

Anti-BNIP3 Antibody Picoband™

Catalog Number: A01469

About BNIP3

The Bcl-2 nineteen kilodalton interacting protein 3 (BNIP3 or NIP3), is a hypoxia-inducible proapoptotic member of the Bcl-2 family that induces cell death by associating with the mitochondria. BNIP3, expressed in skeletal muscle and in the brain at low levels, is primarily localized to the nucleus of glial cells of the normal human brain, as well as in the malignant glioma cell line U251. BNIP3 expression in the cytoplasm increases and localizes with the mitochondria, contributing to induction of cell death. Cellular protein BNIP3 interacts with E1B-19K, BCL-2, BCL-xL, and EBV-BHRF1. BNIP3 contains Bcl-2 homology 3 (BH3) domain and COOH-terminal transmembrane (TM) domain. The BH3 domain of BNIP3 mediates Bcl-2/Bcl-X (L) heterodimerization and confers pro-apoptotic activity; whereas the TM domain is critical for homodimerization, pro-apoptotic function, and mitochondrial targeting.

Overview

Product Name	Anti-BNIP3 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-BNIP3 Antibody Picoband™ catalog # A01469. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q12983

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human BNIP3, identical to the related mouse and rat sequences.
Predicted Reactive Species	Human
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml</p>

Anti-BNIP3 Antibody Picoband™ (A01469) Images

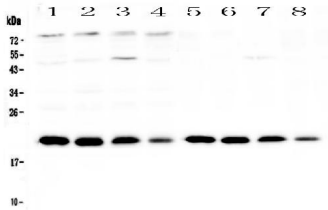


Figure 1. Western blot analysis of BNIP3 using anti-BNIP3 antibody (A01469).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,
Lane 2: rat kidney tissue lysates,
Lane 3: rat heart tissue lysates,
Lane 4: rat testis tissue lysates,
Lane 5: mouse brain tissue lysates,
Lane 6: mouse kidney tissue lysates,
Lane 7: mouse heart tissue lysates,
Lane 8: mouse testis tissue lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BNIP3 antigen affinity purified polyclonal antibody (Catalog # A01469) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for BNIP3 at approximately 21KD. The expected band size for BNIP3 is at 21KD.

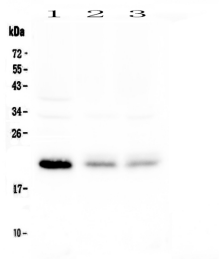


Figure 2. Western blot analysis of BNIP3 using anti-BNIP3 antibody (A01469).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human A375 whole cell lysates,
Lane 3: human A549 whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BNIP3 antigen affinity purified polyclonal antibody (Catalog # A01469) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for BNIP3 at approximately 21KD. The expected band size for BNIP3 is at 21KD.

2 Publications Citing This Product

mice. Life Sci. 2021 Mar 11:119340.doi:10.1016/j.lfs.2021.119340.Epub ahead of print.PMID:33716067.

2. PubMed ID: 28977881, Du Y, Li J, Xu T, Zhou DD, Zhang L, Wang X. Oncotarget. 2017 Jun 22;8(37):61510-61527. doi: 10.18632/oncotarget.18604. eCollection 2017 Sep 22. MicroRNA-145 induces apoptosis of glioma cells by targeting BNIP3 and Notch signaling

Visit bosterbio.com/anti-bnip3-picoband-trade-antibody-a01469-boster.html to see all 2 publications.

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