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Store at -20C
#2724

Bcl-w (31H4) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 18	Source/Isotype: Rabbit IgG	UniProt ID: #Q92843	Entrez-Gene Id: 599
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Bcl-w (31H4) Rabbit mAb detects endogenous levels of total Bcl-w protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding alanine 39 of Bcl-w.

Background

The Bcl-2 family consists of a number of evolutionarily conserved proteins containing Bcl-2 homology domains (BH) that regulate apoptosis through control of mitochondrial membrane permeability and release of cytochrome c (1-3). Four BH domains have been identified (BH1-4) that mediate protein interactions. The family can be separated into three groups based upon function and sequence homology: pro-survival members include Bcl-2, Bcl-xL, Mcl-1, A1 and Bcl-w; pro-apoptotic proteins include Bax, Bak and Bok; and "BH3 only" proteins Bad, Bik, Bid, Puma, Bim, Bmf, Noxa and Hrk. Interactions between death-promoting and death-suppressing Bcl-2 family members has led to a rheostat model in which the ratio of pro-apoptotic and anti-apoptotic proteins controls cell fate (4). Thus, pro-survival members exert their behavior by binding to and antagonizing death-promoting members. In general, the "BH3-only members" can bind to and antagonize the pro-survival proteins leading to increased apoptosis (5). While some redundancy of this system likely exists, tissue specificity, transcriptional and post-translational regulation of many of these family members can account for distinct physiological roles.

The pro-survival protein Bcl-w was originally identified in a PCR-based strategy aimed at discovering novel Bcl-2 family members and was found to be expressed in cells of myeloid origin, as well as many other tissues (6,7). Most tissues from *bcl-w* knockout mice were unaffected, but male mice did show defects in seminiferous tubule organization and spermatogenesis (8,9).

Background References

1. Cory, S. et al. (2003) *Oncogene* 22, 8590-607.
2. Antonsson, B. and Martinou, J.C. (2000) *Exp Cell Res* 256, 50-7.
3. Sharpe, J.C. et al. (2004) *Biochim Biophys Acta* 1644, 107-13.
4. Korsmeyer, S.J. et al. (1993) *Semin Cancer Biol* 4, 327-32.
5. Bouillet, P. and Strasser, A. (2002) *J Cell Sci* 115, 1567-74.
6. Gibson, L. et al. (1996) *Oncogene* 13, 665-75.
7. O'Reilly, L.A. et al. (2001) *Cell Death Differ* 8, 486-94.
8. Print, C.G. et al. (1998) *Proc Natl Acad Sci U S A* 95, 12424-31.
9. Ross, A.J. et al. (1998) *Nat Genet* 18, 251-6.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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