

Rabbit Bcl-2 Polyclonal Antibody | anti-Bcl-2 antibody

Phospho-Bcl-2 (Thr56) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31360	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (86%), Bovine (83%)	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

Bcl-2; Polyclonal Antibody; Phospho-Bcl-2 (Thr56) Antibody; Apoptosis regulator Bcl 2; Apoptosis regulator Bcl-2; Apoptosis regulator Bcl2; AW986256; B cell CLL/lymphoma 2; B cell leukemia/lymphoma 2; Bcl2; BCL2_HUMAN; C430015F12Rik; D630044D05Rik; D830018M01Rik; Leukemia/lymphoma; B-cell; 2; Oncogene B-cell leukemia 2; PPP1R50; Protein phosphatase 1; regulatory subunit 50; anti-Bcl-2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (86%), Bovine (83%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-Bcl-2 (Thr56) Antibody detects endogenous levels of Bcl-2 only when phosphorylated at Thr56. Tissue Specificity: Expressed in a variety of tissues.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-Bcl-2 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:500-1:2000 IF/ICC: 1:100-1:500 IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human Bcl-2 around the phosphorylation site of Thr56.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation/dephosphorylation on Ser-70 regulates anti-apoptotic activity. Growth factor-stimulated phosphorylation on Ser-70 by PKC is required for the anti-apoptosis activity and occurs during the G2/M phase of the cell cycle. In the absence of growth factors, BCL2 appears to be phosphorylated by other protein kinases such as ERKs and stress-activated kinases. Phosphorylated by MAPK8/JNK1 at Thr-69, Ser-70 and Ser-87, wich stimulates starvation-induced autophagy. Dephosphorylated by protein phosphatase 2A (PP2A) (By similarity).Proteolytically cleaved by caspases during apoptosis. The cleaved protein, lacking the BH4 motif, has pro-apoptotic activity, causes the release of cytochrome c into the cytosol promoting further caspase activity.Monoubiquitinated by PRKN, leading to increase its stability. Ubiquitinated by SCF (FBXO10), leading to its degradation by the proteasome.

Subunit Structure	Forms homodimers, and heterodimers with BAX, BAD, BAK and Bcl-X (L). Heterodimerization with BAX requires intact BH1 and BH2 motifs, and is necessary for anti-apoptotic activity. Interacts with EI24 (By similarity). Also interacts with APAF1, BBC3, BCL2L1, BNIPL, MRPL41 and TP53BP2. Binding to FKBP8 seems to target BCL2 to the mitochondria and probably interferes with the binding of BCL2 to its targets. Interacts with BAG1 in an ATP-dependent manner. Interacts with RAF1 (the 'Ser-338' and 'Ser-339' phosphorylated form). Interacts (via the BH4 domain) with EGLN3; the interaction prevents the formation of the BAX-BCL2 complex and inhibits the anti-apoptotic activity of BCL2. Interacts with G0S2; this interaction also prevents the formation of the anti-apoptotic BAX-BCL2 complex. Interacts with RTL10/BOP. Interacts with the SCF (FBXO10) complex. Interacts (via the loop between motifs BH4 and BH3) with NLRP1 (via LRR repeats), but not with NLRP2, NLRP3, NLRP4, PYCARD, nor MEFV. Interacts with GIMAP3/IAN4, GIMAP4/IAN1 and GIMAP5/IAN5 (By similarity).
Similarity	BH1 and BH2 domains are required for the interaction with BAX and for anti-apoptotic activity.The BH4 motif is required for anti-apoptotic activity and for interaction with RAF1 and EGLN3.The loop between motifs BH4 and BH3 is required for the interaction with NLRP1.Belongs to the Bcl-2 family.
Subcellular Location	Mitochondrion outer membrane>Single-pass membrane protein. Nucleus membrane>Single-pass membrane protein. Endoplasmic reticulum membrane>Single-pass membrane protein.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI(blue).



IHC (Immunohistochemistry)

At 1/100 staining Mouse spleen tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Mouse ovarian tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat colorectal tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

Staining Rat testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from Jurkat paclitaxel 8h, using Phospho-Bcl-2 (Thr56) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-Bcl-2 antibody

Suppresses apoptosis in a variety of cell systems including factor-dependent lymphohematopoietic and neural cells. Regulates cell death by controlling the mitochondrial membrane permeability. Appears to function in a feedback loop system with caspases. 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). May attenuate inflammation by impairing NLRP1-inflammasome activation, hence CASP1 activation and IL1B release.

NCBI AND UNIPROT INFORMATION

NCBI GI #	72198189
NCBI GeneID	596
NCBI Accession #	NP_000624.2
NCBI GenBank Nucleotide #	NM_000633.2
UniProt Accession #	P10415; P10416; Q13842; Q16197
Molecular Weight	26,266 Da
NCBI Official Full Name	apoptosis regulator Bcl-2 alpha isoform
NCBI Official Synonym Full Names	B-cell CLL/lymphoma 2
NCBI Official Symbol	BCL2
NCBI Official Synonym Symbols	Bcl-2; PPP1R50
NCBI Protein Information	apoptosis regulator Bcl-2; protein phosphatase 1, regulatory subunit 50
UniProt Protein Name	Apoptosis regulator Bcl-2
UniProt Gene Name	BCL2
UniProt Entry Name	BCL2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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