

Anti-Hsp27/HSPB1 Antibody Picoband®

Catalog Number: PB9237

About HSPB1

HSPB1 (Heat shock 27kDa protein 1), also known as HSP27, is a protein that in humans is encoded by the HSPB1 gene. HSP27 gene is mapped to 7q11.23. The protein encoded by this gene is induced by environmental stress and developmental changes. The encoded protein is involved in stress resistance and actin organization and translocates from the cytoplasm to the nucleus upon stress induction. Defects in this gene are a cause of Charcot-Marie-Tooth disease type 2F (CMT2F) and distal hereditary motor neuropathy (dHMN).

Overview

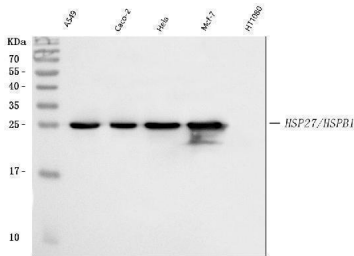
Product Name	Anti-Hsp27/HSPB1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Hsp27/HSPB1 Antibody Picoband® catalog # PB9237. Tested in Flow Cytometry, IP, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody 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, IP, IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ . *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	P04792

Technical Details

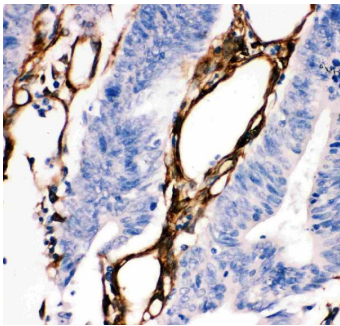
Immunogen	E.coli-derived human Hsp27 recombinant protein (Position: M1-K205). Human Hsp27 shares 83% amino acid (aa) sequence identity with mouse Hsp27.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC.

Cross Reactivity	No cross-reactivity with other proteins
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 Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human, - Immunocytochemistry/Immunofluorescence, 2ug/ml, Human, - Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry (Fixed), 1-3ug/mlx10 ⁶ cells, Human, -

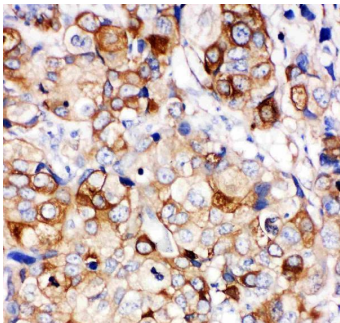
Anti-Hsp27/HSPB1 Antibody Picoband® (PB9237) Images



Western blot analysis of HSP27 using anti-HSP27 antibody (PB9237). 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 A549 whole cell lysates, Lane 2: human CACO-2 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: human HT1080 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-HSP27 antigen affinity purified polyclonal antibody (Catalog # PB9237) 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 HSP27 at approximately 27 kDa. The expected band size for HSP27 is at 27 kDa.

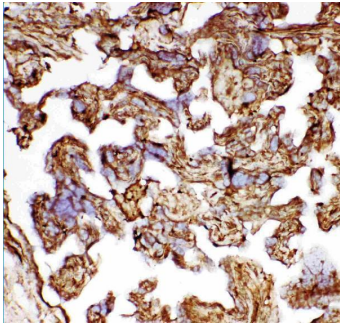


IHC analysis of HSP27 using anti-HSP27 antibody (PB9237). HSP27 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-HSP27 Antibody (PB9237) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

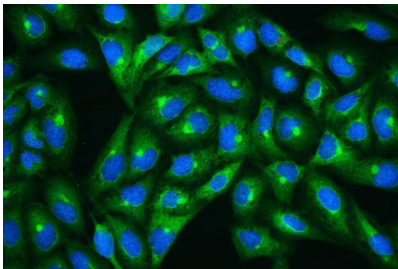


IHC analysis of HSP27 using anti-HSP27 antibody (PB9237). HSP27 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-HSP27 Antibody (PB9237) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

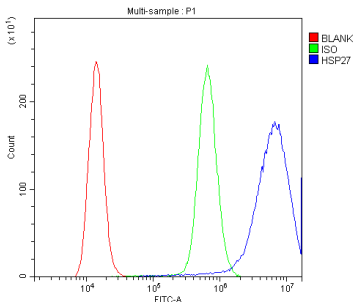
IHC analysis of HSP27 using anti-HSP27 antibody (PB9237). HSP27 was detected in frozen section of human placenta tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-HSP27 Antibody (PB9237) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and



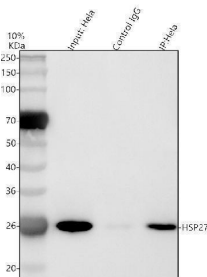
incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IF analysis of HSP27 using anti-HSP27 antibody (PB9237). HSP27 was detected in immunocytochemical section of U2OS 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 2ug/mL rabbit anti-HSP27 Antibody (PB9237) 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 A431 cells using anti-HSP27 antibody (PB9237). Overlay histogram showing A431 cells stained with PB9237 (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-HSP27 Antibody (PB9237, 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.



Immunoprecipitating HSP27 in HeLa whole cell lysate. Western blot analysis of HSP27 using anti-HSP27 antibody (PB9237). Lane 1: HeLa whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-HSP27 antibody in HeLa whole cell lysate, Lane 3: anti-HSP27 antibody (2ug) + HeLa whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-HSP27 antigen affinity purified polyclonal antibody (PB9237) at a dilution of 0.5 ug/mL and probed with a mouse anti-rabbit IgG-HRP secondary antibody. The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for HSP27 at approximately 27 kDa. The expected band size for HSP27 is at 27 kDa.

1. PubMed ID: 10.1002/jcb.23293, LRRC4 inhibits the proliferation of human glioma cells by modulating the expression of STMN1 and microtubule polymerization

Visit bosterbio.com/anti-hsp27-picoband-trade-antibody-pb9237-boster.html to see all 1 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-Hsp27/HSPB1 Antibody

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