

**Bcl-2 Antibody (BH3 Domain Specific)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1303a****Specification**

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**Bcl-2 Antibody (BH3 Domain Specific) - Product Information**

Application	IF, WB, IHC-P,E
Primary Accession	<a href="#">P10415</a>
Other Accession	<a href="#">P49950</a> , <a href="#">O02718</a>
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Antigen Region	75-110

**Bcl-2 Antibody (BH3 Domain Specific) - 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**IF~~1:10~50  
WB~~1:1000  
IHC-P~~1:100**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**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.

**Bcl-2 Antibody (BH3 Domain Specific) - 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:[21358617](#), PubMed:[20889974](#)). 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

#### **Tissue Location**

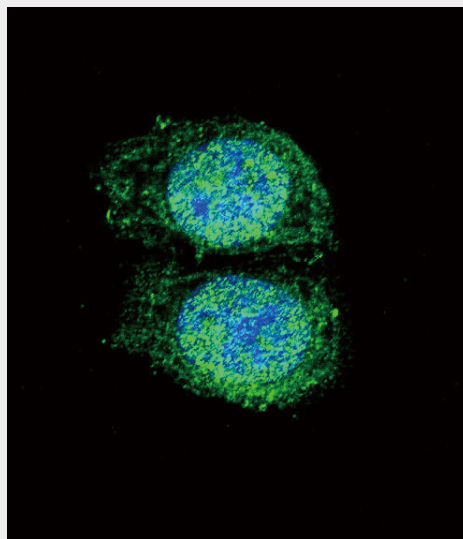
Expressed in a variety of tissues.

### **Bcl-2 Antibody (BH3 Domain Specific) - Protocols**

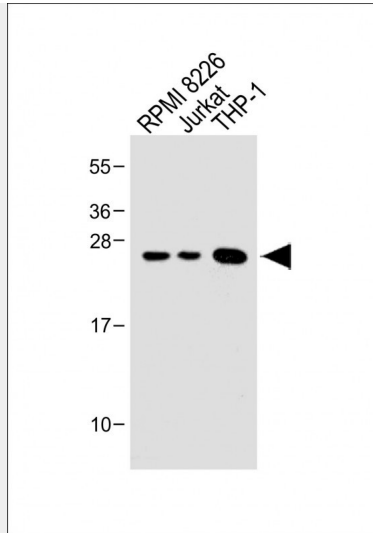
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

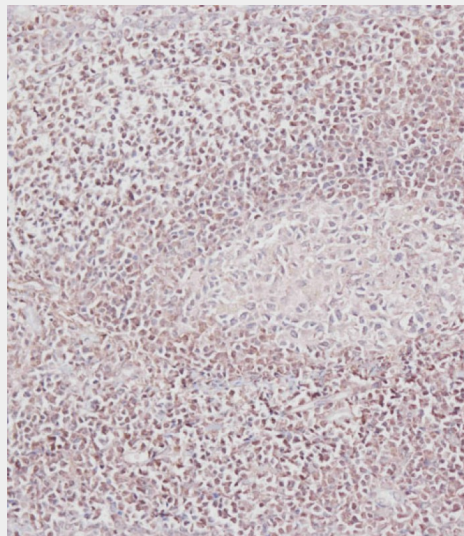
### **Bcl-2 Antibody (BH3 Domain Specific) - Images**



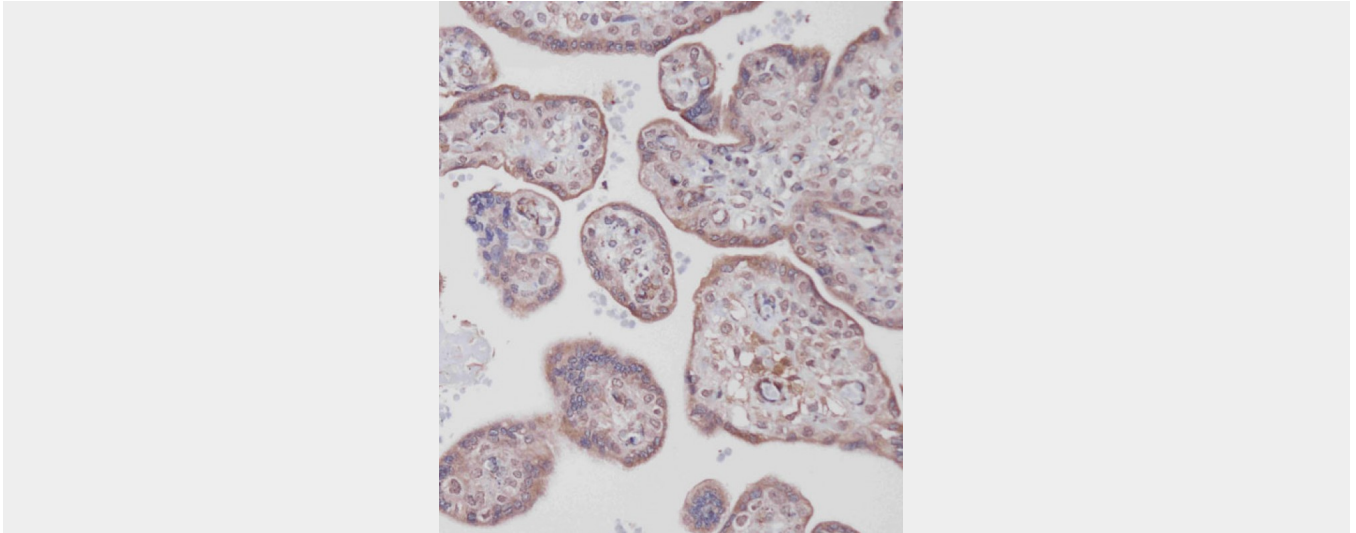
Confocal immunofluorescent analysis of Bcl-2 Antibody (BH3 Domain Specific) (Cat#AP1303a) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



