

Anti-HDAC3 Antibody Picoband®

Catalog Number: A00839

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

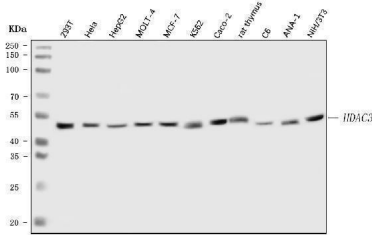
Product Name	Anti-HDAC3 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-HDAC3 Antibody Picoband® catalog # A00839. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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

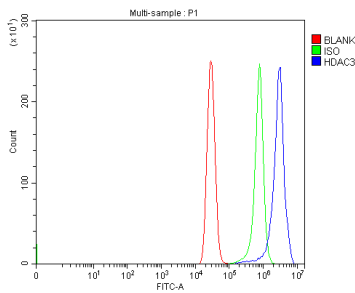
Immunogen	E.coli-derived human HDAC3 recombinant protein (Position: M1-I428).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

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 Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells ELISA, 0.1-0.5ug/ml

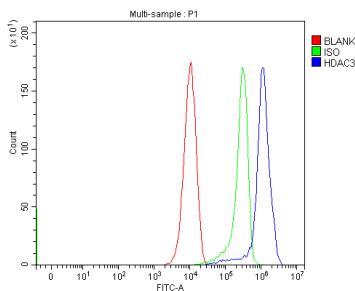
Anti-HDAC3 Antibody Picoband® (A00839) Images



Western blot analysis of HDAC3 using anti-HDAC3 antibody (A00839). 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 293T whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human MOLT-4 whole cell lysates, Lane 5: human MCF-7 whole cell lysates, Lane 6: human K562 whole cell lysates, Lane 7: human CACO-2 whole cell lysates, Lane 8: rat thymus tissue lysates, Lane 9: rat C6 whole cell lysates, Lane 10: mouse ANA-1 whole cell lysates, Lane 11: 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-HDAC3 antigen affinity purified polyclonal antibody (Catalog # A00839) 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 HDAC3 at approximately 49 kDa. The expected band size for HDAC3 is at 49 kDa.

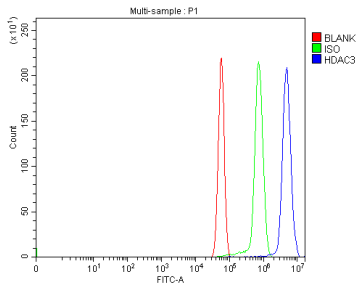


Flow Cytometry analysis of MCF-7 cells using anti-HDAC3 antibody (A00839). Overlay histogram showing MCF-7 cells stained with A00839 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HDAC3 Antibody (A00839, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of RAW264.7 cells using anti-HDAC3 antibody (A00839). Overlay histogram showing RAW264.7 cells stained with A00839 (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-HDAC3 Antibody (A00839, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled

sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of RH35 cells using anti-HDAC3 antibody (A00839). Overlay histogram showing RH35 cells stained with A00839 (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-HDAC3 Antibody (A00839, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

1 Publications Citing This Product

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

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Anti-HDAC3 Antibody

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