

Technical Data Sheet

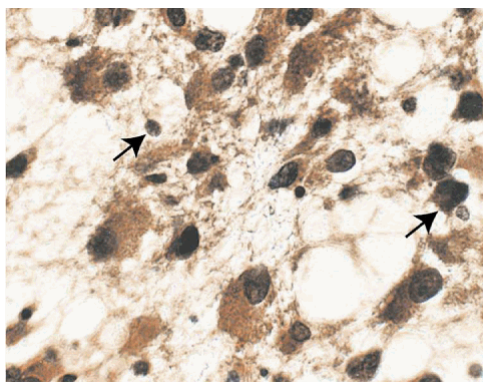
Serum Rabbit Anti-Bcl-X

Product Information

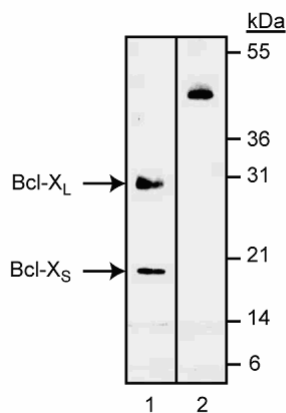
Material Number:	556361
Size:	0.1 ml
Clone:	Polyclonal
Immunogen:	Human Bcl-X aa. 46-66 synthetic peptide
Isotype:	Rabbit Ig
Reactivity:	QC Testing: Human Reported: Mouse
Target MW:	17, 25-29 kDa
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide and $\leq 0.03\%$ thimerosal

Description

Members of the Bcl-2 family play a major role in regulating the response of cells to a wide variety of apoptotic signals. The first member of this multifamily, Bcl-2, was discovered in the mid 1980s through its involvement in t(14;18) chromosomal translocations commonly found in a subset of follicular B-cell lymphomas. Bcl-2 blocks apoptosis, and translocation of Bcl-2 sequences from chromosome 18 onto the transcriptionally active immunoglobulin locus at chromosome band 14q32 in B cells deregulates Bcl-2 gene expression, resulting in high levels of Bcl-2 mRNA and protein expression. Deregulation of the Bcl-2 gene, by translocations or other mechanisms, appears to contribute to tumorigenesis by prolonging cell survival rather than by accelerating the rate of cell proliferation. A variety of Bcl-2 homologues have since been described in humans and other mammals, leading to the definition of a multigene family. Like Bcl-2, some Bcl-2 family members block apoptosis, whereas others promote apoptosis and inhibit Bcl-2 activity. Bcl-X is a Bcl-2 homologue that has two isoforms, resulting from alternative splicing. Bcl-X-L (long) is a 241 amino acid protein that is 47% homologous to Bcl-2 on the amino acid level. Bcl-X-S (short) is a 178 amino acid protein lacking a 63 amino acid domain that is well conserved among members of the Bcl-2 protein family. bcl-X-L blocks cell death, whereas Bcl-X-S inhibits Bcl-2 and promotes cell death. The antibodies recognize both mouse and human Bcl-X-L (long) and Bcl-X-S (short) proteins. A synthetic peptide corresponding to amino acids 46-66 of human Bcl-X was used as immunogen. This region corresponds to a unique domain that lacks homology with other known members of the Bcl-2 family.



Anti-Bcl-X, Cat. No. 556361. Paraffin-embedded tissue section of a high grade human astrocytoma stained with polyclonal anti-Bcl-X using a DAB chromogen and Hematoxylin counterstain.



Western blot analysis of Bcl-X in HeLa cell lysate. Lane 1, anti-Bcl-X (Cat. No. 556361). Lane 2, normal rabbit serum. The antibodies identify both the long (Bcl-X_L; 26 kDa) and short (Bcl-X_S; 17 kDa) forms of the protein (lane 1).

Preparation and Storage

The polyclonal antibody was purified from antiserum by affinity chromatography. Store undiluted at 4°C.

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Application Notes

Application

Western blot	Routinely Tested
Immunohistochemistry-formalin (antigen retrieval required)	Tested During Development
Immunohistochemistry-frozen	Tested During Development
Immunohistochemistry-paraffin	Tested During Development

Recommended Assay Procedure:

Applications include western blot analysis (1:1000 - 1:2000), and immunohistochemical staining (1:500 - 1:2000) of frozen tissue sections and of formalin-fixed or Bouin's-fixed, paraffin-embedded tissue sections.

Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
611449	HeLa Cell Lysate	500 µg	(none)
554021	HRP Goat Anti-Rabbit Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. This product contains thimerosal, an organic mercury compound. Mercury and mercury compounds are chemicals known to the State of California to cause birth defects or other reproductive harm. Foreseeable use of this product does not pose a known reproductive toxicity threat.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Alexander-Miller MA, Derby MA, Sarin A, Henkart PA, Berzofsky JA. Supraoptimal peptide-major histocompatibility complex causes a decrease in bc1-2 levels and allows tumor necrosis factor alpha receptor II-mediated apoptosis of cytotoxic T lymphocytes. *J Exp Med.* 1998; 188(8):1391-1399.(Biology)
Krajewski S, Krajewska M, Shabaik A, et al. Immunohistochemical analysis of in vivo patterns of Bcl-X expression. *Cancer Res.* 1994; 54(21):5501-5507.(Biology)
Ohta K, Iwai K, Kasahara Y, et al. Immunoblot analysis of cellular expression of Bcl-2 family proteins, Bcl-2, Bax, Bcl-X and Mcl-1, in human peripheral blood and lymphoid tissues. *Int Immunol.* 1995; 7(11):1817-1825.(Biology)
Reed JC, Miyashita T, Krajewski S, et al. Bcl-2 family proteins and the regulation of programmed cell death in leukemia and lymphoma. *Cancer Treat Res.* 1996; 84:31-72.(Biology)