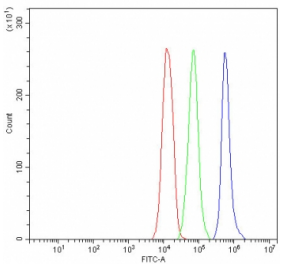
Bcl-XL Antibody / Anti-Apoptotic Protein Antibody (R32762)

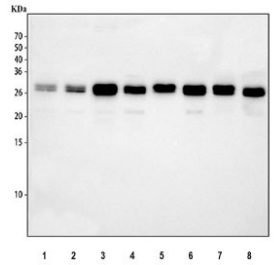
Catalog No.	Formulation	Size
R32762	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

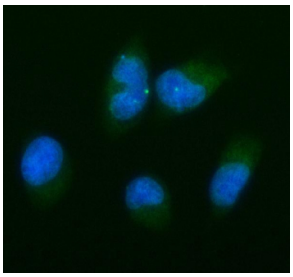
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q07817
Localization	Cytoplasmic, membranous
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Immunoprecipitation: 2ug per 500ug of lysate
Limitations	This Bcl-XL Antibody / Anti-Apoptotic Protein Antibody is available for research use only.



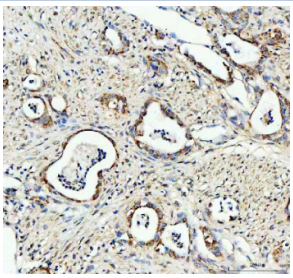
Bcl-XL Antibody FACS. Flow cytometry analysis of fixed and permeabilized human Jurkat cells using Bcl-XL Antibody / Anti-Apoptotic Protein Antibody demonstrates a pronounced rightward shift of the antibody-stained population (blue) relative to both the isotype control (green) and unstained cells (red), consistent with intracellular expression of Bcl-XL. Bcl-XL, encoded by the BCL2L1 gene, is a key anti-apoptotic member of the BCL2 protein family that promotes cellular survival by inhibiting mitochondrial apoptosis pathways and suppressing activation of pro-apoptotic signaling proteins. The observed staining pattern supports detection of Bcl-XL expression in Jurkat cells by flow cytometry. Cells were fixed, permeabilized, and stained with Bcl-XL antibody at 1 ug/million cells following blocking with goat sera. Red = cells alone, Green = isotype control, Blue = Bcl-XL antibody.



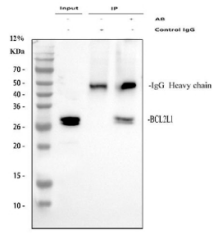
Bcl-XL Antibody WB. Western blot analysis of human Jurkat (lane 1), HeLa (lane 2), A549 (lane 3), and Raji (lane 4) cell lysates, as well as rat brain (lane 5), rat C6 (lane 6), mouse brain (lane 7), and mouse NIH 3T3 (lane 8) lysates using Bcl-XL Antibody / Anti-Apoptotic Protein Antibody demonstrates a distinct immunoreactive band at approximately 26-30 kDa across human, rat, and mouse samples. The detected band is consistent with expression of Bcl-XL, the major anti-apoptotic isoform encoded by the BCL2L1 gene. Bcl-XL functions at the outer mitochondrial membrane where it inhibits apoptosis by suppressing activation of pro-apoptotic BCL2 family proteins and preventing cytochrome c release. The broad cross-species reactivity observed supports the conserved role of Bcl-XL in regulating cell survival and mitochondrial integrity. Antibody concentration: 0.5 ug/ml. Predicted molecular weight: 26-30 kDa.



Bcl-XL Antibody IF. Immunofluorescent staining of FFPE human TPC-1 cells using Bcl-XL Antibody / Anti-Apoptotic Protein Antibody demonstrates diffuse cytoplasmic green fluorescence consistent with expression of Bcl-XL, the major anti-apoptotic protein encoded by the BCL2L1 gene. The staining pattern is compatible with the known intracellular localization of Bcl-XL, which functions primarily at mitochondrial and intracellular membrane compartments to suppress apoptosis and promote cellular survival. Bcl-XL plays a critical role in regulating mitochondrial integrity, inhibiting pro-apoptotic signaling pathways, and maintaining resistance to programmed cell death. Nuclei are counterstained with DAPI (blue). HIER was performed by steaming sections in pH 6 citrate buffer for 20 minutes prior to immunofluorescent staining.



Bcl-XL Antibody Pancreatic Cancer IHC. Immunohistochemistry staining of FFPE human pancreatic cancer tissue using Bcl-XL Antibody / Anti-Apoptotic Protein Antibody demonstrates cytoplasmic and membranous HRP-DAB brown staining within malignant epithelial cells forming glandular tumor structures. The staining pattern is consistent with expression of Bcl-XL, the major anti-apoptotic protein encoded by the BCL2L1 gene. Bcl-XL functions as a key regulator of mitochondrial apoptosis by inhibiting pro-apoptotic BCL2 family members and promoting cellular survival under conditions of stress. Expression of Bcl-XL is frequently investigated in cancer biology due to its association with tumor cell survival, apoptosis resistance, and therapeutic response. HIER was performed by boiling tissue sections in pH 8 EDTA buffer for 20 minutes followed by cooling prior to immunostaining. HRP-conjugated secondary antibody and DAB chromogen were used for signal detection.



