

## Anti-Bcl-XL/BCL2L1 Antibody Picoband®

Catalog Number: A00181

### About BCL2L1

Bcl-2-like protein 1, also known as Bcl-XL, is a protein that in humans is encoded by the BCL2L1 gene. The protein encoded by this gene belongs to the BCL-2 protein family. BCL-2 family members form hetero- or homodimers and act as anti- or pro-apoptotic regulators that are involved in a wide variety of cellular activities. The proteins encoded by this gene are located at the outer mitochondrial membrane, and have been shown to regulate outer mitochondrial membrane channel (VDAC) opening. VDAC regulates mitochondrial membrane potential, and thus controls the production of reactive oxygen species and release of cytochrome C by mitochondria, both of which are the potent inducers of cell apoptosis. Alternative splicing results in multiple transcript variants encoding two different isoforms. The longer isoform (Bcl-xL) acts as an apoptotic inhibitor and the shorter form (Bcl-xS) acts as an apoptotic activator.

### Overview

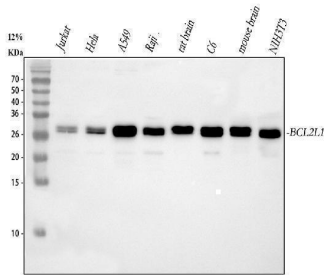
Product Name	Anti-Bcl-XL/BCL2L1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Bcl-XL/BCL2L1 Antibody Picoband® catalog # A00181. Tested in Flow Cytometry, IP, ICC/IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IP, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q07817

### Technical Details

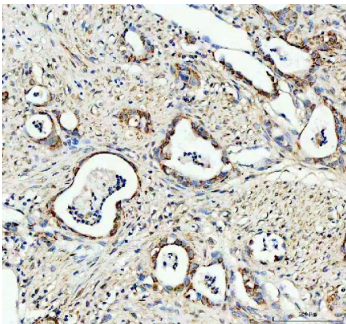
Immunogen	E.coli-derived human Bcl-XL recombinant protein (Position: M1-T219). Human Bcl-XL shares 97.9% amino acid (aa) sequence identity with both mouse and rat Bcl-XL.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry(Fixed), 1-3ug/1x10 <sup>6</sup> cells, Human

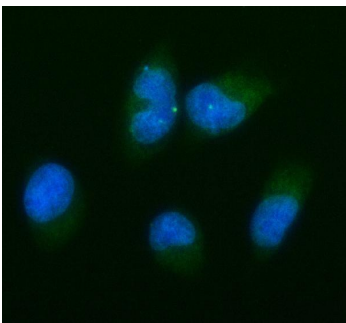
## Anti-Bcl-XL/BCL2L1 Antibody Picoband® (A00181) Images



Western blot analysis of Bcl-XL using anti-Bcl-XL antibody (A00181). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: human Raji whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat C6 whole cell lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Bcl-XL antigen affinity purified polyclonal antibody (Catalog # A00181) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Bcl-XL at approximately 26-30 kDa. The expected band size for Bcl-XL is at 26 kDa.

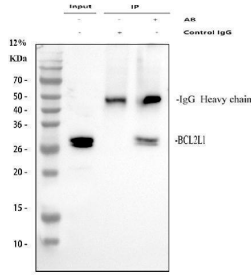


IHC analysis of Bcl-XL using anti-Bcl-XL antibody (A00181). Bcl-XL was detected in a paraffin-embedded section of human pancreas cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Bcl-XL Antibody (A00181) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

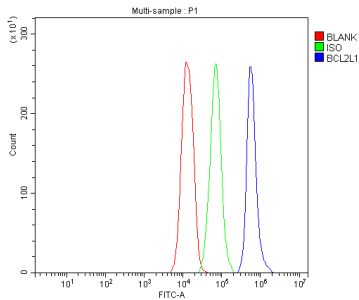


IF analysis of Bcl-XL using anti-Bcl-XL antibody (A00181). Bcl-XL was detected in an immunocytochemical section of TPC-1 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-Bcl-XL Antibody (A00181) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Immunoprecipitating (IP) Bcl-XL in A549 whole cell lysate. Western blot analysis of Bcl-XL using anti-Bcl-XL antibody (A00181); Lane 1: A549 whole cell lysates (30ug); Lane 2:



Rabbit control IgG instead of anti-Bcl-XL antibody in A549 whole cell lysate; Lane 3: anti-Bcl-XL antibody (2ug) + A549 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Bcl-XL antigen affinity purified polyclonal antibody (A00181) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for Bcl-XL at approximately 26-30 kDa. The expected band size for Bcl-XL is at 26 kDa.



Flow Cytometry analysis of Jurkat cells using anti-Bcl-XL antibody (A00181). Overlay histogram showing Jurkat cells stained with A00181 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Bcl-XL Antibody (A00181, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

## 6 Publications Citing This Product

1. PubMed ID: 33382670, Chen H, Sheng H, Zhao Y, Zhu G. Piperine Inhibits Cell Proliferation and Induces Apoptosis of Human Gastric Cancer Cells by Downregulating Phosphatidylinositol 3-Kinase (PI3K)/Akt Pathway. Med Sci Monit. 2020 Dec 31;26:e928403. doi:10.12659/MSM.928403. PMID:33382
2. PubMed ID: 12439908, Relationship between Egr-1 gene expression and apoptosis in esophageal carcinoma and precancerous lesions
3. PubMed ID: 28731164, Guo X, Guo N, Zhao J, Cai Y. Oncol Rep. 2017 Sep;38(3):1442-1450. doi: 10.3892/or.2017.5829. Epub 2017 Jul 18. Active targeting co-delivery system based on hollow mesoporous silica nanoparticles for antitumor therapy in ovarian cancer stem-like cells

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