

Product Information

Anti-Nix

produced in rabbit, affinity isolated antibody

Catalog Number **N0399**

Product Description

Anti-Nix (Bnip3L, Bnip3 α) is produced in rabbit using as immunogen a peptide corresponding to amino acids 77-92 of an internal domain of human Nix.¹ This peptide is identical in mouse.

Anti-Nix specifically recognizes human Nix by immunoblotting (~38 kDa) using a K562 cell lysate.

Members in the Bcl-2 family are critical regulators of apoptosis by either inhibiting or promoting cell death. Bcl-2 homology 3 (BH3) domain is a potent death domain. BH3 domain containing pro-apoptotic proteins, including Bad, Bax, Bid, Bik, Hrk, Nip3, and Bim, form a growing subclass of the Bcl-2 family. A novel BH3 domain containing protein was recently identified and designated Bnip3L (BCL2/adenovirus E1B 19 kDa-interacting protein 3-like), Bnip3 α , and Nix (for Nip3-like protein X).¹⁻³ Bnip3L and Bnip3 form a new subfamily of the pro-apoptotic mitochondrial proteins. Bnip3L/ Bnip3 α / Nix is a homolog of the E1B 19K/Bcl-2 binding and pro-apoptotic protein Bnip3. Overexpression of Bnip3L induces apoptosis.^{2,3} Bnip3L interacts with and overcomes suppression by Bcl-2 and Bcl-xL. Bnip3L is localized in mitochondria and the messenger RNA of Bnip3L is ubiquitously expressed in human tissues.^{1,2}

Reagent

Supplied at ~1.0 mg/mL in phosphate buffered saline, containing 0.02% sodium azide.

Storage/Stability

Antibody can be stored at 2-8 °C for three months and at -20 °C for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Product Profile

Immunoblotting: the recommended working antibody concentration is 0.5-1 μ g/mL using a K562 cell lysate. A band of ~38 kDa represents the monomer of Nix. A second band of lower molecular weight (~37 kDa) is also detected. Both bands can be blocked by the immunizing peptide.

Note: In order to obtain the best results in various techniques and preparations, we recommend determining optimal working concentration by titration.

References

1. Matsushima, M., et al., Isolation, mapping, and functional analysis of a novel human cDNA (BNIP3L) encoding a protein homologous to human NIP3. *Genes Chromosomes Cancer*, **21**, 230-235 (1998).
2. Yasuda, M., et al., BNIP3alpha: a human homolog of mitochondrial proapoptotic protein BNIP3. *Cancer Res.*, **59**, 533-537 (1999).
3. Chen, G., et al., Nix and Nip3 form a subfamily of pro-apoptotic mitochondrial proteins. *J. Biol. Chem.*, **274**, 7-10 (1999).
4. Imazu, T., et al., Bcl-2/E1B 19 kDa-interacting protein 3-like protein (Bnip3L) interacts with bcl-2/Bcl-xL and induces apoptosis by altering mitochondrial membrane permeability. *Oncogene*, **18**, 4523-4529 (1999).

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