

## Alexa Fluor<sup>®</sup> 647 anti-Bcl-2 Antibody

<b>Catalog# / Size</b>	658705 / 25 tests 658706 / 100 tests
<b>Clone</b>	100
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	B-Cell CLL/Lymphoma 2 (Bcl-2), Protein Phosphatase 1, Regulatory Subunit 50
<b>Isotype</b>	Mouse IgG1
<b>Description</b>	Bcl-2 is a conserved anti-apoptotic protein that plays important roles in normal immunity. It forms homodimers or heterodimers with other Bcl-2 family members. This protein regulates apoptosis through controlling mitochondrial fusion and fission. Phosphorylation of Bcl-2 has been shown to enhance activity to allow response to extracellular growth-factor-mediated signals. Bcl-2 is also regulated by IRES, miR-15a, miR-16-1 and RNA-BP nucleolin. Chromosome 18q21.3 translocation and overexpression of Bcl-2 is frequently observed in follicular lymphomas and some diffuse large B-cell lymphomas.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Synthetic peptide of amino acids 41-54 of human bcl-2 oncoprotein
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor <sup>®</sup> 647 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</a> <a href="#">SB - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.  * Alexa Fluor <sup>®</sup> 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.  Alexa Fluor <sup>®</sup> and Pacific Blue™ are trademarks of Life Technologies Corporation.  <a href="#">View full statement regarding label licenses</a>
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	Additional reported application (for relevant formats) include: spatial biology (IBEX) <sup>3,4</sup> .
<b>Additional Product Notes</b>	Iterative Bleaching Extended multi-plexity (IBEX) is a fluorescent imaging technique capable of highly-multiplexed spatial analysis. The method relies on cyclical bleaching of panels of fluorescent antibodies in order to image and analyze many markers over multiple cycles of staining, imaging, and, bleaching. It is a community-developed open-access method developed by the Center for Advanced Tissue Imaging (CAT-I) in the National Institute of Allergy and Infectious Diseases (NIAID, NIH).
<b>Application References</b>	1. Pezzella F, <i>et al.</i> 1993. <i>New Eng. J. Med.</i> 329:690. (IHC)

(PubMed link indicates BioLegend citation)

1. Pezzella F, *et al.* 1990. *Am. J. Pathol.* 137:225. (IHC)
2. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci U S A.* 117:33455-65. (SB) [PubMed](#)
3. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

#### Product Citations

1. Lin JR *et al.* 2018. *eLife.* 7 pii: e31657. [PubMed](#)
2. Herrera FG, *et al.* 2019. *Int J Radiat Oncol Biol Phys.* 103:320. [PubMed](#)
3. Lin J, Sorger M 2015. *Sci Rep.* 6: 8390. [PubMed](#)
4. Cai J, *et al.* 2021. *eLife.* 10:00. [PubMed](#)

#### RRID

AB\_2563279 (BioLegend Cat. No. 658705)  
AB\_2563280 (BioLegend Cat. No. 658706)

## Antigen Details

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<b>Structure</b>	Two isoforms, 239 or 205 amino acids in length, with a predicted molecular weight of 26 kD or 22 kD and four 'BH' domains.
<b>Distribution</b>	Outer mitochondrial membrane, nuclear membrane, endoplasmic reticulum membrane.
<b>Function</b>	Regulates apoptosis through controlling mitochondrial fusion and fission.
<b>Interaction</b>	BAX, BAD, BAK, Bcl-X(L), EI24, APAF1, BBC3, BCL2L1, BNIP1, MRPL41, TP53BP2, FKBP8 BAG1, RAF1, EGLN3, G0S2, and BOP.
<b>Cell Type</b>	B cells
<b>Biology Area</b>	Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Cell Cycle/DNA Replication, Chromatin Remodeling/Epigenetics, Immunology, Mitochondrial Function, Neuroscience, Signal Transduction, Transcription Factors, Ubiquitin/Protein Degradation

#### Antigen References

1. Lin P, *et al.* 2013. *Curr. Hematol. Malign. Rep.* 8:243.
2. Tomita N. 2011. *J. Clin. Exp. Hematop.* 51:7.
3. Kelly PN, *et al.* 2011. *Cell Death Differ.* 18:1414.
4. Willimott S, *et al.* 2010. *Biochem. Soc. Trans.* 38:1571.
5. Rolland SG, *et al.* 2010. *Curr. Opin. Cell Biol.* 22:852.

#### Gene ID

[596](#)

## Related Protocols

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[Intracellular Cytokine Staining Protocol - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

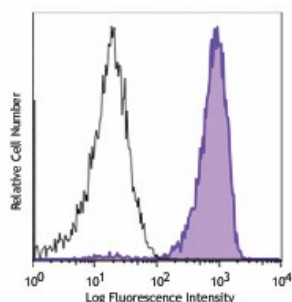
## Other Formats

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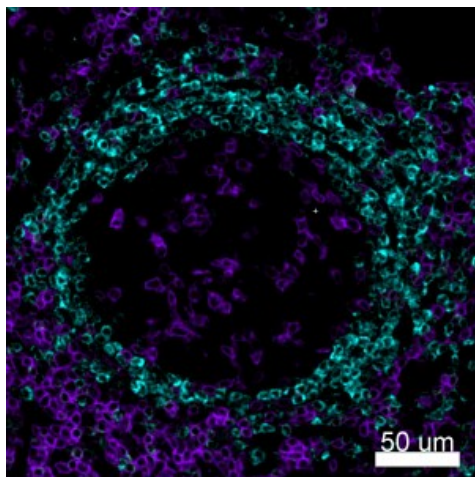
Purified anti-Bcl-2, Alexa Fluor® 647 anti-Bcl-2, Alexa Fluor® 488 anti-Bcl-2, PE anti-Bcl-2, Brilliant Violet 421™ anti-Bcl-2

## Product Data

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Human peripheral blood lymphocytes were treated with Fixation Buffer (Cat. No. 420801) and Permeabilization Wash Buffer (Cat. No. 421002), then stained with Bcl-2 (clone 100) Alexa Fluor® 647 (filled histogram) or mouse IgG1, κ Alexa Fluor® 647 isotype control (open histogram).



Confocal image of human lymph node sample acquired using the IBEX method of highly multiplexed antibody-based imaging: BCL2 (cyan) in Cycle 1, CD3 (purple) in Cycle 4. Tissues were prepared using ~1% (vol/vol) formaldehyde and a detergent. Following fixation, samples are immersed in 30% (wt/vol) sucrose for cryoprotection. Images are courtesy of Drs. Andrea J. Radtke and Ronald N. Germain of the Center for Advanced Tissue Imaging (CAT-I) in the National Institute of Allergy and Infectious Diseases (NIAID, NIH).

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8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587