO1 (Q-12).