BOSTER BIOLOGICAL TECHNOLOGY
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Anti-ZBTB7A Antibody Picoband®

Catalog Number: PB9910

About ZBTB7A

Zinc finger and BTB domain-containing protein 7A is a protein that in humans is encoded by the ZBTB7A gene. ZBTB7A has a critical oncosuppressive role in the prostate. Prostate-specific inactivation of ZBTB7A leads to a marked acceleration of PTEN loss-driven prostate tumorigenesis through bypass of PTEN loss-induced cellular senescence. It has been showed that ZBTB7A physically interacts with SOX9 and functionally antagonizes its transcriptional activity on key target genes such as MIA, which is involved in tumor cell invasion, and H19, a long noncoding RNA precursor for an RB-targeting microRNA. Inactivation of ZBTB7A in vivo leads to RB downregulation, bypass of PTEN loss-induced cellular senescence, and invasive prostate cancer. Notably, it has been also found that ZBTB7A is genetically lost, as well as downregulated at both the mRNA and protein levels, in a subset of human advanced prostate cancers. Therefore, ZBTB7A is identified as a context-dependent cancer gene that can act as an oncogene in some contexts but that also has oncosuppressive-like activity in PTEN-null tumors.

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Overview

Product Name	Anti-ZBTB7A Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-ZBTB7A Antibody Picoband® catalog # PB9910. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. 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, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	O95365

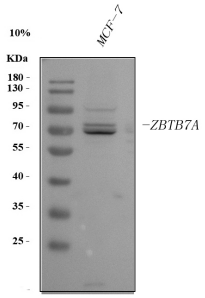
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Technical Details

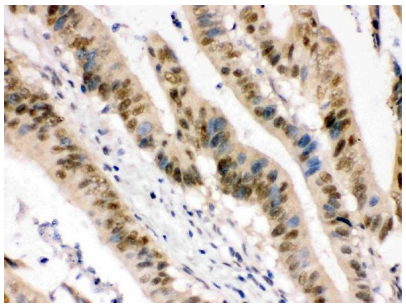
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ZBTB7A, different from the related mouse sequence by eleven amino acids, and from the related rat sequence by ten amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit 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.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/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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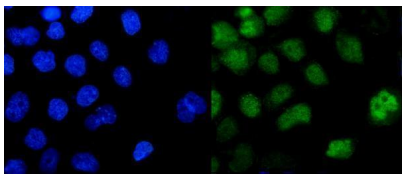
Anti-ZBTB7A Antibody Picoband® (PB9910) Images



Western blot analysis of ZBTB7A using anti-ZBTB7A antibody (PB9910). 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 MCF-7 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-ZBTB7A antigen affinity purified polyclonal antibody (Catalog # PB9910) 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 ZBTB7A at approximately 72 kDa. The expected band size for ZBTB7A is at 61 kDa.



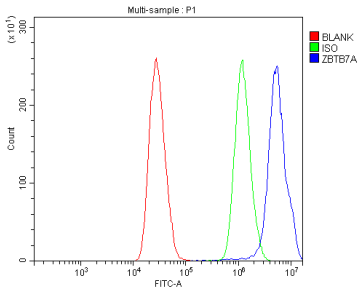
IHC analysis of ZBTB7A using anti-ZBTB7A antibody (PB9910). ZBTB7A was detected in a paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-ZBTB7A Antibody (PB9910) 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.



IF analysis of ZBTB7A using anti-ZBTB7A antibody (PB9910). ZBTB7A was detected in immunocytochemical section of A431 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-ZBTB7A Antibody (PB9910) 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.

Flow Cytometry analysis of MCF-7 cells using anti-ZBTB7A antibody (PB9910). Overlay histogram showing MCF-7 cells stained with PB9910 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were

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blocked with 10% normal goat serum. And then incubated with rabbit anti-ZBTB7A Antibody (PB9910, 1ug/1x106 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-ZBTB7A Antibody

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