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BNIP-3 (m): 293T Lysate: sc-127225

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 BNIP-1, BNIP-2, BNIP-3 and Nix, associate with both the E1B protein and Bcl-2 proteins to mediate apoptotic signaling. BNIP-1 contains a hydrophobic transmembrane domain, which enables its localization to the nuclear envelope, endoplasmic reticulum and mitochondria. BNIP-2, (previously designated Nip2 and Nip21 in human and mouse respectively), shares homology with the non-catalytic domain of Cdc42 GTPase-activating protein (Cdc42GAP). Through binding to Cdc42GAP, BNIP-2 enhances the GTPase activity of Cdc42GAP, facilitating the hydrolysis of GTP bound to Cdc42 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 BNIP-3, and both proteins localize to the mitochondria where they associate with Bcl-2 proteins. BNIP-3 preferentially binds to Bcl-x_L and induces apoptosis by suppressing the anti-apoptosis activity of Bcl-x_L.

REFERENCES

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5. Zhang, H., Heim, J. and Meyhack, B. 1999. Novel BNIP1 variants and their interaction with BCL2 family members. *FEBS Lett.* 448: 23-27.
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CHROMOSOMAL LOCATION

Genetic locus: Bnip3 (mouse) mapping to 7 F4.

PRODUCT

BNIP-3 (m): 293T Lysate represents a lysate of mouse BNIP-3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

BNIP-3 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive BNIP-3 antibodies. Recommended use: 10-20 µl per lane.

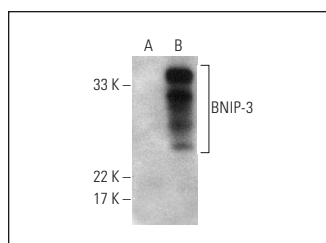
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

BNIP-3 (ANa40): sc-56167 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse BNIP-3 expression in BNIP-3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

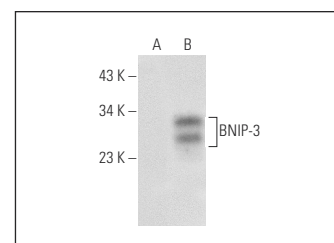
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (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.

DATA



BNIP-3 (ANa40) HRP: sc-56167 HRP. Direct western blot analysis of BNIP-3 expression in non-transfected: sc-117752 (A) and mouse BNIP-3 transfected: sc-127225 (B) 293T whole cell lysates.



BNIP-3 (ANa40): sc-56167. Western blot analysis of BNIP-3 expression in non-transfected: sc-117752 (A) and mouse BNIP-3 transfected: sc-127225 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.