

Anti-Hsp70/HSPA1A/HSPA1B Antibody Picoband®

Catalog Number: PA1813

About HSPA1A

HSPA1 (heat shock 70kDa protein 1A) also known as HSP70-1, HSPA1A, HSP70-1A, HSP72 or HSP70I, is a protein that in humans is encoded by the HSPA1A gene. This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. The HSPA1A gene encodes a predicted 641-amino acid protein. The HSPA1 gene is mapped on 6p21.33. Shimizu et al. (1999) found that peripheral blood mononuclear cells of 18 major depression patients expressed a short HSPA1A transcript that utilized exon 1 rather than exon 2, which is found in the more common HSPA1A transcript. No protein was associated with expression of this short HSPA1A mRNA, possibly due to lack of a TATA box or loss of internal ribosome binding sites. Treatment with BGP-15, a pharmacologic inducer of Hsp72 that can protect against obesity-induced insulin resistance, improved muscular architecture, strength, and contractile function in severely affected diaphragm muscles in mdx dystrophic mice.

Overview

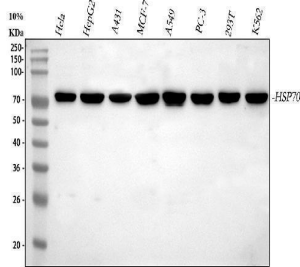
Product Name	Anti-Hsp70/HSPA1A/HSPA1B Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Hsp70/HSPA1A/HSPA1B Antibody catalog # PA1813. Tested in IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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, 0.01mg 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	P0DMV8

Technical Details

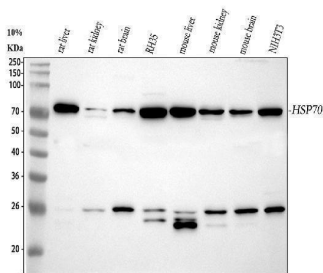
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Hsp70, different from the related mouse sequence by four amino acids and from the related rat sequence by three amino
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	acids.
Recommended Detection Systems	Boster 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), 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 (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Rat Immunocytochemistry , 0.5-1ug/ml, Human, -

Anti-Hsp70/HSPA1A/HSPA1B Antibody Picoband® (PA1813) Images

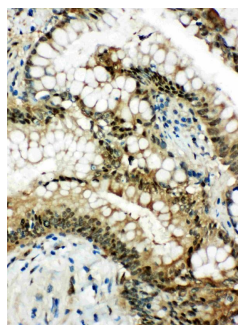
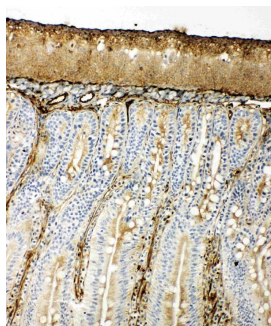


Western blot analysis of HSP70 using anti-HSP70 antibody (PA1813). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human A431 whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: human A549 whole cell lysates, Lane 6: human PC-3 whole cell lysates, Lane 7: human 293T whole cell lysates, Lane 8: human K562 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-HSP70 antigen affinity purified polyclonal antibody (Catalog # PA1813) 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 HSP70 at approximately 70 kDa. The expected band size for HSP70 is at 70 kDa.

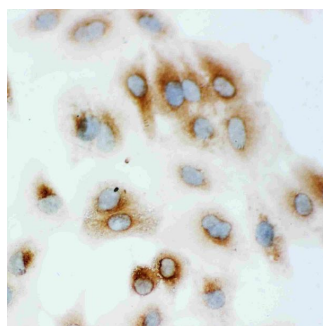


Western blot analysis of HSP70 using anti-HSP70 antibody (PA1813). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat liver tissue lysates, Lane 2: rat kidney tissue lysates, Lane 3: rat brain tissue lysates, Lane 4: rat RH35 whole cell lysates, Lane 5: mouse liver tissue lysates, Lane 6: mouse kidney tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: 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-HSP70 antigen affinity purified polyclonal antibody (Catalog # PA1813) 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 HSP70 at approximately 70 kDa. The expected band size for HSP70 is at 70 kDa.

Anti-Hsp70 antibody, PA1813, IHC(F)IHC(F):Rat Intestine Tissue



Anti-Hsp70 antibody, PA1813, IHC(P)IHC(P): Human Intestinal Cancer Tissue



Anti-Hsp70 antibody, PA1813, ICCICC: A549 Cell

12 Publications Citing This Product

1. PubMed ID: 10.1016/j.fsi.2017.03.024, Expression of Hsp70 reveals significant differences between fin regeneration and inflammation in *Paramisgurnus dabryanus*
2. PubMed ID: 23554704, Effects of minocycline on the expression of NGF and HSP70 and its neuroprotection role following intracerebral hemorrhage in rats
3. PubMed ID: 15378770, Down-modulation of heat shock protein 70 and up-modulation of Caspase-3 during schisandrin B-induced apoptosis in human hepatoma SMMC-7721 cells

Visit bosterbio.com/anti-hsp70-antibody-pa1813-boster.html to see all 12 publications.

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