Anti-Bcl-2 antibody [E17] ab32124

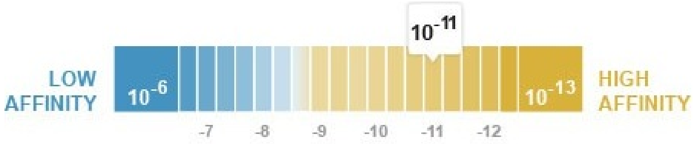
RabMAb®

★★☆☆☆ 7 Abreviews | 13 References | 7 Images

Overview

Product name	Anti-Bcl-2 antibody [E17]
Description	Rabbit monoclonal [E17] to Bcl-2
Specificity	The antibody recognises Bcl-2. It does not cross-react with other Bcl-2 family members.
Tested applications	WB, IHC-P, ICC/IF, Flow Cyt, IP
Species reactivity	**Reacts with:** Mouse, Human **Does not react with** Rat
Immunogen	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) corresponding to Human Bcl-2 aa 50-150. Database link: P10415
Positive control	Jurkat cell lysate and human breast carcinoma.
General notes	Produced under U.S. Patent No. 5,675,063. This product is available conjugated to DyLight® 488 see ab139926. A trial size is available for this product.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Dissociation constant (K_D)	$K_D = 3.00 \times 10^{-11}$ M  Learn more about K_D
Storage buffer	PBS 49%,Sodium azide 0.01%,Glycerol 50%,BSA 0.05%
Purity	IgG fraction
Clonality	Monoclonal
Clone number	E17
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab32124** in the following tested applications.

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

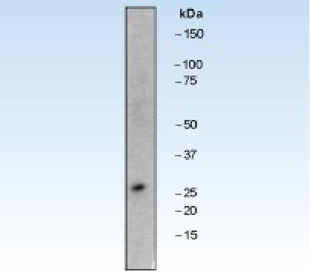
Application	Abreviews	Notes
WB	★★☆☆☆	1/1000 - 1/10000. Detects a band of approximately 26 kDa (predicted molecular weight: 26 kDa).
IHC-P		Use at an assay dependent concentration.

		We do not recommend rat and mouse samples with IHC.
ICC/IF		1/200.
Flow Cyt	★☆☆☆☆	1/200.
IP	★★★★★	1/50.

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).
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 Ig somatic hypermutation mechanism resulting in nucleotide transitions.
Sequence similarities	Belongs to the Bcl-2 family.
Domain	The BH4 motif is required for anti-apoptotic activity and for interaction with RAF1 and EGLN3.
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.
Cellular localization	Mitochondrion outer membrane. Nucleus membrane. Endoplasmic reticulum membrane.

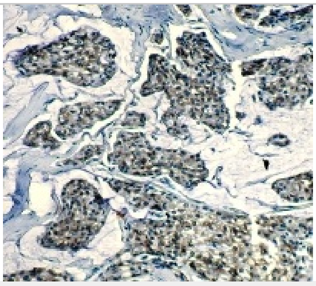
Anti-Bcl-2 antibody [E17] images



Western blot - Anti-Bcl-2 [E17] antibody (ab32124)

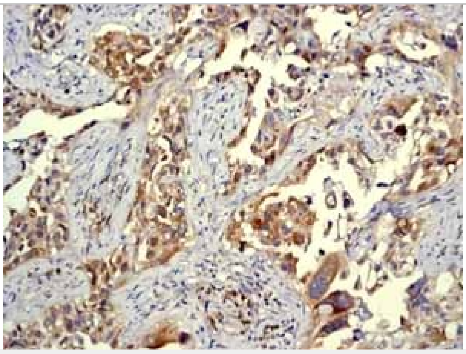
Anti-Bcl-2 antibody [E17] (ab32124) at 1/1000 dilution + Jurkat cell lysate

