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Product Data Sheet

Alexa Fluor® 647 anti-Bcl-2

Catalog # / Size: 3767545 / 25 µg
3767550 / 100 µg

Clone: BCL/10C4

Isotype: Mouse IgG1, κ

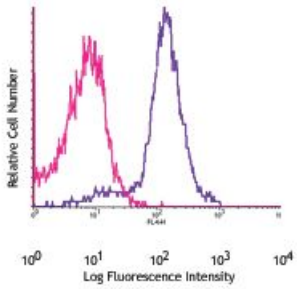
Immunogen: N-terminal, Amino acid residues 61-76 of mouse Bcl-2

Reactivity: Mouse, Rat

Preparation: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5



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

Applications:

Applications: Intracellular Staining for Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining using our nuclear factor staining protocol. 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.

Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemical staining of frozen tissue4, immunocytochemical staining5, and immunoprecipitation5.

Application References:

1. Hsu YT, *et al.* 1997. *J. Biol. Chem.* 272:13829.
2. Zuber J, *et al.* 2011. *Genes Dev.* 25:1628. (WB) PubMed
3. Doi K, *et al.* 2012. *Biochem Biophys Res Commun.* 425:107. PubMed
4. Yamanaka, *et al.* 2003. *J. Immunol.* 170:816. (IHC)
5. Conus S, *et al.* 2000. *EMBO J.* 19:1534. (WB, IP, ICC)

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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.

Antigen References:

1. Tsujimoto Y, *et al.* 1986 *P. Natl. Acad. Sci. USA* 83:5214.
2. Yang E, *et al.* 1995. Cell 80:285.
3. Huang Z, *et al.* 2000. *Oncogene* 19:6627.
4. Deng X, *et al.* 2003. *Blood*. 102:3179.

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