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antibody and ELISA experts

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Anti-Histone deacetylase 3 HDAC3 Antibody

Catalog Number: PA1600-1

About HDAC3

HDAC3 (HISTONE DEACETYLASE 3) is a member of the histone deacetylase/acuc/apha family of proteins that is an enzyme that in humans is encoded by the HDAC3 gene. The HDAC3 gene is mapped to 5q31.3. HDAC3 has histone deacetylase activity and represses transcription when tethered to a promoter. It may participate in the regulation of transcription through its binding with the zinc-finger transcription factor YY1. The protein can also down-regulate p53 function and thus modulate cell growth and apoptosis. And this gene is regarded as a potential tumor suppressor gene. HDAC3 has an open reading frame of 428 amino acids and shares 53% amino acid identity with HDAC1 and 52% with HDAC2. The catalytic domain of HDAC4 interacts with HDAC3 via the transcriptional corepressor NCOR2. All experimental conditions leading to the suppression of HDAC4 binding to NCOR2 and to HDAC3 resulted in loss of enzymatic activity associated with HDAC4. HDAC3 recruitment to the genome displays a circadian rhythm in mouse liver.

Overview

Product Name	Anti-Histone deacetylase 3 HDAC3 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Histone deacetylase 3 HDAC3 Antibody catalog # PA1600-1. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, IHC-F, 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	O15379

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human HDAC3, identical to the related rat and mouse sequences.
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), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins

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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	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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human, Mouse, Rat Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-Histone deacetylase 3 HDAC3 Antibody (PA1600-1) Images

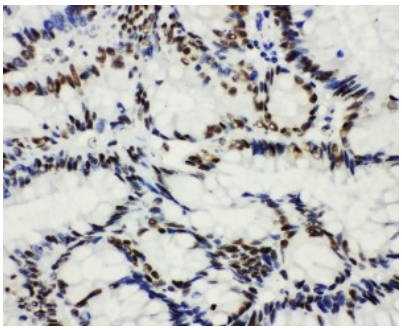

Figure 1. IHC analysis of HDAC3 using anti-HDAC3 antibody (PA1600-1).
HDAC3 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-HDAC3 Antibody (PA1600-1) 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.

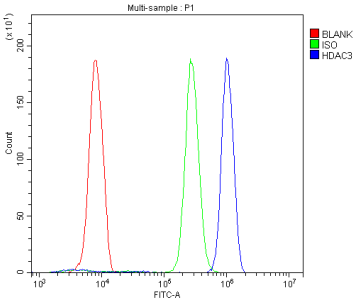

Figure 10. Flow Cytometry analysis of U937cells using anti-HDAC3 antibody (PA1600-1).
Overlay histogram showing U937 cells stained with PA1600-1 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HDAC3 Antibody (PA1600-1, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

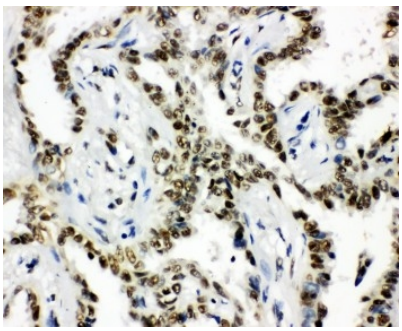

Figure 2. IHC analysis of HDAC3 using anti-HDAC3 antibody (PA1600-1).
HDAC3 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-HDAC3 Antibody (PA1600-1) 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.

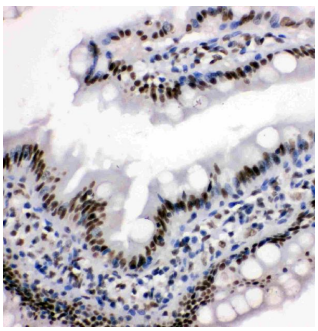

Figure 3. IHC analysis of HDAC3 using anti-HDAC3 antibody (PA1600-1).
HDAC3 was detected in paraffin-embedded section of Rat Intestine tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-HDAC3 Antibody (PA1600-1) 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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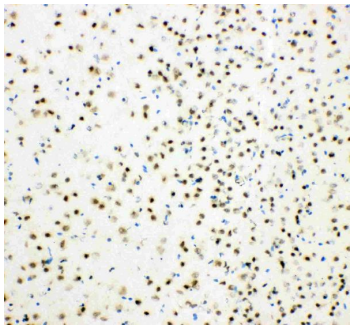

Figure 4. IHC analysis of HDAC3 using anti-HDAC3 antibody (PA1600-1).
HDAC3 was detected in frozen section of Mouse Brain tissues. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-HDAC3 Antibody (PA1600-1) overnight at 4°C. Biotinylated 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.