Bcl-XL Antibody IP. Immunoprecipitation analysis of Bcl-XL from human A549 whole cell lysate using Bcl-XL Antibody / Anti-Apoptotic Protein Antibody demonstrates specific enrichment of BCL2L1 following antibody-mediated pull-down. Bcl-XL is detected as a distinct band at approximately 26-30 kDa in the immunoprecipitated sample, consistent with the expected molecular weight of the major anti-apoptotic BCL2L1 isoform. The result confirms specific recognition and capture of endogenous Bcl-XL protein from cellular lysates. Bcl-XL functions as a key regulator of mitochondrial apoptosis, promoting cell survival through inhibition of pro-apoptotic BCL2 family members and preservation of mitochondrial integrity. Immunoprecipitation was performed using 2 ug of Bcl-XL antibody and 500 ug of human A549 whole cell lysate. The IgG heavy chain is visible at approximately 50 kDa.

Description

Bcl-XL Antibody / Anti-Apoptotic Protein Antibody detects Bcl-XL, the major anti-apoptotic protein encoded by the BCL2L1 gene and a key member of the BCL2 family of apoptosis regulators. Bcl-XL promotes cellular survival by inhibiting programmed cell death pathways and preserving mitochondrial integrity under physiological and stress-associated conditions. Through its ability to suppress activation of pro-apoptotic signaling proteins, Bcl-XL plays an

essential role in tissue homeostasis, embryonic development, immune cell survival, and maintenance of long-lived cell populations. Bcl-XL Antibody is widely used for studies of apoptosis regulation, mitochondrial biology, and cellular survival signaling.

Bcl-XL functions primarily at the outer mitochondrial membrane, where it binds and neutralizes pro-apoptotic BCL2 family members including BAX and BAK. This activity prevents mitochondrial outer membrane permeabilization, inhibits cytochrome c release, and blocks activation of downstream caspase-dependent cell death pathways. Through these mechanisms, Bcl-XL serves as a critical checkpoint that regulates the balance between cellular survival and apoptosis in response to developmental cues, growth factor availability, and environmental stress.

Expression of Bcl-XL is observed in numerous tissues and cell types, particularly those requiring prolonged survival or resistance to apoptotic stimuli. The protein contributes to the maintenance of neuronal populations, hematopoietic cells, epithelial tissues, and other cellular compartments where regulation of programmed cell death is essential for normal function. Because apoptosis plays a fundamental role in development and tissue maintenance, Bcl-XL has become an important marker for studies of cellular viability and stress responses.

Altered Bcl-XL expression has been associated with numerous pathological conditions, including cancer, neurodegenerative disorders, immune dysregulation, and treatment resistance. Elevated Bcl-XL levels may promote survival of malignant cells by suppressing apoptosis, while reduced expression can increase susceptibility to cell death following injury or cellular stress. Researchers frequently utilize Bcl-XL Antibody to investigate mechanisms of apoptosis resistance, tumor progression, therapeutic response, and disease-associated alterations in cell survival pathways.

Beyond its role in apoptosis regulation, Bcl-XL has been implicated in mitochondrial function, cellular metabolism, autophagy, and adaptation to physiological stress. These diverse activities highlight the broader importance of Bcl-XL in maintaining cellular fitness and regulating responses to changing environmental conditions. The central position of Bcl-XL within survival signaling networks has made it a major focus of both basic research and therapeutic development efforts.

Bcl-XL Antibody / Anti-Apoptotic Protein Antibody is useful for researchers studying apoptosis, mitochondrial biology, cancer progression, therapeutic resistance, cell survival signaling, neurobiology, immunology, and tissue homeostasis. Validation may include immunohistochemistry, western blotting, immunofluorescence, flow cytometry, ELISA, and related protein expression applications when supported by experimental data.

Explore our Cancer Antibodies page for additional markers involved in apoptosis regulation, tumor cell survival, therapeutic resistance, and cancer-associated signaling pathways.

Application Notes

Optimal dilution of the Bcl-XL Antibody / Anti-Apoptotic Protein Antibody should be determined by the researcher.

Immunogen

Amino acids M1-T219 from the human protein were used as the immunogen for the Bcl-XL antibody.

Storage

After reconstitution, the Bcl-XL antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Bcl-XL Antibody, BCL2L1 Antibody, BCL-XL Antibody, BCL-X Long Antibody, Anti-Apoptotic Protein Antibody, Mitochondrial Survival Protein Antibody

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