

## Alexa Fluor® 488 anti-Bcl-2 Antibody

<b>Catalog# / Size</b>	633505 / 25 µg 633506 / 100 µg
<b>Clone</b>	BCL/10C4
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	B-cell leukemia 2
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	Bcl-2 (B-cell leukemia 2) is an apoptotic protein and a member of the Bcl-2 family containing BH1-4 domains. Two reported isoforms exist α=25 kD; β=22 kD. The Bcl-2 protein forms homo- or hetero-dimers with other Bcl-2 family members. Bcl-2 is distributed in the outer mitochondrial membrane, the nuclear envelope, and the endoplasmic reticulum. This protein blocks apoptotic death by controlling mitochondrial membrane permeability. Cleavage of Bcl-2 can convert to pro-apoptotic (by cleavage of BH4 domain). Bcl-2 has been reported to regulate cell cycle progression via ROS. This protein is modified by ASK1/JNK1, PKC, ERKs, and stress-activated kinase phosphorylation and can be ubiquitinated. Bcl-2 has been shown to interact with Apaf-1, Raf-1, TP53BP2, caspase-3, and form heterodimers with Bax, Bad, Bak, Bcl-x <sub>L</sub> , and Bag-1. Clone BCL/10C4 has been shown to be useful for Western blotting, immunoprecipitation, and immunofluorescence of the mouse and rat Bcl-2 protein.

### Product Details

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<b>Reactivity</b>	Mouse, Rat
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	N-terminal, Amino acid residues 61-76 of mouse Bcl-2
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<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>
<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 ≤ 1.0 µg per 10 <sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.  * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.  Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.  <a href="#">View full statement regarding label licenses</a>
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunohistochemical staining of frozen tissue <sup>4</sup> , immunocytochemical staining <sup>5</sup> , and immunoprecipitation <sup>5</sup> .
<b>Application References</b>	1. Hsu YT, <i>et al.</i> 1997. <i>J. Biol. Chem.</i> 272:13829. 2. Zuber J, <i>et al.</i> 2011. <i>Genes Dev.</i> 25:1628. (WB) <a href="#">PubMed</a> 3. Doi K, <i>et al.</i> 2012. <i>Biochem Biophys Res Commun.</i> 425:107. <a href="#">PubMed</a> 4. Yamanaka, <i>et al.</i> 2003. <i>J. Immunol.</i> 170:816. (IHC)
<b>(PubMed link indicates BioLegend citation)</b>	

5. Conus S, *et al.* 2000. *EMBO J.* 19:1534. (WB, IP, ICC)

## Product Citations

1. Kachapati K, *et al.* 2013. *J Autoimmun.* 896:125. [PubMed](#)
2. Granato A, *et al.* 2014. *J Immunol.* 192:5761. [PubMed](#)
3. Wong SS, *et al.* 2021. *Cell Reports Medicine.* 2(4):100237. [PubMed](#)
4. Pyaram K, *et al.* 2019. *Cell Rep.* 27:699. [PubMed](#)

## RRID

AB\_2028387 (BioLegend Cat. No. 633505)  
AB\_2028390 (BioLegend Cat. No. 633506)

## Antigen Details

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<b>Structure</b>	Apoptosis regulator proteins, Bcl-2 family, BH1-4 domains. Homo- or hetero-dimer; isoforms $\alpha$ , $\beta$ 25 kD, 22 kD
<b>Distribution</b>	Outer mitochondrial membrane, intracellular membrane nuclear envelope, endoplasmic reticulum
<b>Function</b>	Blocks apoptotic death by controlling the mitochondrial membrane permeability. Converted to pro-apoptotic activity by cleavage of BH4 domain. Regulates cell cycle progression via ROS
<b>Modification</b>	Phosphorylation, Ubiquitination
<b>Biology Area</b>	Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Neuroscience
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Tsujimoto Y, <i>et al.</i> 1986 <i>P. Natl. Acad. Sci. USA</i> 83:5214.</li><li>2. Yang E, <i>et al.</i> 1995. <i>Cell</i> 80:285.</li><li>3. Huang Z, <i>et al.</i> 2000. <i>Oncogene</i> 19:6627.</li><li>4. Deng X, <i>et al.</i> 2003. <i>Blood.</i> 102:3179.</li></ol>
<b>Regulation</b>	Phosphorylation by ASK1/JNK1, PKC, ERKs, stress-activated kinases
<b>Gene ID</b>	<a href="#">596</a>

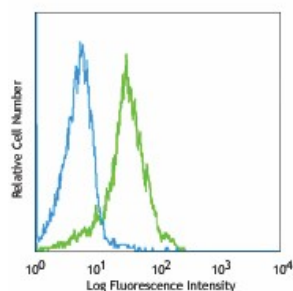
## Other Formats

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Purified anti-Bcl-2, FITC anti-Bcl-2, Alexa Fluor® 488 anti-Bcl-2, PE anti-Bcl-2, Alexa Fluor® 647 anti-Bcl-2, PE/Cyanine7 anti-Bcl-2, Direct-Blot™ HRP anti-Bcl-2

## Product Data

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C57BL/6 splenocytes intracellular stained with BCL/10C4 Alexa Fluor® 488. Cells were fixed and permeabilized with FOXP3 Fix/Perm Buffer Set.

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