

Datasheet for ABIN388117  
**anti-BNIP3 antibody (AA 215-252)**

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## Overview

Quantity:	400 µL
Target:	BNIP3
Binding Specificity:	AA 215-252
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This BNIP3 antibody is un-conjugated
Application:	Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

## Product Details

Immunogen:	This BNIP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 215-252 amino acids from human BNIP3.
Clone:	RB3385
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

## Target Details

Target:	BNIP3
Alternative Name:	BNIP3 (NIP3) ( <a href="#">BNIP3 Products</a> )

## Target Details

Background:	NIP3 is a member of the BCL2/adenovirus E1B 19 kd-interacting protein (BNIP) family. It interacts with the E1B 19 kDa protein which is responsible for the protection of virally-induced cell death, as well as E1B 19 kDa-like sequences of BCL2, also an apoptotic protector. NIP3 contains a BH3 domain and a transmembrane domain, which have been associated with pro-apoptotic function. The dimeric mitochondrial protein is known to induce apoptosis, even in the presence of BCL2.
Molecular Weight:	27832
Gene ID:	664
NCBI Accession:	<a href="#">NP_004043</a>
UniProt:	<a href="#">Q12983</a>
Pathways:	<a href="#">Autophagy</a> , <a href="#">Brown Fat Cell Differentiation</a>

## Application Details

Application Notes:	IF: 1:500. IF: 1:50~100. IHC-P: 1:50~100
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid freeze-thaw cycles.
Storage:	4 °C, -20 °C
Storage Comment:	Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots.
Expiry Date:	6 months

## Publications

Product cited in:	Schwab, Sison, Meade, Broniowska, Corbett, Ebert: "Decreased Sirtuin Deacetylase Activity in
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LRRK2 G2019S iPSC-Derived Dopaminergic Neurons." in: **Stem cell reports**, Vol. 9, Issue 6, pp. 1839-1852, (2018) ([PubMed](#)).

Takumida, Takumida, Katagiri, Anniko: "Localization of sirtuins (SIRT1-7) in the aged mouse inner ear." in: **Acta oto-laryngologica**, pp. 1-12, (2015) ([PubMed](#)).

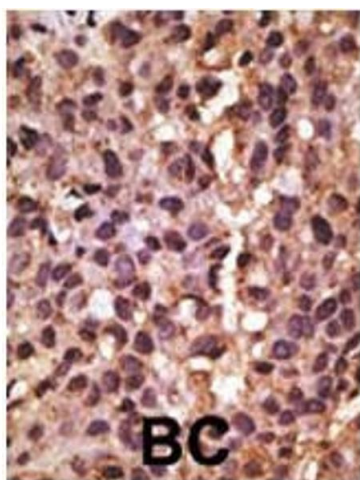
He, Hu, Shi, Weidert, Lu, Xu, Huang, Kelley, Xie: "Activation of the aryl hydrocarbon receptor sensitizes mice to nonalcoholic steatohepatitis by deactivating mitochondrial sirtuin deacetylase Sirt3." in: **Molecular and cellular biology**, Vol. 33, Issue 10, pp. 2047-55, (2013) ([PubMed](#)).

Kamarajan, Alhazzazi, Danciu, Dsilva, Verdin, Kapila: "Receptor-interacting protein (RIP) and Sirtuin-3 (SIRT3) are on opposite sides of anoikis and tumorigenesis." in: **Cancer**, Vol. 118, Issue 23, pp. 5800-10, (2012) ([PubMed](#)).

Parker, Vazquez-Manrique, Tourette, Farina, Offner, Mukhopadhyay, Orfila, Darbois, Menet, Tissenbaum, Neri: "Integration of  $\beta$ -catenin, sirtuin, and FOXO signaling protects from mutant huntingtin toxicity." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 32, Issue 36, pp. 12630-40, (2012) ([PubMed](#)).

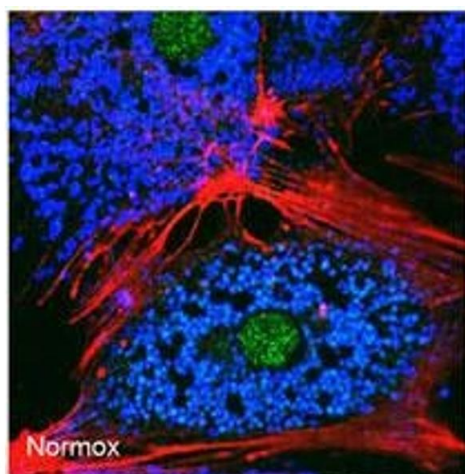
## Images

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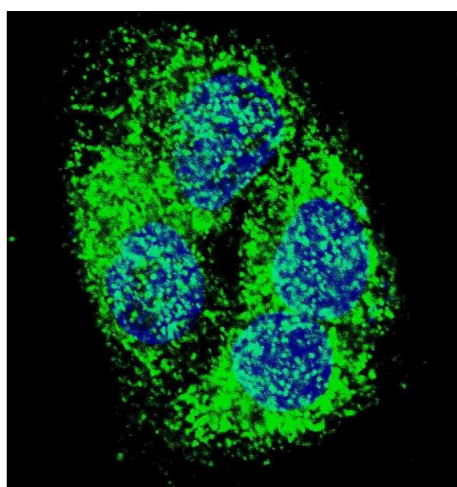
### Immunohistochemistry (Paraffin-embedded Sections)

**Image 1.** Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry, clinical relevance has not been evaluated. BC = breast carcinoma, HC = hepatocarcinoma.



#### Immunofluorescence

**Image 2.** Freshly isolated mouse hepatocytes plated on coverslips (2 x10<sup>5</sup> cells/22-mm glass coverslip) were cultured under normoxic conditions for 6 hr. The cells were then fixed in 2 % paraformaldehyde in PBS for 1 hr, and processed for confocal immunofluorescence (red: F-actin, blue: ATP-synthase, green: BNIP3). Fluorescence labeling of BNIP3 accomplished with anti-BNIP3 antibody Cat (ABIN388117 and ABIN2846280). Data courtesy of Ruben Zamora, University of Pittsburgh.



#### Immunofluorescence

**Image 3.** Fluorescent confocal image of HepG2 cells stained with BNIP3 (BH3 Domain Specific) antibody. HepG2 cells were fixed with 4 % PFA (20 min), permeabilized with Triton X-100 (0.2 %, 30 min). Cells were then incubated with (ABIN388117 and ABIN2846280) BNIP3 (BH3 Domain Specific) primary antibody (1:500, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/mL, 5 min). BNIP3 immunoreactivity is localized to the cytoplasm of HepG2 cells.