Human BNIP3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF4147

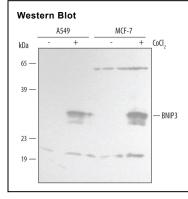
DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human BNIP3 in Western blots. In Western blots, this antibody shows no cross-reactivity with recombinant human BNIP3L.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	E. coli-derived recombinant human BNIP3 Ser2-Glu160 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 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 μ M CoCl $_2$ for 16 hours. PVDF membrane was probed with 1 μ g/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

BcI-2/adenovirus E1B 19 kDa protein-interacting protein 3 (BNIP3), also known as 19 kDa interacting protein 3 (NIP3), is a proapoptotic member of BcI-2 protein family. BNIP3 is a 194 amino acid, 21.5 kDa (predicted) protein that contains a single BcI-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 BcI-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.

