

## Rabbit BNIP3 Polyclonal Antibody | anti-BNIP3 antibody

Anti-BNIP3 Picoband antibody

| CATALOG # | HOST   | REACTIVITY                                                    | APPLICATIONS |
|-----------|--------|---------------------------------------------------------------|--------------|
| AAA124648 | Rabbit | Human, Mouse, Rat<br>No cross reactivity with other proteins. | Western Blot |

### PRODUCT SYNONYMS

BNIP3; Polyclonal Antibody; Anti-BNIP3 Picoband antibody; BCL2/adenovirus E1B 19 kDa protein-interacting protein 3; NIP3; anti-BNIP3 antibody

### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                                                           |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                                                                                                                    |
| Reactivity                                      | Human, Mouse, Rat<br>No cross reactivity with other proteins.                                                                                                                                                                                                             |
| Clonality                                       | Polyclonal                                                                                                                                                                                                                                                                |
| Form/Format                                     | Lyophilized                                                                                                                                                                                                                                                               |
| Sequence Length                                 | 259                                                                                                                                                                                                                                                                       |
| Applicable Applications for anti-BNIP3 antibody | WB (Western Blot)                                                                                                                                                                                                                                                         |
| Immunogen                                       | A synthetic peptide corresponding to a sequence of human BNIP3 (KEFLFKHPKRTATLSMRNTSVMKK).                                                                                                                                                                                |
| Subcellular Localization                        | Mitochondrion. Mitochondrion outer membrane; Coexpression with the E1B 19- kDa protein results in a shift in NIP3 localization pattern to the nuclear envelope. Colocalizes with ACAA2 in the mitochondria. Colocalizes with SPATA18 at the mitochondrion outer membrane. |
| Reconstitution                                  | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                                                                                                                                                                                      |
| Contents                                        | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.                                                                                                                                                                                                 |
| Preparation and Storage                         | Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.                                                                |



WB (Western Blot)

Figure 2. Western blot analysis of BNIP3 using anti-BNIP3 antibody (AAA124648). 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 at 0.5ug/mL overnight at 4 degree 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 with Tanon 5200 system. A specific band was detected for BNIP3 at approximately 21KD. The expected band size for BNIP3 is at 21KD.



WB (Western Blot)

Figure 1. Western blot analysis of BNIP3 using anti-BNIP3 antibody (AAA124648). 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 at 0.5ug/mL overnight at 4 degree 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 with Tanon 5200 system. A specific band was detected for BNIP3 at approximately 21KD. The expected band size for BNIP3 is at 21KD.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-BNIP3 antibody | <p>Description: 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. Protein Function: Apoptosis-inducing protein that can overcome BCL2 suppression. May play a role in repartitioning calcium between the two major intracellular calcium stores in association with BCL2. Involved in mitochondrial quality control via its interaction with SPATA18/MIEAP: in response to mitochondrial damage, participates in mitochondrial protein catabolic process (also named MALM) leading to the degradation of damaged proteins inside mitochondria. The physical interaction of SPATA18/MIEAP, BNIP3 and BNIP3L/NIX at the mitochondrial outer membrane regulates the opening of a pore in the mitochondrial double membrane in order to mediate the translocation of lysosomal proteins from the cytoplasm to the mitochondrial matrix. Plays an important role in the calprotectin (S100A8/A9)-induced cell death pathway.</p> |
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NCBI AND UNIPROT INFORMATION

|                           |                                                          |
|---------------------------|----------------------------------------------------------|
| NCBI GI #                 | 734703979                                                |
| NCBI GeneID               | 664                                                      |
| NCBI Accession #          | NP_004043.3                                              |
| NCBI GenBank Nucleotide # | NM_004052.3                                              |
| UniProt Accession #       | Q12983; O14620; Q96GP0                                   |
| Molecular Weight          | 27,832 Da                                                |
| NCBI Official Full Name   | BCL2/adenovirus E1B 19 kDa protein-interacting protein 3 |

|                                  |                                                          |
|----------------------------------|----------------------------------------------------------|
| NCBI Official Synonym Full Names | BCL2 interacting protein 3                               |
| NCBI Official Symbol             | BNIP3                                                    |
| NCBI Official Synonym Symbols    | NIP3                                                     |
| NCBI Protein Information         | BCL2/adenovirus E1B 19 kDa protein-interacting protein 3 |
| UniProt Protein Name             | BCL2/adenovirus E1B 19 kDa protein-interacting protein 3 |
| UniProt Gene Name                | <b>BNIP3</b>                                             |
| UniProt Synonym Gene Names       | NIP3                                                     |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/bnip3-antibody-western-blot-elisa/124648>