abcam

ab212800

Anti-Bcl-2 antibody [100/D5] - BSA and Azide free

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human BCL2 aa 1-100. The exact immunogen used to generate this antibody is proprietary information. Database link P10415
Carrier free	Yes
Clone number	100/D5
Purification technique	Affinity purification Protein A/G
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab212800 is purified from Bioreactor Concentrate by Protein A/G.

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	1-2 µg for 10^6 Cells
Notes	(in 0.1ml volume)

Expected

Species	Cat, Horse, Pig, Llama
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	(in 0.1ml volume)

Species	Rat
Dilution info	-
Notes	(in 0.1ml volume)

Species	Cow
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	-

Expected

Species	Cat, Horse, Pig, Llama
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat, Cow
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	(for 30 minutes at RT) Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Cat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Horse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Pig
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Llama
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	(for 30 minutes at RT) Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	(for 30 minutes at RT) Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Cow
Dilution info	-
Notes	-

Target data

See full target information BCL2

Function	Suppresses apoptosis in a variety of cell systems including factor-dependent lymphohematopoietic and neural cells (PubMed:1508712, PubMed:8183370). Regulates cell death by controlling the mitochondrial membrane permeability (PubMed:11368354). Appears to function in a feedback loop system with caspases (PubMed:11368354). 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) (PubMed:11368354). Also acts as an inhibitor of autophagy: interacts with BECN1 and AMBRA1 during non-starvation conditions and inhibits their autophagy function (PubMed:18570871, PubMed:20889974, PubMed:21358617). May attenuate inflammation by impairing NLRP1-inflammasome activation, hence CASP1 activation and IL1B release (PubMed:17418785).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Bcl-2 also known as B-cell lymphoma 2 is an important protein involved in the regulation of apoptosis. It mechanically functions by inhibiting cell death and is a member of the Bcl-2 family of proteins. Bcl-2 has a molecular weight of approximately 26 kDa. It is expressed mainly in fetal and adult tissues including the immune system and is notably present in hematopoietic stem cells and various cell lines derived from lymphoid tissues. In laboratory practices scientists often assess Bcl-2 expression levels through techniques like western blotting using antibodies such as 10c4 for detection.
Biological function summary	The role of Bcl-2 extends to maintaining cell survival and balancing apoptotic signals. It functions as an anti-apoptotic molecule within the cell primarily involved in forming complexes with pro-apoptotic members of the Bcl-2 family like Bax and Bak. These interactions prevent mitochondrial membrane permeabilization which is an important step in apoptotic signal transduction. As an important regulator of apoptosis Bcl-2 helps in cellular homeostasis and appropriate immune responses under physiological conditions.
Pathways	Bcl-2 plays a critical role in the intrinsic or mitochondrial pathway of apoptosis. Within this pathway Bcl-2 interacts with other proteins such as cytochrome c and APAF-1 to inhibit apoptosis. This pathway involves a network of Bcl-2 family proteins where Bcl-2's anti-apoptotic role counteracts the pro-apoptotic activity of proteins like Bax. These interactions help fine-tune the apoptotic response to various internal stimuli maintaining cellular integrity and function.
Associated diseases and disorders	The dysregulation of Bcl-2 expression has been implicated in cancer and autoimmune diseases. Overexpression of Bcl-2 is associated with several types of cancer including lymphomas and breast cancer where its anti-apoptotic property leads to tumor cell survival and resistance to chemotherapy. Bcl-2 also connects to disorders such as autoimmune diseases due to its regulation of cell survival with proteins like Bim playing an opposite role in promoting apoptosis. Understanding Bcl-2's functionality within these contexts is essential for developing targeted therapies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

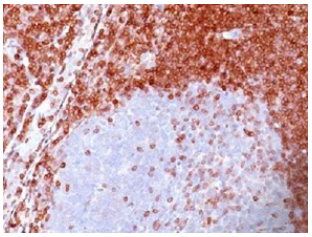
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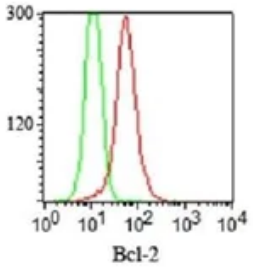
4 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-2 antibody [100/D5] - BSA and Azide free (ab212800)

Bcl-2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Bcl-2 antibody

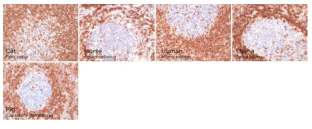
Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human non-Hodgkin's Lymphoma tissue labeling Bcl-2 with ab212800 at 1 µg/ml.



Flow Cytometry - Anti-Bcl-2 antibody [100/D5] - BSA and Azide free (ab212800)

Bcl-2 Flow Cytometry staining using mouse Anti-Bcl-2 antibody

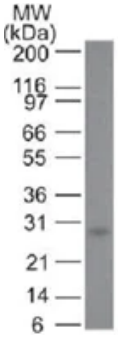
Flow cytometric analysis of Jurkat cells labeling Bcl-2 uwith ab212800 at 1µg/10^6 cells (red), compared with an isotype control (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-2 antibody [100/D5] - BSA and Azide free (ab212800)

Bcl-2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Bcl-2 antibody

This data was developed using ab692, the same antibody clone in a different buffer formulation The BOND™ Polymer Refine Detection System on the BOND RX Automated Stainer (DS9800, Leica Biosystems, Wetzlar, Germany) was used for immunohistochemical labelling of formalin-fixed, paraffin-embedded (FFPE) tissues. The protocol includes a peroxide block, post-primary reagent, polymer detection, DAB chromogen, and haematoxylin counterstain, all automated to minimize variability. Antigen retrieval was performed by heat-induced epitope retrieval (HIER) for 20 minutes in Tris-EDTA buffer (BOND Epitope Retrieval Solution 2, AR9640, Leica Biosystems, Wetzlar, Germany). For mouse and rabbit antibodies, the sequence comprised peroxide block (10 min), primary antibody incubation (30 min), post-primary (10 min), polymer (10 min), DAB (10 min), and haematoxylin (8 min). For rat antibodies, an anti-rat step (1:300 dilution, Vector Laboratories, California, USA; 20 min) was included prior to polymer application (15 min).



Western blot - Anti-Bcl-2 antibody [100/D5] - BSA and Azide free (ab212800)

All lanes:
Western blot - Anti-Bcl-2 antibody [100/D5] - BSA and Azide free (ab212800) at 1 µg/mL

All lanes:
Human skin lysate

Predicted band size: 26 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.