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Bcl-2 Antibody (BH3 Domain Specific)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1303a

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	P10415
Other Accession	O02718
Reactivity	Human, Mouse, Rat
Predicted	Human, Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	26266
Antigen Region	75-110

Additional Information

Gene ID	596
Other Names	Apoptosis regulator Bcl-2, BCL2
Target/Specificity	This Bcl antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 75-110 amino acids from human Bcl.
Dilution	WB~~1:1000 IHC-P~~1:100 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Bcl-2 Antibody (BH3 Domain Specific) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BCL2
Function	Suppresses apoptosis in a variety of cell systems including factor-dependent lymphohematopoietic and neural cells (PubMed:1508712, PubMed:8183370). Regulates cell death by controlling the mitochondrial membrane permeability (PubMed:11368354). Appears to function in a feedback loop system with

caspases (PubMed:11368354). Inhibits caspase activity either by preventing the release of cytochrome c from the mitochondria and/or by binding to the apoptosis-activating factor (APAF-1) (PubMed:11368354). Also acts as an inhibitor of autophagy: interacts with BECN1 and AMBRA1 during non-starvation conditions and inhibits their autophagy function (PubMed:18570871, PubMed:20889974, PubMed:21358617). May attenuate inflammation by impairing NLRP1- inflammasome activation, hence CASP1 activation and IL1B release (PubMed:17418785).

Cellular Location Mitochondrion outer membrane; Single-pass membrane protein. Nucleus membrane; Single-pass membrane protein. Endoplasmic reticulum membrane; Single-pass membrane protein. Cytoplasm {ECO:0000250|UniProtKB:P10417}

Tissue Location Expressed in a variety of tissues.

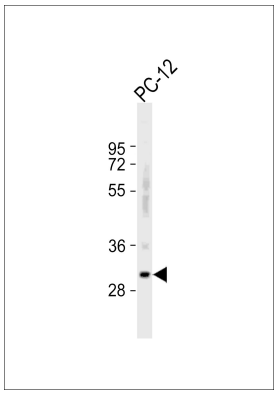
Background

BCL2 is integral outer mitochondrial membrane protein that blocks the apoptotic death of some cells such as lymphocytes. Constitutive expression of BCL2, such as in the case of translocation of BCL2 to Ig heavy chain locus, is thought to be the cause of follicular lymphoma.

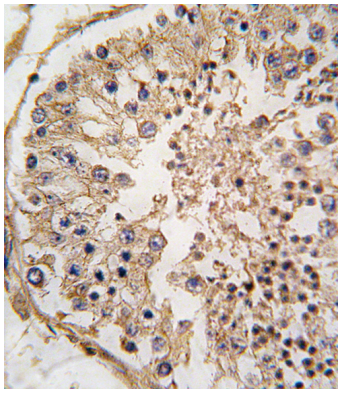
References

Zhu, C.J., et al., J. Neurosci. Res. 74(1):60-66 (2003). Scopa, C.D., et al., Dig. Dis. Sci. 48(10):1990-1997 (2003). Grace, V.M., et al., Gynecol. Oncol. 91(1):51-58 (2003). Thoulouze, M.I., et al., Virology 314(2):549-561 (2003). Iwata, A., et al., J. Immunol. 171(6):3136-3141 (2003).

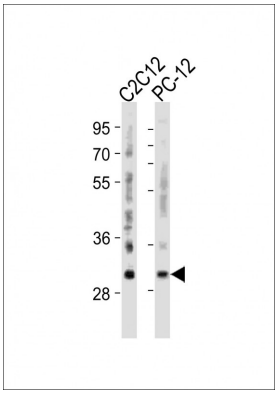
Images



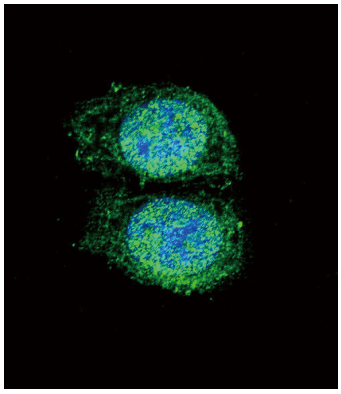
Anti-Bcl-2-BH3 Antibody at 1:1000 dilution + PC-12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26.2 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human testis tissue reacted with Bcl-2 BH3 Domain 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.



