**Product datasheet**

**Anti-Bcl-2 antibody ab196495**

7 References 8 Images

### Overview

**Product name**  
Anti-Bcl-2 antibody

**Description**  
Rabbit polyclonal to Bcl-2

**Host species**  
Rabbit

**Tested applications**  
Suitable for: IHC-P, WB, ICC/IF

**Species reactivity**  
Reacts with: Mouse, Rat, Human

**Immunogen**  
Recombinant fragment corresponding to Human Bcl-2. (Near N terminal).  
Database link: P10415

**Positive control**  
ICC/IF: A549 cells. IHC-P: Rat kidney and lung tissues; Mouse lung tissue; Human liver cancer tissue; Breast cancer tissue. WB: HL-60 and BT474 cell extracts.

### Properties

**Form**  
Liquid

**Storage instructions**  

**Storage buffer**  
pH: 7.40  
Preservative: 0.02% Sodium azide  
Constituents: 50% Glycerol, 0.87% Sodium chloride, 49% PBS  
PBS without Mg$^{2+}$ and Ca$^{2+}$.

**Purity**  
Immunogen affinity purified

**Clonality**  
Polyclonal

**Isotype**  
IgG

### Applications

Our Abpromise guarantee covers the use of ab196495 in the following tested applications.  
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
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 Ig 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, which 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

Images
**Western blot** - Anti-Bcl-2 antibody (ab196495) at 1/500 dilution

- **Lane 1**: HL-60 cell extract
- **Lane 2**: BT474 cell extract

**Predicted band size**: 26 kDa

Immunofluorescent analysis of A549 (human lung carcinoma cell line) cells labeling Bcl-2 with ab196495 at 1/50 dilution. Blue: DAPI for nuclear staining.

Immunohistochemical analysis of paraffin-embedded breast cancer tissue labeling Bcl-2 with ab196495 at 1/50 dilution.
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue labeling Bcl-2 with ab196495 at 1/100 dilution.

Immunohistochemical analysis of paraffin-embedded mouse lung tissue labeling Bcl-2 with ab196495 at 1/100 dilution.

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling Bcl-2 with ab196495 at 1/100 dilution.
Immunohistochemical analysis of paraffin-embedded rat lung tissue labeling Bcl-2 with ab196495 at 1/100 dilution.

All lanes: Anti-Bcl-2 antibody (ab196495)

Lane 1: Total protein isolated from brain of rat offspring raised on control mothers
Lane 2: Total protein isolated from brain of rat offspring exposed prenatally to 5 mg/kg of cypermethrin
Lane 3: Total protein isolated from brain of rat offspring exposed postnatally to 10 mg/kg of cypermethrin
Lane 4: Total protein isolated from brain of rat offspring exposed prenatally to 5 mg/kg of cypermethrin and subsequently rechallenged with cypermethrin (10 mg/kg) at adulthood

Lysates/proteins at 50 µg per lane.

Predicted band size: 26 kDa

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