

Product datasheet

Anti-Bcl-2 antibody [124] ab694

6 References 3 Images

Overview

Product name	Anti-Bcl-2 antibody [124]
Description	Mouse monoclonal [124] to Bcl-2
Host species	Mouse
Tested applications	Suitable for: WB, IP, IHC-P, IHC-Fr, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment corresponding to Bcl-2 aa 41-54. Database link: P10415
Positive control	human tonsil.
General notes	Bcl-2 is encoded by a gene involved in the 14; 18 chromosomal translocation. In lymphoid tissues, this antibody stains B lymphocytes as well as T cells.

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. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: Tissue culture supernatant, 1% BSA
Purity	Tissue culture supernatant
Primary antibody notes	Bcl-2 is encoded by a gene involved in the 14; 18 chromosomal translocation. In lymphoid tissues, this antibody stains B lymphocytes as well as T cells.
Clonality	Monoclonal
Clone number	124
Isotype	IgG1
Light chain type	kappa

Applications

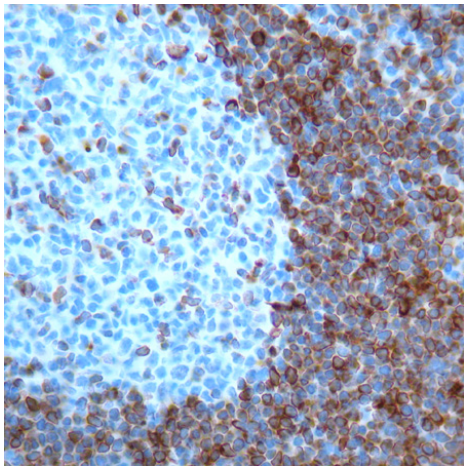
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The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. For 30 - 60 mins at RT (ABC method).
IP		1/100 - 1/750.
IHC-P		1/15 - 1/50. This antibody works well with B5 or Bouin's fixed tissues. Formalin fixed tissues may give inconsistent results.
IHC-Fr		1/15 - 1/50.
ICC/IF		Use at an assay dependent concentration. PubMed: 22590627

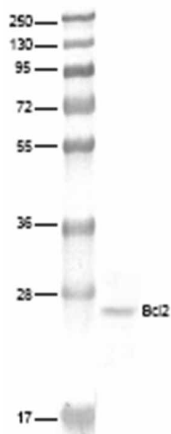
Target

Function	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 (PubMed:17418785).
Tissue specificity	Expressed in a variety of tissues.
Involvement in disease	A chromosomal aberration involving BCL2 has been found in chronic lymphatic leukemia. Translocation t(14;18)(q32;q21) with immunoglobulin gene regions. BCL2 mutations found in non-Hodgkin lymphomas carrying the chromosomal translocation could be attributed to the lg somatic hypermutation mechanism resulting in nucleotide transitions.
Sequence similarities	Belongs to the Bcl-2 family.
Domain	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.
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). 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 PARK2, leading to increase its stability. Ubiquitinated by SCF(FBXO10), leading to its degradation by the proteasome.
Cellular localization	Mitochondrion outer membrane. Nucleus membrane. Endoplasmic reticulum membrane.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-2 antibody [124] (ab694)

ab694 staining Bcl-2 in the human tonsils section by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Suggested incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user. This antibody works well with B5 or Bouin's fixed tissues. Formalin-fixed tissues may give inconsistent results.



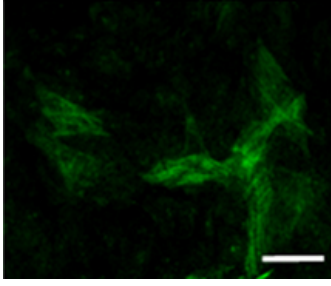
Western blot - Anti-Bcl-2 antibody [124] (ab694)

All lanes : Anti-Bcl-2 antibody [124] (ab694)

Lane 1 : Protein ladder, kDa

Lane 2 : Whole cell extract from human lung cell

Predicted band size: 26 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Bcl-2 antibody [124] (ab694)

Image from Chen HC et al., PLoS One. 2012;7(5):e368864. Epub 2012 May 9. Fig 1.; doi: 10.1371/journal.pone.00368864; May 9, 2012, PLoS One. 2012; 7(5): e368864.

Immunofluorescence analysis of ARPE-19 cells, staining Bcl-2 with ab694 at 1/200 dilution.

ARPE-19 monolayer cultures were fixed in paraformaldehyde, permeabilized with 0.2% Triton X-100 for 15 min and blocked with 2% BSA for 30 min. Samples were incubated with primary antibody for 16 hours at 4°C before incubation with an AlexaFluor®488-conjugated donkey anti-mouse secondary IgG for 60 min.

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