**Overview**

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Bcl-2 antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to Bcl-2</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>pH: 7.40</td>
</tr>
<tr>
<td></td>
<td>Preservative: 0.02% Sodium azide</td>
</tr>
<tr>
<td></td>
<td>Constituents: 50% Glycerol, 0.87% Sodium chloride, 49% PBS</td>
</tr>
<tr>
<td></td>
<td>PBS without Mg²⁺ and Ca²⁺.</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Polyclonal</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
</tr>
</tbody>
</table>

**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.
<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-P</td>
<td>1/50 - 1/200. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
<td></td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/50 - 1/200.</td>
<td></td>
</tr>
</tbody>
</table>

**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 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)

All lanes: 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

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**Immunocytochemistry/Immunofluorescence** - Anti-Bcl-2 antibody (ab196495)

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 post natailly 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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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