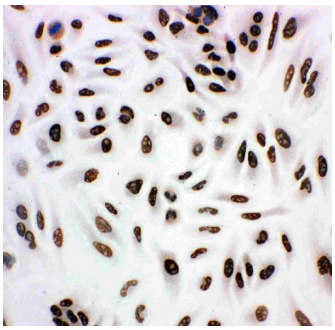

Figure 5. IHC analysis of HDAC3 using anti-HDAC3 antibody (PA1600-1).
HDAC3 was detected in immunocytochemical section of A549 Cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1ug/ml rabbit anti-HDAC3 Antibody (PA1600-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

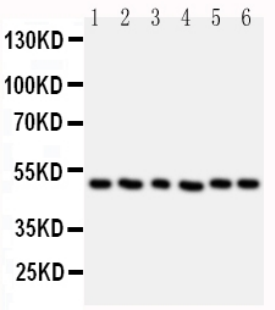

Figure 6. Western blot analysis of HDAC3 using anti-HDAC3 antibody (PA1600-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: Rat Stomach Tissue Lysate
Lane 2: Rat Testis Tissue Lysate
Lane 3: MCF-7 Cell Lysate
Lane 4: HELA Cell Lysate
Lane 5: JURKAT Cell Lysate
Lane 6: SKOV Cell 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-HDAC3 antigen affinity purified polyclonal antibody (Catalog # PA1600-1) 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.

Figure 7. IF analysis of HDAC3 using anti-HDAC3 antibody (PA1600-1).
HDAC3 was detected in immunocytochemical section of U20S cell. 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 2ug/mL rabbit anti-HDAC3 Antibody

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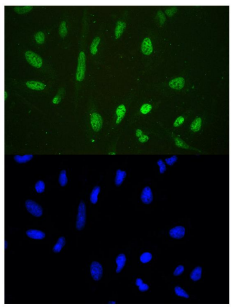

(PA1600-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

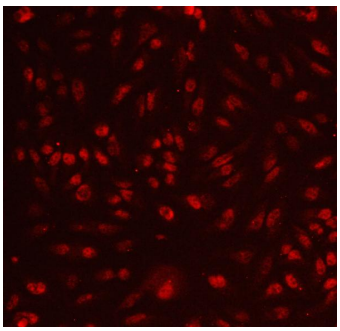

Figure 8. IF analysis of HDAC3 using anti-HDAC3 antibody (PA1600-1).
HDAC3 was detected in immunocytochemical section of Hela cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-HDAC3 Antibody (PA1600-1) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

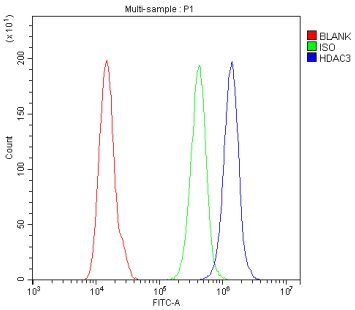

Figure 9. Flow Cytometry analysis of A431 cells using anti-HDAC3 antibody (PA1600-1).
Overlay histogram showing A431 cells stained with PA1600-1 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HDAC3 Antibody (PA1600-1,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

2 Publications Citing This Product

1. PubMed ID: 19737385, Mitochondrial BNIP3 upregulation precedes endonuclease G translocation in hippocampal neuronal death following oxygen-glucose deprivation

2. PubMed ID: 26292095, Interleukin-18 down-regulates multidrug resistance-associated protein 2 expression through farnesoid x receptor associated with nuclear factor kappa B and %u2026

Visit bosterbio.com/anti-hdac3-antibody-pa1600-1-boster.html to see all 2 publications.

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