

## Product datasheet

# Anti-Bcl-2 antibody ab194583

[107 References](#) [6 Images](#)

### Overview

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<b>Product name</b>	Anti-Bcl-2 antibody
<b>Description</b>	Rabbit polyclonal to Bcl-2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, ICC/IF, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human Bcl-2 aa 1-100. Database link: <a href="#">P10415</a> <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>Positive control</b>	WB: HL-60 cell lysate, mouse testis, rat lung and rat liver tissue lysates; IHC: Human lung cancer, rat brain and mouse testis; ICC/IF: C6, NIH-3T3 and U-2 OS cells.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 49% PBS
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab194583 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
IHC-P		1/50 - 1/100. <b>ab171870</b> - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/500 - 1/2000. Predicted molecular weight: 26 kDa.
ICC/IF		1/50 - 1/100.
IP		1/1000.

## 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

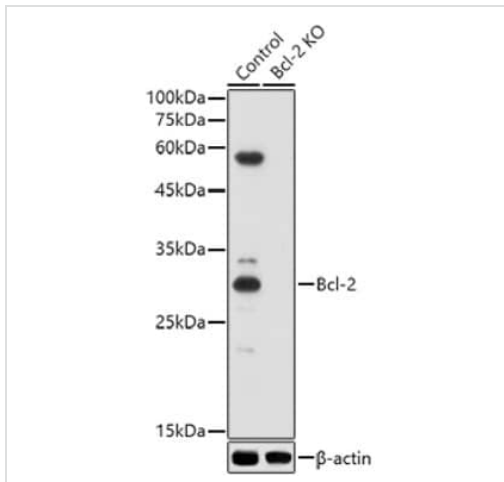
BH1 and BH2 domains are required for the interaction with BAX and for anti-apoptotic activity. The BH4 motif is required for anti-apoptotic activity and for interaction with RAF1 and EGLN3. The loop between motifs BH4 and BH3 is required for the interaction with NLRP1.

### 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, 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.



Western blot - Anti-Bcl-2 antibody (ab194583)

**All lanes** : Anti-Bcl-2 antibody (ab194583) at 1/500 dilution

**Lane 1** : 239T cell lysate

**Lane 2** : 239T Bcl-2 knock-out cell lysate

Lysates/proteins at 25 µg per lane.

**Secondary**

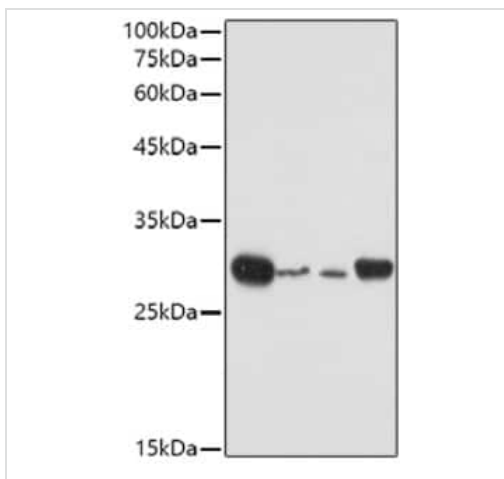
**All lanes** : HRP Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

**Predicted band size:** 26 kDa

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 30s.



Western blot - Anti-Bcl-2 antibody (ab194583)

**All lanes** : Anti-Bcl-2 antibody (ab194583) at 1/500 dilution

**Lane 1** : Mouse lung cell extract

**Lane 2** : Mouse spleen cell extract

**Lane 3** : Rat spleen cell extract

**Lane 4** : Rat ovary cell extract

Lysates/proteins at 25 µg per lane.

