Revision 3

#14093 Store at -20C

A1/Bfl-1 (D1A1C) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355) orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	18	Rabbit IgG	#Q16548	597

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	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

WB: Western Blotting **IP:** Immunoprecipitation

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

Trademarks and Patents

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.