Revision 1

Store at -20C

#3869

BCL2L10 Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	23	Rabbit	#Q9HD36	10017

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

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

Specificity/Sensitivity

BCL2L10 Antibody detects endogenous levels of total BCL2L10 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro115 of human BCL2L10. Antibodies are purified by protein A and peptide affinity chromatography.

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.
Bcl-2-like 10 (BCL2L10), known as Diva or Boo in mouse (6,7) and Bcl-B in human (8), is a Bcl-2 family member with some unique properties. Expression of the mouse mRNA was detected in multiple embryonic tissues but restricted to adult ovary and testis (6,7); human Bcl-B appears to be more widely expressed (8). BCL2L10 contains BH1, 2, and 4 domains as well as a putative carboxy-terminal transmembrane domain. While some studies report the presence of a pro-apoptotic BH3 domain in BCL2L10, conflicting reports indicate an incomplete or absent BH3 domain (7-9). Similarly, some studies indicate that BCL2L10 induces apoptosis (6,9) while other data implies a role in suppressing cell death (7,8,10). BCL2L10 may function by differentially binding other Bcl-2 family members and through interaction with the apoptosome protein Apaf-1 (6,7). Despite its restricted expression in mice, Diva knockouts were fertile and exhibit no obvious developmental defects (11).

Background References

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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. Inohara, N. et al. (1998) *J Biol Chem* 273, 32479-86.
7. Song, Q. et al. (1999) *EMBO J* 18, 167-78.
8. Ke, N. et al. (2001) *J Biol Chem* 276, 12481-4.
9. Lee, R. et al. (2001) *Biochim Biophys Acta* 1520, 187-94.
10. Naumann, U. et al. (2001) *FEBS Lett* 505, 23-6.
11. Russell, H.R. et al. (2002) *Mol Cell Biol* 22, 6866-70.

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 **Mk:** Monkey

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