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antibody and ELISA experts

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Anti-BAK/BAK1 Antibody

Catalog Number: PA1437

About BAK1

BAK, officially called Bcl2 antagonist killer, is a protein that in humans, encoded by the BAK gene.The BAK protein is a pro-apoptotic member of the Bcl-2 gene family which is involved in initiating apoptosis. BAK gene spans 7.6 kb and contains 6 exons.By Southern blot analysis of genomic DNA from human/rodent somatic cell hybrids, BAK gene is localized to chromosome 6.This protein localizes to mitochondria, and functions to induce apoptosis. It interacts with and accelerates the opening of the mitochondrial voltage-dependent anion channel, which leads to a loss in membrane potential and the release of cytochrome. This protein also interacts with the tumor suppressor P53 after exposure to cell stress.

Overview

Product Name	Anti-BAK/BAK1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-BAK/BAK1 Antibody catalog # PA1437. Tested in IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
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	Q16611

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human BAK1, 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) and ICC.
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.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Rat Immunocytochemistry/Immunofluorescence , 5ug/ml, Human

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Anti-BAK/BAK1 Antibody (PA1437) Images

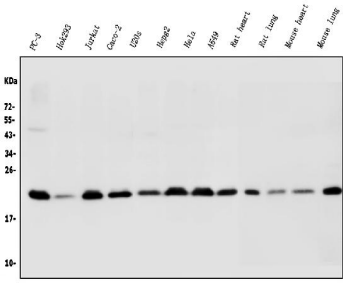

Figure 1. Western blot analysis of BAK/BAK1 using anti-BAK/BAK1 antibody (PA1437).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human PC-3 whole cell lysates,
Lane 2: human HEK293 whole cell lysates,
Lane 3: human Jurkat whole cell lysates,
Lane 4: human CACO-2 whole cell lysates,
Lane 5: human U20S whole cell lysates,
Lane 6: human HEPG2 whole cell lysates,
Lane 7: human HELA whole cell lysates,
Lane 8: human A549 whole cell lysates,
Lane 9: rat heart tissue lysates,
Lane 10: rat lung tissue lysates,
Lane 11: mouse heart tissue lysates,
Lane 12: mouse lung tissue lysates.
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-BAK/BAK1 antigen affinity purified polyclonal antibody (Catalog # PA1437) 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 BAK/BAK1 at approximately 23KD. The expected band size for BAK/BAK1 is at 23KD.

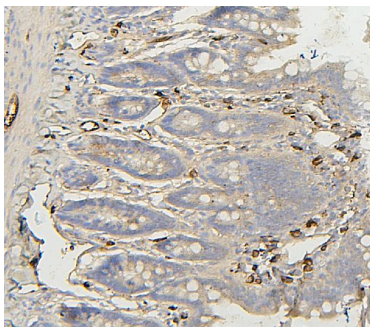

Figure 2. IHC analysis of BAK/BAK1 using anti-BAK/BAK1 antibody (PA1437).
BAK/BAK1 was detected in paraffin-embedded section of rat intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-BAK/BAK1 Antibody (PA1437) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 3. IHC analysis of BAK/BAK1 using anti-BAK/BAK1 antibody (PA1437).
BAK/BAK1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with

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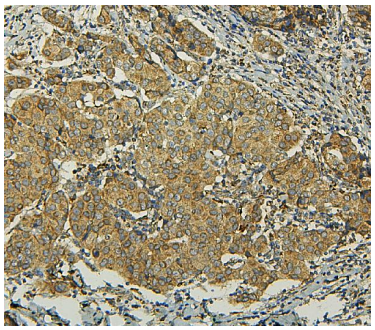

2ug/ml rabbit anti-BAK/BAK1 Antibody (PA1437) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

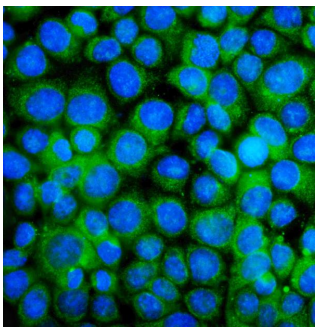

Figure 4. IF analysis of BAK/BAK1 using anti-BAK/BAK1 antibody (PA1437).
BAK/BAK1 was detected in immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-BAK/BAK1 Antibody (PA1437) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 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.