

A1/Bfl-1 (D1A1C) Rabbit mAb

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Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 18	Source/Isotype: Rabbit IgG	UniProt ID: #Q16548	Entrez-Gene Id: 597
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

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

A1/Bfl-1 (D1A1C) Rabbit mAb recognizes endogenous levels of total A1/Bfl-1 protein. Proteins of unknown origin are detected at 50 and 130 kDa in some cell lines.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly29 of human A1/Bfl-1 protein.

Background

The Bcl-2-related protein A1 (Bfl-1, BCL2A1) is an anti-apoptotic member of the Bcl-2 family originally cloned from mouse bone marrow as a granulocyte macrophage-colony stimulating factor (GM-CSF)-inducible gene (1). Expression of A1/Bfl-1 is primarily restricted to hematopoietic cells, although it has been detected in some non-hematopoietic tissues including lung and in endothelial cells (1,2). A1/Bfl-1 protein is rapidly induced by NF-κB and is elevated in response to a variety of factors that stimulate this pathway, including TNF-α and IL-1β, CD40, phorbol ester, and LPS (2-4). As with other Bcl-2 family proteins, A1/Bfl-1 functions by binding and antagonizing pro-apoptotic members of the family (Bid, Bim), which inhibits release of mitochondrial cytochrome c (5). In contrast, research studies indicate that the enzyme calpain cleaves A1/Bfl-1 at specific sites within the amino-terminal region, creating pro-apoptotic, carboxy-terminal fragments that promote mitochondrial release of cytochrome c and apoptosis (6). Studies suggest a possible therapeutic strategy of targeting apoptosis through use of the specific A1/Bfl-1 cleavage fragments (7).

Background References

1. Lin, E.Y. et al. (1993) *J Immunol* 151, 1979-88.
2. Karsan, A. et al. (1996) *Blood* 87, 3089-96.
3. Lee, H.H. et al. (1999) *Proc Natl Acad Sci USA* 96, 9136-41.
4. Zong, W.X. et al. (1999) *Genes Dev* 13, 382-7.
5. Werner, A.B. et al. (2002) *J Biol Chem* 277, 22781-8.
6. Kucharczak, J.F. et al. (2005) *Cell Death Differ* 12, 1225-39.
7. Valero, J.G. et al. (2012) *PLoS One* 7, e38620.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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