BOSTER BIOLOGICAL TECHNOLOGY
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Anti-HDAC6 Antibody Picoband®

Catalog Number: PB9628

About HDAC6

HDAC6, also called KIAA0901, is a member belongs to class II of the histone deacetylase/acuc/apha family of proteins that is an enzyme that in humans is encoded by the HDAC6 gene. The HDAC6 gene is mapped to chromosome Xp11.23. HDAC6 contains an internal duplication of two catalytic domains which appear to function independently of each other. The protein possesses histone deacetylase activity and represses transcription. HDAC6 functions as a tubulin deacetylase. And it is localized exclusively in the cytoplasm, where it associates with microtubules and localizes with the microtubule motor complex. HDAC6 could bind both polyubiquitinated misfolded proteins and dynein motors, thereby recruiting misfolded protein cargo to dynein motors for transport to aggresomes. Furthermore, expression of HDAC6 was sufficient to rescue degeneration associated with UPS dysfunction in vivo in an autophagy-dependent manner. HDAC6 is a central component of the stress response that regulates SG formation and potentially contributes to control of RNA metabolism and translation.

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Overview

Product Name	Anti-HDAC6 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-HDAC6 Antibody Picoband® catalog # PB9628. Tested in 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	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	Q9UBN7

Technical Details

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Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human HDAC6, different from the related mouse sequence by one amino acid.
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, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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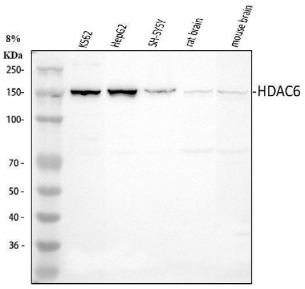
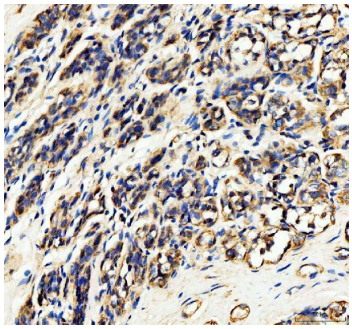
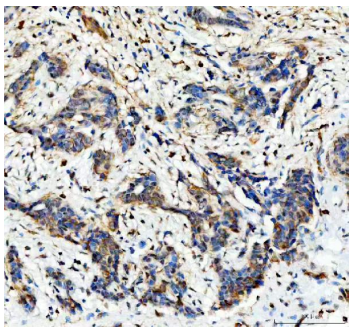
Anti-HDAC6 Antibody Picoband® (PB9628) Images



Western blot analysis of HDAC6 using anti-HDAC6 antibody (PB9628). 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 K562 whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: mouse brain tissue 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-HDAC6 antigen affinity purified polyclonal antibody (Catalog # PB9628) 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 HDAC6 at approximately 160 kDa. The expected band size for HDAC6 is at 131 kDa.



IHC analysis of HDAC6 using anti-HDAC6 antibody (PB9628). HDAC6 was detected in a paraffin-embedded section of human breast 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-HDAC6 Antibody (PB9628) 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.



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Flow Cytometry analysis of K562 cells using anti-HDAC6 antibody (PB9628). Overlay histogram showing K562 cells stained with PB9628 (Blue line). To facilitate intracellular

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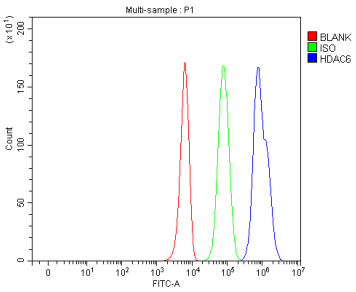

staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HDAC6 Antibody (PB9628, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 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.

Anti-HDAC6 Antibody

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