# abcam

# Product datasheet

# Anti-Bcl-2 antibody ab 196495

507 References 3 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: HepG2. IHC-P: Human colon carcinoma. WB: HL-60 and MCF7 cell lysates, mouse brain,

liver and lung tissue lysates.

**General notes**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.

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&As

**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 long

term. Avoid freeze / thaw cycle.

**Storage buffer** pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: 50% Glycerol, 0.87% Sodium chloride, 49% PBS

PBS without Mg<sup>2+</sup> and Ca<sup>2+</sup>.

Purity Immunogen affinity purified

**Clonality** Polyclonal

**Isotype** IgG

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#### **Applications**

#### The Abpromise guarantee

Our Abpromise quarantee 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.

Application	Abreviews	Notes
IHC-P		1/100 - 1/300. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		1/500 - 1/2000. Predicted molecular weight: 26 kDa. Primary antibody incubation at 4°C overnight.
ICC/IF		1/200 - 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 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.

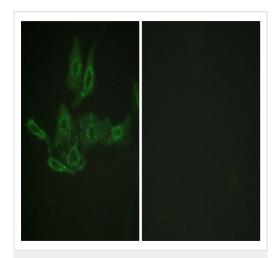
Monoubiquitinated by PARK2, leading to increase its stability. Ubiquitinated by SCF(FBXO10),

leading to its degradation by the proteasome.

### **Cellular localization**

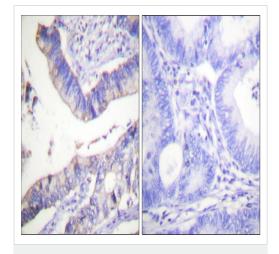
Mitochondrion outer membrane. Nucleus membrane. Endoplasmic reticulum membrane.

#### **Images**



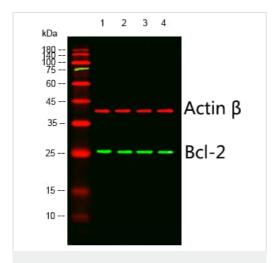
Immunocytochemistry/ Immunofluorescence - Anti-Bcl-2 antibody (ab196495)

Immunofluorescence analysis of HepG2 cells, using ab196495. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Bcl-2 antibody (ab196495)

Immunohistochemistry analysis of paraffin-embedded human colon carcinoma tissue, using ab196495. The picture on the right is blocked with the synthesized peptide.



Western blot - Anti-Bcl-2 antibody (ab196495)

**All lanes :** Anti-Bcl-2 antibody (ab196495) at 1/1000 dilution (4°over night.)

Lane 1 : Mouse liver
Lane 2 : Mouse brain
Lane 3 : Mouse lung
Lane 4 : MCF-7 cells

# Secondary

All lanes: Dylight 800 at 37°, 1 hour at 1/10000 dilution

Predicted band size: 26 kDa

Western Blot analysis of lysates - Green.

Loading control - Red:

Actin Beta Monoclonal Antibody diluted at 1:5000, 4° over night. Dylight 680 secondary antibody, diluted at 1:10000, 37°, 1hour.

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

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