

# **Human BNIP3 Antibody**

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF4147

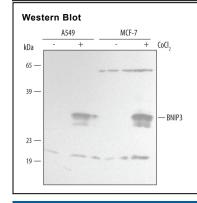
DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human BNIP3 in Western blots. In Western blots, this antibody shows no cross-reactivity with recombinant human BNIP3L.	
Source	Polyclonal Goat IgG	
Purification	Antigen Affinity-purified	
Immunogen	E. coli-derived recombinant human BNIP3 Ser2-Glu160 Accession # Q12983	
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.	

#### APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below

#### DATA



Detection of Human BNIP3 by Western Blot. Western Blot shows lysates of A549 human lung carcinoma cell line and MCF-7 human breast cancer cell line untreated (-) or treated (+) with 150 µM CoCl<sub>2</sub> for 16 hours. PVDF membrane was probed with 1 µg/mL of Human BNIP3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4147), followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for BNIP3 at approximately 30 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

## PREPARATION AND STORAGE

Reconstitution Reconstitute at 0.2 mg/mL in sterile PBS

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

\*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

### Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

### BACKGROUND

Bcl-2/adenovirus E1B 19 kDa protein-interacting protein 3 (BNIP3), also known as 19 kDa interacting protein 3 (NIP3), is a proapoptotic member of Bcl-2 protein family. BNIP3 is a 194 amino acid, 21.5 kDa (predicted) protein that contains a single Bcl-2 homology 3 (BH3) domain and a C-terminal transmembrane domain required for mitochondrial localization, homodimerization, and regulation of its proapoptotic function. BNIP3 was identified as one of several proteins that interact with discrete domains of Bcl-2 and the E1B 19 kDa protein. Under conditions of prolonged oxygen deprivation, the hypoxia-induced protein HIF1-alpha activates expression of BNIP3, which in turn, promotes apoptosis under these conditions. The mechanism of BNIP3-mediated apoptosis is independent of caspase activation and cytochrome c release and is characterized by early plasma membrane and mitochondrial damage, prior to the appearance of chromatin condensation or DNA fragmentation. Human BNIP3 shares 90% amino acid identity with mouse and rat BNIP3. Human BNIP3 shares 56% amino acid sequence identity with human BNIP3L.

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