Predicted band size : 26 kDa
Observed band size : 26 kDa



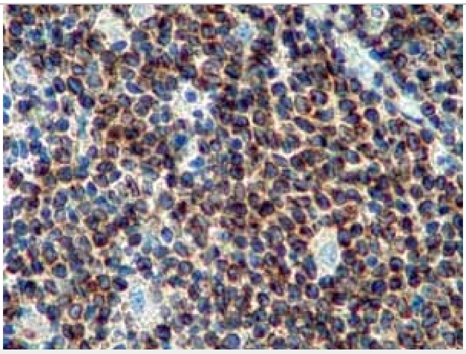
Anti-Bcl-2 [E17] antibody (ab32124)

Immunohistochemical analysis of paraffin-embedded human breast carcinoma using ab32124 at 1/200 dilution.Immunohistochemical analysis of paraffin-embedded human breast carcinoma using ab32124 at 1/200 dilution.



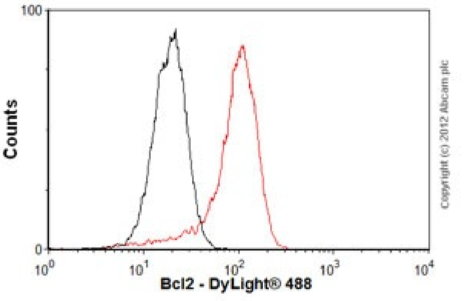
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-2 [E17] antibody (ab32124)

ab32124 showing positive staining in Lung adenocarcinoma tissue.



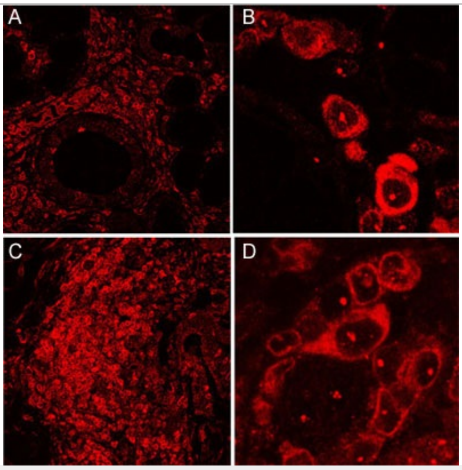
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-2 [E17] antibody (ab32124)

ab32124 showing positive staining in B cell lymphoma tissue.



Flow Cytometry - Anti-Bcl-2 [E17] antibody (ab32124)

Overlay histogram showing Jurkat cells stained with ab32124 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab32124, 1/100 dilution) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1μg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Jurkat cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



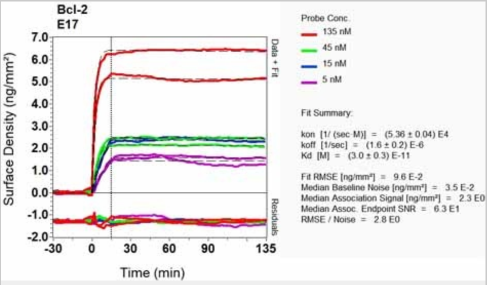
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-2 [E17] antibody (ab32124)

Image from Szyszko EA et al., Arthritis Res Ther. 2011 Jan 7;13(1):R2. Fig 5.; doi:10.1186/ar3220; 7 January 2011, Arthritis Research & Therapy 2011, 13:R2

Immunohistochemical analysis of Human salivary glands taken from patients with primary Sjögren's syndrome, staining Bcl-2 with ab32124.

Antigen retrieval was performed via heat mediation in a citrate buffer (pH 6). Sections were blocked using 2% BSA, 10% normal serum and permeabilized with 0.5% Triton X-100. Samples were incubated with primary antibody (1/100) for one hour at room temperature. An AlexaFluor®594-conjugated anti-rabbit IgG was used as the secondary antibody.

N.B. Panels B and D are higher magnifications of panels A and C, respectively.



Other - Anti-Bcl-2 [E17] antibody (ab32124)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

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