abcam

Product datasheet

Anti-BNIP3 antibody [EPR4034] ab109362

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-BNIP3 antibody [EPR4034]
Description	Rabbit monoclonal [EPR4034] to BNIP3
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat cells, Jurkat cells treated with etoposide, SH-SY5Y cells, SH-SY5Y cells treated with camptothecin and MCF-7 cells treated with Cocl2 lysates and rat kidney, mouse spleen and mouse kidney tissue lysates. IHC-P: Human renal adenocarcinoma and kidney tissues. ICC/IF: HeLa and SH-SY5Y cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4034

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab109362 in the following tested applications.

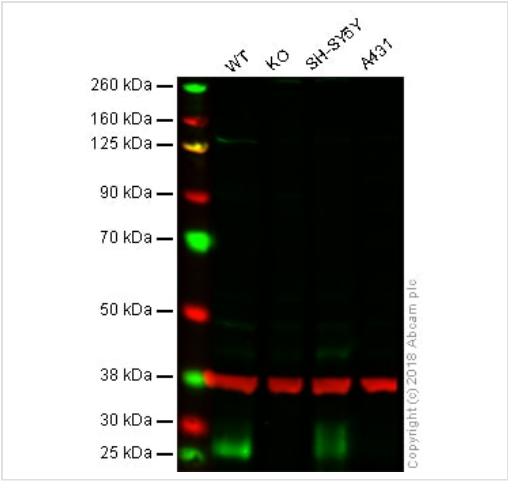
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ **(3)**	1/1000. Detects a band of approximately 30 kDa (predicted molecular weight: 22 kDa). **For unpurified use at 1/1000 - 1/10000.**
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. (Heat to 98°C, allow to cool for 10-20 minutes). **For unpurified use at 1/50 - 1/100.** **ab172730** - Rabbit monoclonal IgG, is suitable for use as an
ICC/IF		1/150. **For unpurified use at 1/100 - 1/250.**

Target

Function	Apoptosis-inducing protein that, which can overcome BCL2 suppression. May play a role in repartitioning calcium between the two major intracellular calcium stores in association with BCL2.
Sequence similarities	Belongs to the NIP3 family.
Cellular localization	Mitochondrion. Mitochondrion membrane. Coexpression with the EIB 19-kDa protein results in a shift in NIP3 localization pattern to the nuclear envelope. Colocalizes with ACAA2 in the mitochondria.

Images

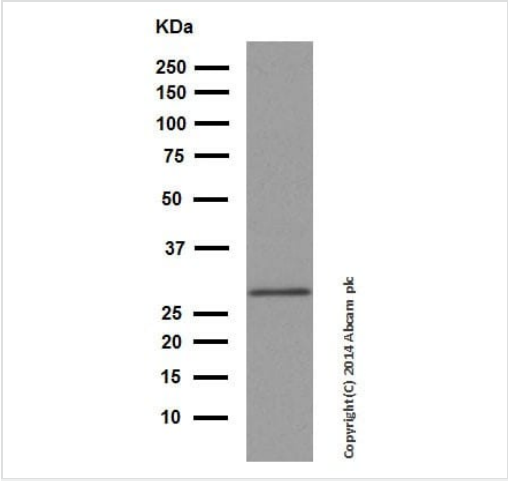


Western blot - Anti-BNIP3 antibody [EPR4034] (ab109362)

Lane 1: Wild-type HAP1 whole cell lysate (40 µg)
Lane 2: BNIP3 knockout HAP1 whole cell lysate (40 µg)
Lane 3: SHSY5Y whole cell lysate (40 µg)
Lane 4: A431 whole cell lysate (40 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab109362 observed at 25 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab109362 was shown to recognize BNIP3 in wild-type HAP1 cells as signal was lost at the expected MW in BNIP3 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and BNIP3 knockout samples were subjected to SDS-PAGE. ab109362 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



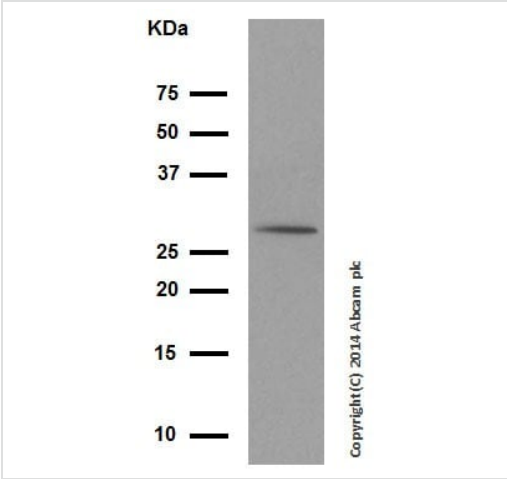
Western blot - Anti-BNIP3 antibody [EPR4034] (ab109362)

Anti-BNIP3 antibody [EPR4034] (ab109362) at 1/1000 dilution (purified) + SH-SY5Y cell lysate at 20 µg

Secondary
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 22 kDa
Observed band size: 30 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-BNIP3 antibody [EPR4034] (ab109362)

Anti-BNIP3 antibody [EPR4034] (ab109362) at 1/2000 dilution (purified) + Jurkat cell lysate at 10 µg