All lanes : Anti-Bcl-2 Antibody (BH3 Domain Specific) at 1:1000 dilution Lane 1: RPMI 8226 whole cell lysate Lane 2: Jurkat whole cell lysate Lane 3: THP-1 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



Immunohistochemical analysis of AP1303a on paraffin-embedded Human tonsil tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Immunohistochemical analysis of AP1303a on paraffin-embedded Human placenta tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

#### **Bcl-2 Antibody (BH3 Domain Specific) - 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.

#### **Bcl-2 Antibody (BH3 Domain Specific) - 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).

#### **Bcl-2 Antibody (BH3 Domain Specific) - Citations**

- [Isochamaejasmin induces toxic effects on Helicoverpa zea via DNA damage and mitochondria-associated apoptosis.](#)
- [Isokotomolide A from Cinnamomum kotoense Induce Melanoma Autophagy and Apoptosis.](#)
- [Piezo1 induced apoptosis of type II pneumocytes during ARDS.](#)
- [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.](#)
- [Nanoformulated paclitaxel and AZD9291 synergistically eradicate non-small-cell lung cancers in vivo.](#)
- [Induction of apoptosis and suppression of tumor growth by Nur77-derived Bcl-2 converting peptide in chemoresistant lung cancer cells.](#)
- [Effects of secreted frizzled-related protein 1 on proliferation, migration, invasion, and apoptosis of colorectal cancer cells.](#)
- [Intravenous Anesthetics Enhance the Ability of Human Bone Marrow-Derived Mesenchymal Stem Cells to Alleviate Hepatic Ischemia-Reperfusion Injury in a Receptor-Dependent Manner.](#)
- [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.](#)
- [Ropivacaine- and bupivacaine-induced death of rabbit annulus fibrosus cells in vitro: involvement of the mitochondrial apoptotic pathway.](#)
- [Differential Roles for Bim and Nur77 in Thymocyte Clonal Deletion Induced by Ubiquitous Self-Antigen.](#)
- [Retinoids Induce Nur77-dependent Apoptosis in Mouse Thymocytes.](#)
- [Oridonin phosphate-induced autophagy effectively enhances cell apoptosis of human breast cancer cells.](#)
- [Mitochondrial damage revealed by immunoselection for ALS-linked misfolded SOD1.](#)
- [An over-oxidized form of superoxide dismutase found in sporadic amyotrophic lateral sclerosis with bulbar onset shares a toxic mechanism with mutant SOD1.](#)
- [Natural diterpenoid compound elevates expression of Bim protein, which interacts with antiapoptotic protein Bcl-2, converting it to proapoptotic Bax-like molecule.](#)
- [Pyruvate kinase \(PKM1 and PKM2\) in cancer-associated fibroblasts drives stromal nutrient production and tumor growth.](#)
- [ALS-linked mutant SOD1 damages mitochondria by promoting conformational changes in Bcl-2.](#)
- [The conformation change of Bcl-2 is involved in arsenic trioxide-induced apoptosis and inhibition of proliferation in SGC7901 human gastric cancer cells.](#)
- [Paclitaxel directly binds to Bcl-2 and functionally mimics activity of Nur77.](#)
- [Protein phosphatase 2A inactivates Bcl2's antiapoptotic function by dephosphorylation and up-regulation of Bcl2-p53 binding.](#)
- [Modulation of orphan nuclear receptor Nur77-mediated apoptotic pathway by acetylshikonin and analogues.](#)
- [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.](#)
- [BCL-2 dependence and ABT-737 sensitivity in acute lymphoblastic leukemia.](#)
- [Gossypol induces Bax/Bak-independent activation of apoptosis and cytochrome c release via a conformational change in Bcl-2.](#)