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Anti-VDAC3 Antibody Picoband®

Catalog Number: A04802-2

About VDAC3

Voltage-dependent anion-selective channel protein 3 (VDAC3) is a protein that in humans is encoded by the VDAC3 gene on chromosome 8. This gene encodes a voltage-dependent anion channel (VDAC), and belongs to the mitochondrial porin family. VDACs are small, integral membrane proteins that traverse the outer mitochondrial membrane and conduct ATP and other small metabolites. They are known to bind several kinases of intermediary metabolism, thought to be involved in translocation of adenine nucleotides, and are hypothesized to form part of the mitochondrial permeability transition pore, which results in the release of cytochrome c at the onset of apoptotic cell death. Alternatively transcript variants encoding different isoforms have been described for this gene.

Overview

Product Name	Anti-VDAC3 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-VDAC3 Antibody Picoband® catalog # A04802-2. Tested in ELISA, Flow Cytometry, 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	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg 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	Q9Y277

Technical Details

Immunogen	E.coli-derived human VDAC3 recombinant protein (Position: T83-E147).
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

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, -

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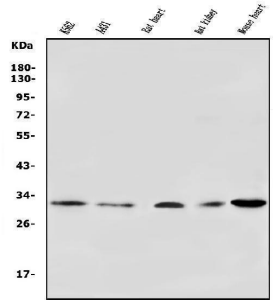
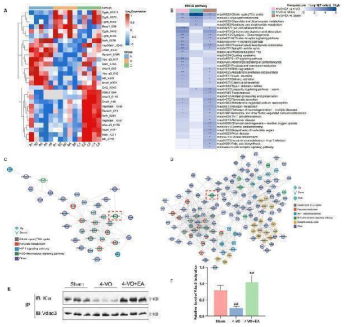
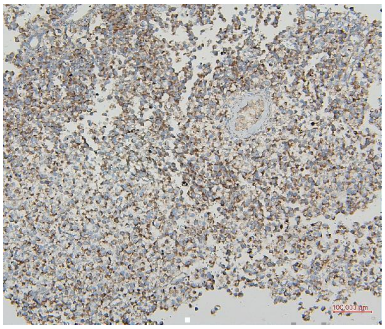
Anti-VDAC3 Antibody Picoband® (A04802-2) Images



Western blot analysis of VDAC3 using anti-VDAC3 antibody (A04802-2). 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 K562 whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: rat heart tissue lysates, Lane 4: rat kidney tissue lysates, Lane 5: mouse heart 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-VDAC3 antigen affinity purified polyclonal antibody (Catalog # A04802-2) 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 VDAC3 at approximately 31KD. The expected band size for VDAC3 is at 31KD.



KEGG pathway clustering analysis of different comparison groups, the PPI network of differentially lactylated proteins in the pathways of interest, and verification of Vdac3 protein lactylation modifications. (A) Heatmap of lactylation sites for 12 key proteins. Each row represents a differentially modification site; each column represents a sample. Red indicates a high-level modification, blue indicates a low-level modification, and grey indicates sites that cannot be quantified in the corresponding samples. (B) The horizontal axis depicts different comparison groups, whereas the vertical axis indicates the enriched KEGG pathways. The colored blocks represent the functional descriptions of differentially expressed modified proteins enriched in each comparison group. Blue signifies high enrichment significance, whereas blue-white signifies low enrichment significance. * p



IHC analysis of VDAC3 using anti-VDAC3 antibody (A04802-2). VDAC3 was detected in paraffin-embedded section of human testis 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 2ug/ml rabbit anti-VDAC3 Antibody (A04802-2) 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.

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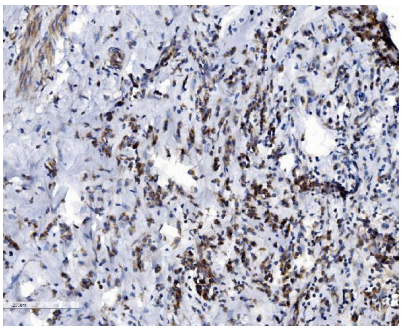
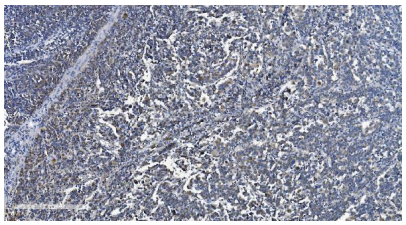
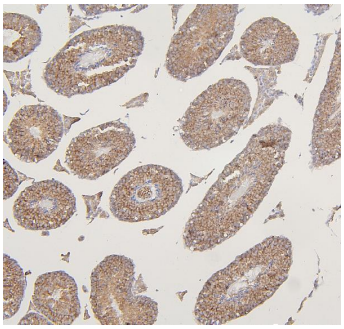


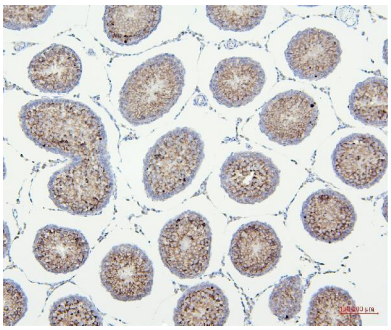
IHC analysis of VDAC3 using anti-VDAC3 antibody (A04802-2). VDAC3 was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-VDAC3 Antibody (A04802-2) 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.



IHC analysis of VDAC3 using anti-VDAC3 antibody (A04802-2). VDAC3 was detected in paraffin-embedded section of human melanoma 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-VDAC3 Antibody (A04802-2) 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.



IHC analysis of VDAC3 using anti-VDAC3 antibody (A04802-2). VDAC3 was detected in paraffin-embedded section of mouse testis 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-VDAC3 Antibody (A04802-2) 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.



IHC analysis of VDAC3 using anti-VDAC3 antibody (A04802-2). VDAC3 was detected in paraffin-embedded section of rat testis 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-VDAC3 Antibody (A04802-2) 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.

Flow Cytometry analysis of U20S cells using anti-VDAC3 antibody (A04802-2). Overlay histogram showing U20S cells stained with A04802-2 (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-VDAC3 Antibody (A04802-2, 1ug/1x106

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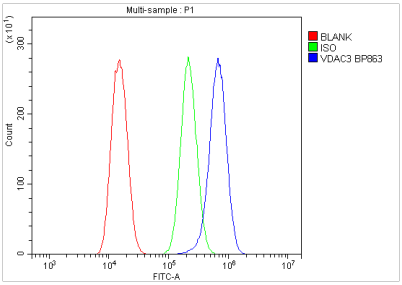

cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-VDAC3 Antibody

For Research Use Only. Not for use in diagnostic procedures.