

Anti-Heat shock protein beta-2 HSPB2 Antibody Picoband®

Catalog Number: PA1802

About HSPB2

Alpha-B-crystallin is a member of the alpha-crystallin/small heat-shock protein (HSP) family and under various neuropathologic conditions accumulates in reactive astrocytes and degenerating neurons. In the 5-prime flanking region of the CRYAB gene on 11q22-q23, where a constitutive DNaseI hypersensitive site is located, Iwaki et al. (1997) identified a gene transcribed in the opposite direction. Analysis of its mRNA structure by RT-PCR and 5-prime/3-prime RACE revealed that this gene is composed of 2 exons and encodes a new member of the alpha-crystallin/hsp family. They termed the gene HSPB2. Iwaki et al. (1997) also determined the complete genomic structure of the rat homolog of HSPB2. Southern blot analysis demonstrated that HSPB2 is expressed preferentially in skeletal muscle and heart but not in the lens, while the neighboring CRYAB gene is highly expressed in all 3 tissues. The 2 related genes are arranged in a head-to-head manner with an intergenic sequence of less than 1 kb, raising a possibility of shared regulatory elements for their expression.

Overview

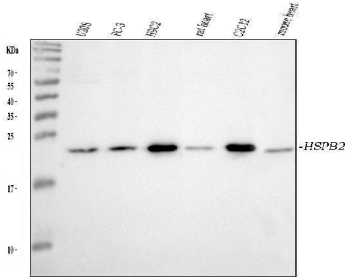
Product Name	Anti-Heat shock protein beta-2 HSPB2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Heat shock protein beta-2 HSPB2 Antibody catalog # PA1802. Tested in IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates 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	IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg 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	Q16082

Technical Details

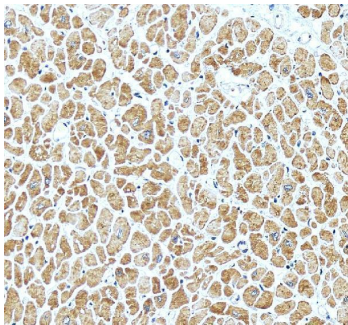
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human HSPB2, identical to the related rat and mouse sequences.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(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, Mouse, Rat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Rat, Human, Mouse Immunocytochemistry , 0.5-1ug/ml, Human, Mouse, Rat

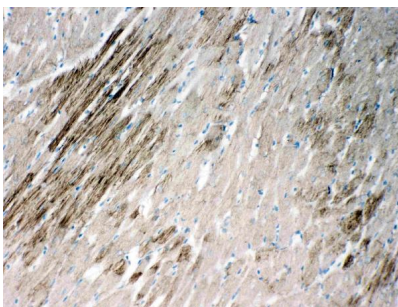
Anti-Heat shock protein beta-2 HSPB2 Antibody Picoband® (PA1802) Images



Western blot analysis of HSPB2 using anti-HSPB2 antibody (PA1802). 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 U205 whole cell lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: rat H9C2 whole cell lysates, Lane 4: rat heart tissue lysates, Lane 5: mouse C2C12 whole cell lysates, Lane 6: mouse heart 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-HSPB2 antigen affinity purified polyclonal antibody (Catalog # PA1802) 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 HSPB2 at approximately 23 kDa. The expected band size for HSPB2 is at 20 kDa.

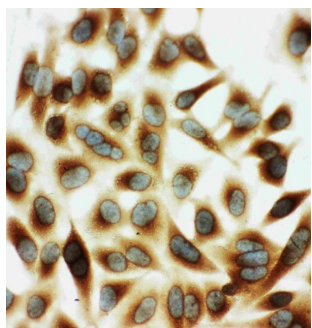


IHC analysis of HSPB2 using anti-HSPB2 antibody (PA1802). HSPB2 was detected in a paraffin-embedded section of human heart tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-HSPB2 Antibody (PA1802) 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.



Anti-HSPB2 antibody, PA1802, IHC(F)IHC(F): Rat Cardiac Muscle Tissue

Anti-HSPB2 antibody, PA1802, ICCIC: HELA Cell



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Anti-Heat shock protein beta-2 HSPB2 Antibody

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