Revision 3

Store at -20C
#2827

Phospho-Bcl-2 (Ser70) (5H2) Rabbit mAb

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:
WB, FC-FP	H	Endogenous	28	Rabbit IgG	#P10415	596

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Flow Cytometry (Fixed/Permeabilized)	1:100 - 1:400

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

Phospho-Bcl-2 (Ser70) (5H2) Rabbit mAb detects endogenous levels of Bcl-2 only when phosphorylated at serine 70. The antibody does not cross-react with nonphosphorylated Bcl-2 at endogenous levels or with other Bcl-2 family members.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding serine 70 of human Bcl-2.

Background

Bcl-2 exerts a survival function in response to a wide range of apoptotic stimuli through inhibition of mitochondrial cytochrome c release (1). It has been implicated in modulating mitochondrial calcium homeostasis and proton flux (2). Several phosphorylation sites have been identified within Bcl-2, including Thr56, Ser70, Thr74, and Ser87 (3). It has been suggested that these phosphorylation sites may be targets of the ASK1/MKK7/JNK1 pathway and that phosphorylation of Bcl-2 may be a marker for mitotic events (4,5). Mutation of Bcl-2 at Thr56 or Ser87 inhibits its anti-apoptotic activity during glucocorticoid-induced apoptosis of T lymphocytes (6). Interleukin-3 and JNK-induced Bcl-2 phosphorylation at Ser70 may be required for its enhanced anti-apoptotic functions (7).

Background References

1. Murphy, K.M. et al. (2000) *Cell Death Differ* 7, 102-11.
2. Zhu, L. et al. (1999) *J Biol Chem* 274, 33267-73.
3. Maundrell, K. et al. (1997) *J Biol Chem* 272, 25238-42.
4. Yamamoto, K. et al. (1999) *Mol Cell Biol* 19, 8469-78.
5. Ling, Y.H. et al. (1998) *J Biol Chem* 273, 18984-91.
6. Huang, S.T. and Cidlowski, J.A. (2002) *FASEB J* 16, 825-32.
7. Deng, X. et al. (2001) *J Biol Chem* 276, 23681-8.

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

WB: Western Blotting **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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Limited Uses

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