

Anti-Apoptosis regulator BAX Bax Antibody

Catalog Number: PA1013-1

About BAX

Apoptosis regulator BAX, also known as bcl-2-like protein 4, is a protein that in humans is encoded by the BAX gene. The protein encoded by this gene belongs to the BCL2 protein family. BCL2 family members form hetero- or homodimers and act as anti- or pro-apoptotic regulators that are involved in a wide variety of cellular activities. This protein forms a heterodimer with BCL2, and functions as an apoptotic activator. Additionally, this protein is reported to interact with, and increase the opening of, the mitochondrial voltage-dependent anion channel (VDAC), which leads to the loss in membrane potential and the release of cytochrome c. The expression of this gene is regulated by the tumor suppressor P53 and has been shown to be involved in P53-mediated apoptosis. Multiple alternatively spliced transcript variants, which encode different isoforms, have been reported for this gene.

Overview

Product Name	Anti-Apoptosis regulator BAX Bax Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Apoptosis regulator BAX Bax Antibody catalog # PA1013-1. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.01mg NaN ₃ .
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	Q07812

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Bax, different from the related mouse and rat sequences by one amino acid.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p> <p>Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, By Heat</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Human</p>

Anti-Apoptosis regulator BAX Bax Antibody (PA1013-1) Images

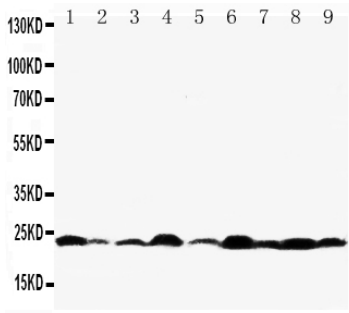


Figure 1. Western blot analysis of Bax using anti-Bax antibody (PA1013-1).

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 50ug of sample under reducing conditions.

- Lane 1: Rat Testis Tissue Lysate
- Lane 2: Rat Kidney Tissue Lysate
- Lane 3: Rat Brain Tissue Lysate
- Lane 4: Rat Ovary Tissue Lysate
- Lane 5: HELA Cell Lysate
- Lane 6: MM231 Cell Lysate
- Lane 7: A549 Cell Lysate
- Lane 8: JURKAT Cell Lysate
- Lane 9: Human Placenta Tissue Lysate

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Bax antigen affinity purified polyclonal antibody (Catalog # PA1013-1) 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 1:10000 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 Bax at approximately 21&28KD. The expected band size for Bax is at 21KD.

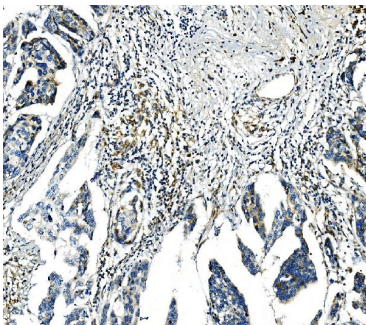


Figure 2. IHC analysis of Bax using anti-Bax antibody (PA1013-1).

Bax was detected in a paraffin-embedded section of human ovarian 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-Bax Antibody (PA1013-1) 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.

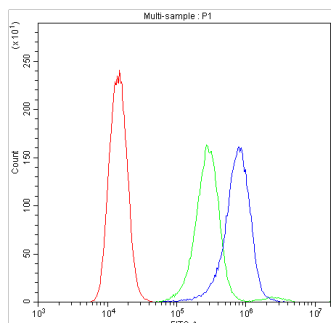


Figure 3. Flow Cytometry analysis of A431 cells using anti-BAX antibody (PA1013-1).

Overlay histogram showing A431 cells stained with PA1013-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-BAX Antibody (PA1013-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions.

Unlabelled sample (Red line) was also used as a control.

128 Publications Citing This Product

1. PubMed ID: 31424657, Meng K, Yuan G, Bao H, Wang L, Ma R, Yu B, Zhao S. Interaction of HCCR-1 and Bax in breast cancer. *J BUON*. 2019 May-Jun;24(3):1027-1037. PMID:31424657.

2. PubMed ID: -, Su-Su Tang, Yi Ren, Xiao-Qian Ren, Jing-Ran Cao, Hao Hong, Hui Ji, Qing-Hua Hu, ERalpha and/or ERbeta activation ameliorates cognitive impairment, neurogenesis and apoptosis in type 2 diabetes mellitus mice, *Experimental Neurology*, Volume 311, 2019, Pages 33-43, ISSN 0014-4886, <https://doi.org/10.1016/j.expneurol.2018.09.002>.

3. PubMed ID: 31920915, Ren Q, Hu Z, Jiang Y, Tan X, Botchway BOA, Amin N, Lin G, Geng Y, Fang M. SIRT1 Protects Against Apoptosis by Promoting Autophagy in the Oxygen Glucose Deprivation/Reperfusion-Induced Injury. *Front Neurol*. 2019 Dec 5;10:1289. doi:10.3389/fneur.2019.01289. PMID:31920915; PMCID:PMC6915092.

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