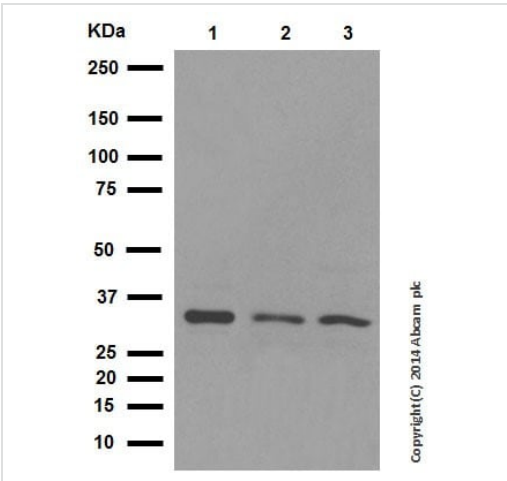
Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 22 kDa

Observed band size: 30 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-BNIP3 antibody [EPR4034] (ab109362)

All lanes : Anti-BNIP3 antibody [EPR4034] (ab109362) at 1/2000 dilution (purified)

Lane 1 : Rat kidney tissue lysate

Lane 2 : Mouse kidney tissue lysate

Lane 3 : Mouse spleen tissue lysate

Lysates/proteins at 20 µg per lane.

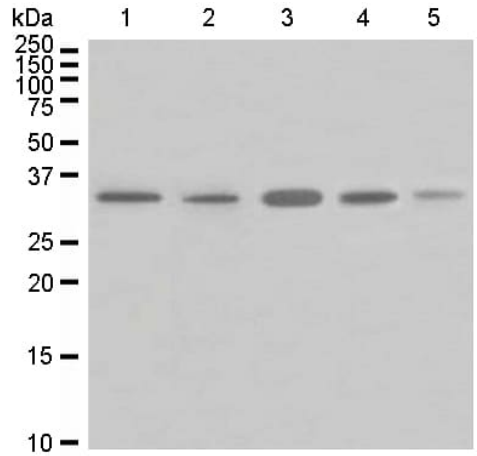
Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 22 kDa

Observed band size: 30 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



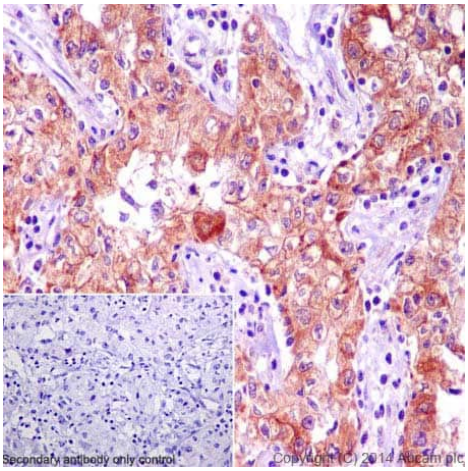
Western blot - Anti-BNIP3 antibody [EPR4034] (ab109362)

All lanes : Anti-BNIP3 antibody [EPR4034] (ab109362) at 1/1000 dilution (unpurified)

Lane 1 : Jurkat cell lysate treated with etoposide
Lane 2 : Jurkat cell lysate
Lane 3 : SH-SY5Y cell lysate treated with camptothecin
Lane 4 : SH-SY5Y cell lysate
Lane 5 : MCF-7 cell lysate treated with Cocl2

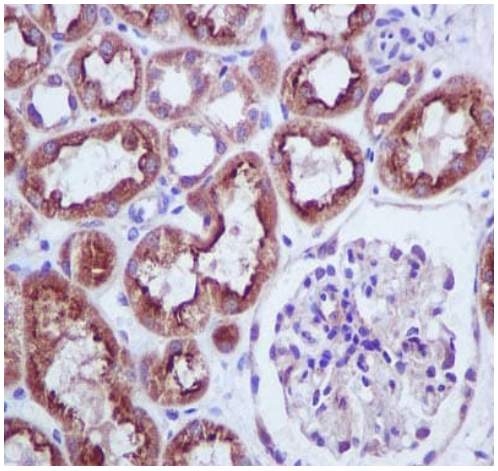
Lysates/proteins at 10 µg per lane.

Predicted band size: 22 kDa
Observed band size: 30 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BNIP3 antibody [EPR4034] (ab109362)

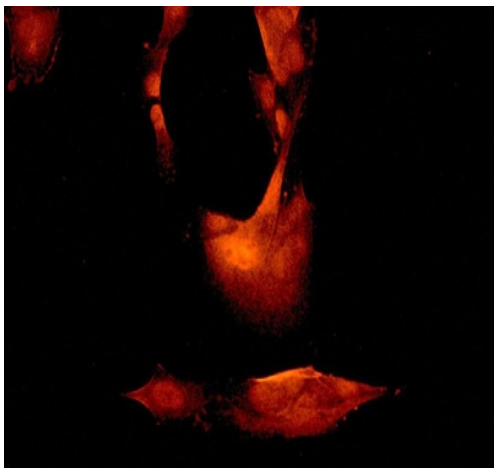
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human renal adenocarcinoma tissue labelling BNIP3 with purified ab109362 at 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BNIP3 antibody [EPR4034] (ab109362)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling BNIP3 with unpurified ab109362 at a 1/50 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-BNIP3 antibody [EPR4034] (ab109362)

Immunocytochemistry/Immunofluorescence analysis of SH-SY5Y cells labelling BNIP3 with unpurified ab109362 at a 1/100 dilution.

Anti-BNIP3 antibody [EPR4034] (ab109362)

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