

Alexa Fluor® 647 anti-Bcl-2 Antibody

Catalog# / Size	633509 / 25 µg 633510 / 100 µg
Clone	BCL/10C4
Regulatory Status	RUO
Other Names	B-cell leukemia 2
Isotype	Mouse IgG1, κ
Description	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 _L , 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

Verified Reactivity	Mouse, Rat
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	N-terminal, Amino acid residues 61-76 of mouse Bcl-2
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 1.0 µg per 10 ⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of frozen tissue ⁴ , immunocytochemical staining ⁵ , and immunoprecipitation ⁵ .
Application References	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) PubMed 3. Doi K, <i>et al.</i> 2012. <i>Biochem Biophys Res Commun.</i> 425:107. PubMed 4. Yamanaka, <i>et al.</i> 2003. <i>J. Immunol.</i> 170:816. (IHC)
(PubMed link indicates BioLegend citation)	

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

Product Citations

1. Dietmar Herndler-Brandstetter *et al.* 2018. *Immunity.* 48(4):716-729 . [PubMed](#)
2. Zhu X *et al.* 2019. *Cell reports.* 27(4):1205-1220 . [PubMed](#)
3. Bauché D *et al.* 2018. *Immunity.* 49(2):342-352 . [PubMed](#)
4. Meyer LK, *et al.* 2019. *J Clin Invest.* 130:863. [PubMed](#)
5. Jin J, *et al.* 2020. *Cell Reports.* 30(12):4124-4136. [PubMed](#)
6. Beus J, *et al.* 2013. *PLoS One.* 8:71221. [PubMed](#)
7. Nakamura M, *et al.* 2015. *J Immunol.* 194:243. [PubMed](#)
8. Wang H, *et al.* 2016. *PLoS Pathog.* 12: 1005787. [PubMed](#)
9. Su W, *et al.* 2020. *Cell Metabolism.* 32(6):996-1011.e7. [PubMed](#)
10. Huang H, *et al.* 2021. *Cell.* 184(5):1245-1261.e21. [PubMed](#)
11. Zhang H, *et al.* 2021. *Cell Reports.* 35(6):109096. [PubMed](#)

RRID

AB_2064149 (BioLegend Cat. No. 633509)
AB_2274702 (BioLegend Cat. No. 633510)

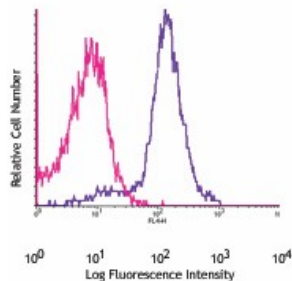
Antigen Details

Structure	Apoptosis regulator proteins, Bcl-2 family, BH1-4 domains. Homo- or hetero-dimer; isoforms α , β 25 kD, 22 kD
Distribution	Outer mitochondrial membrane, intracellular membrane nuclear envelope, endoplasmic reticulum
Function	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
Modification	Phosphorylation, Ubiquitination
Biology Area	Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Neuroscience
Antigen References	1. Tsujimoto Y, <i>et al.</i> 1986 <i>P. Natl. Acad. Sci. USA</i> 83:5214. 2. Yang E, <i>et al.</i> 1995. <i>Cell</i> 80:285. 3. Huang Z, <i>et al.</i> 2000. <i>Oncogene</i> 19:6627. 4. Deng X, <i>et al.</i> 2003. <i>Blood.</i> 102:3179.
Regulation	Phosphorylation by ASK1/JNK1, PKC, ERKs, stress-activated kinases
Gene ID	596

Other Formats

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



C57BL/6 splenocytes intracellularly stained with BCL/10C4 Alexa Fluor® 647. Cells were fixed and permeabilized with FOXP3 Fix/Perm Buffer Set.

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