

Nix (C-15): sc-5863

BACKGROUND

The adenovirus E1B protein is a viral homolog of the Bcl-2 family of proteins that are involved in regulating cell death. A family of interacting proteins, which are designated Nip or Bnip and include Nip1, Nip2, Nip3 and Nix, associate with both the E1B protein and Bcl-2 proteins to mediate apoptotic signaling. Nip1 contains a hydrophobic transmembrane domain that enables its localization to the nuclear envelope, endoplasmic reticulum and mitochondria. Nip2 shares homology with the non-catalytic domain of Cdc42 GTPase-activating protein (Cdc42GAP). Through binding to Cdc42GAP, Nip2 enhances the GTPase activity of Cdc42GAP, facilitating the hydrolysis of GTP bound to Cdc42x and thereby mediating the signaling pathways involving receptor kinases, small GTPases and apoptotic proteins. Nix, which is also designated Nip3L or BNIP3L, is highly related to Nip3 and both proteins localize to the mitochondria where they associate with Bcl-2 proteins. Nip3 preferentially binds to Bcl-X_L and induces apoptosis by suppressing the anti-apoptosis activity of Bcl-X_L.

REFERENCES

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- Subramanian, T., et al. 1995. Functional substitution identifies a cell survival promoting domain common to Adenovirus E1B 19 kDa and Bcl-2 proteins. *Oncogene* 11: 2403-2409.
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- Low, B.C., et al. 1999. Tyrosine phosphorylation of the Bcl-2-associated protein BNIP-2 by fibroblast growth factor receptor-1 prevents its binding to Cdc42GAP and Cdc42. *J. Biol. Chem.* 274: 33123-33130.

CHROMOSOMAL LOCATION

Genetic locus: BNIP3L (human) mapping to 8p21.2; Bnip3l (mouse) mapping to 14 D1.

SOURCE

Nix (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Nix 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-5863 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nix (C-15) is recommended for detection of Nix 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Nix (C-15) is also recommended for detection of Nix in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Nix siRNA (h): sc-37453, Nix siRNA (m): sc-37454, Nix shRNA Plasmid (h): sc-37453-SH, Nix shRNA Plasmid (m): sc-37454-SH, Nix shRNA (h) Lentiviral Particles: sc-37453-V and Nix shRNA (m) Lentiviral Particles: sc-37454-V.

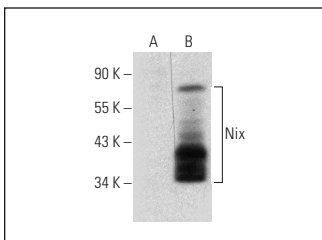
Molecular Weight of Nix homodimer: 48 kDa.

Molecular Weight of Nix monomer: 24 kDa.

Molecular Weight of Nix C-terminal fragment: 11 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Nix (h): 293T Lysate: sc-113558.

DATA



Nix (C-15): sc-5863. Western blot analysis of Nix expression in non-transfected: sc-117752 (A) and human Nix transfected: sc-113558 (B) 293T whole cell lysates.

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.

MONOS
Satisfaction
Guaranteed

Try **Nix (H-8): sc-166332** or **Nix (E-1): sc-166314**, our highly recommended monoclonal alternatives to Nix (C-15).