Western blot analysis of lysates from mouse C2C12, rat PC-12 cell line (from left to right), using Bcl-2-BH3 Antibody(Cat. #AP1303A). AP1303A was diluted at 1:500 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



Confocal immunofluorescent analysis of Bcl-2 Antibody (BH3 Domain Specific) (Cat#AP1303a) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

Citations

- Tasquinimod enhances the sensitivity of ovarian cancer cells to cisplatin by regulating the Nur77-Bcl-2 apoptotic pathway
- Intravenous Anesthetics Enhance the Ability of Human Bone Marrow-Derived Mesenchymal Stem Cells to Alleviate Hepatic Ischemia-Reperfusion Injury in a Receptor-Dependent Manner
- Isokotomolide A from Cinnamomum kotoense Induce Melanoma Autophagy and Apoptosis
- Isochamaejasmin induces toxic effects on Helicoverpa zea via DNA damage and mitochondria-associated apoptosis
- The conformation change of Bcl-2 is involved in arsenic trioxide-induced apoptosis and inhibition of proliferation in SGC7901 human gastric cancer cells.
- Piezo1 induced apoptosis of type II pneumocytes during ARDS.
- Oridonin phosphate-induced autophagy effectively enhances cell apoptosis of human breast cancer cells.
- Gossypol induces Bax/Bak-independent activation of apoptosis and cytochrome c release via a conformational change in Bcl-2.
- A short Nur77-derived peptide converts Bcl-2 from a protector to a killer.
- During negative selection, Nur77 family proteins translocate to mitochondria where they associate with Bcl-2 and expose its proapoptotic BH3 domain.
- Natural diterpenoid compound elevates expression of Bim protein, which interacts with antiapoptotic protein Bcl-2, converting it to proapoptotic Bax-like molecule.
- ALS-linked mutant SOD1 damages mitochondria by promoting conformational changes in Bcl-2.
- BCL-2 dependence and ABT-737 sensitivity in acute lymphoblastic leukemia.
- Paclitaxel directly binds to Bcl-2 and functionally mimics activity of Nur77.
- Modulation of orphan nuclear receptor Nur77-mediated apoptotic pathway by acetylshikonin and analogues.
- Mitochondrial damage revealed by immunoselection for ALS-linked misfolded SOD1.
- Retinoids Induce Nur77-dependent Apoptosis in Mouse Thymocytes.
- Protein phosphatase 2A inactivates Bcl2\'s antiapoptotic function by dephosphorylation and up-regulation of Bcl2-p53 binding.
- An over-oxidized form of superoxide dismutase found in sporadic amyotrophic lateral sclerosis with bulbar onset shares a toxic mechanism with mutant SOD1.
- Differential Roles for Bim and Nur77 in Thymocyte Clonal Deletion Induced by Ubiquitous Self-Antigen.
- Ropivacaine- and bupivacaine-induced death of rabbit annulus fibrosus cells in vitro: involvement of the mitochondrial apoptotic pathway.
- Oridonin enhances the radiosensitivity of lung cancer cells by upregulating Bax and downregulating Bcl-2.
- Nur77 is a promoting factor in traumatic brain injury-induced nerve cell apoptosis.
- Induction of apoptosis and suppression of tumor growth by Nur77-derived Bcl-2 converting peptide in chemoresistant lung cancer cells.
- Nanoformulated paclitaxel and AZD9291 synergistically eradicate non-small-cell lung cancers in vivo.

- Effects of secreted frizzled-related protein 1 on proliferation, migration, invasion, and apoptosis of colorectal cancer cells.
- Photodynamic Therapy Using Indolines-Fused-Triazoles Induces Mitochondrial Apoptosis in Human Non-Melanoma BCC Cells.
- Synergism between thioredoxin reductase inhibitor ethaselen and sodium selenite in inhibiting proliferation and inducing death of human non-small cell lung cancer cells.
- Hypoxic postconditioning attenuates apoptosis via inactivation of adenosine A2a receptor through NDRG3-Raf-ERK pathway.
- A versatile nanoplatform for synergistic combination therapy to treat human esophageal cancer.
- Klotho overexpression suppresses apoptosis by regulating the Hsp70/Akt/Bad pathway in H9c2(2-1) cells

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.