**Secondary**

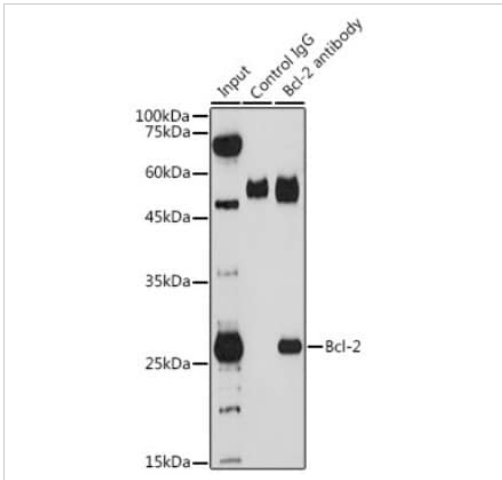
**All lanes** : HRP Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

**Predicted band size:** 26 kDa

Blocking buffer: 3% nonfat dry milk in TBST.

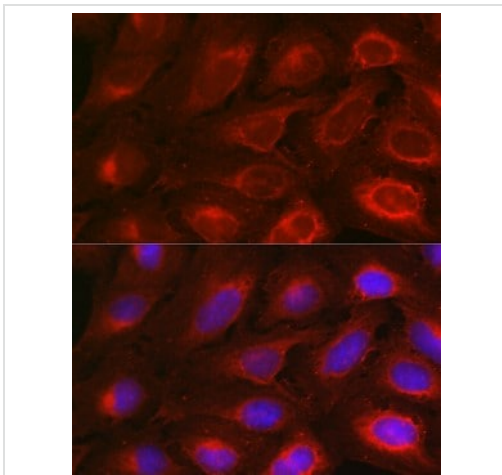
Detection: ECL Basic Kit

Exposure time: 30 seconds



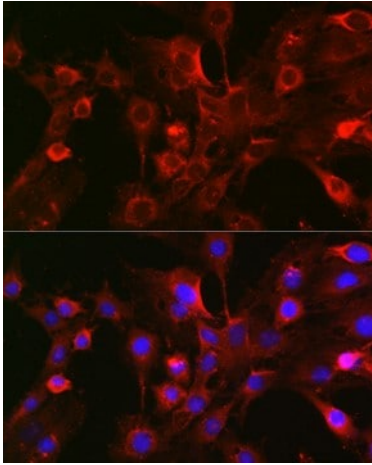
Immunoprecipitation - Anti-Bcl-2 antibody (ab194583)

Immunoprecipitation analysis of 200ug extracts of THP-1 cells using 3ug Bcl-2 antibody (ab194583). Western blot was performed from the immunoprecipitate using Bcl-2 antibody (ab194583) at a dilution of 1:1000.



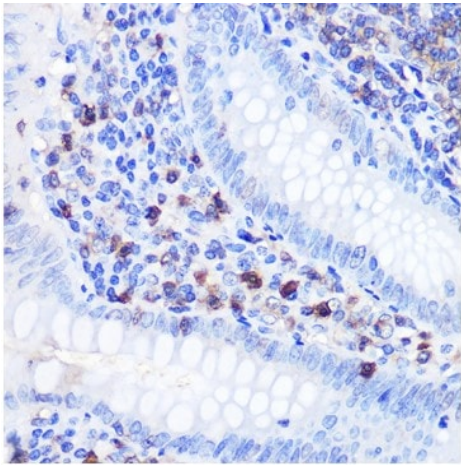
Immunocytochemistry/ Immunofluorescence - Anti-Bcl-2 antibody (ab194583)

Immunofluorescence analysis of U-2 OS cells using Bcl-2 Rabbit pAb (A0208) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of C6 cells using Bcl-2 Rabbit pAb (A0208) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.

Immunocytochemistry/ Immunofluorescence - Anti-Bcl-2 antibody (ab194583)



Immunohistochemistry of paraffin-embedded human appendix using Bcl-2 Rabbit pAb (ab194583) at dilution of 1:100 (40x lens). Perform microwave antigen retrieval with 10 mM PBS buffer pH 7.2 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-2 antibody (ab194583)

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

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