BOSTER BIOLOGICAL TECHNOLOGY
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Anti-HSPA6 Antibody Picoband®

Catalog Number: A05402-4

About HSPA6

Heat shock 70 kDa protein 6 is a protein that in humans is encoded by the HSPA6 gene. The HSPA6 gene, also known as heat shock 70 kDa protein 6, encodes a member of the heat shock protein 70 (HSP70) family, which functions as molecular chaperones involved in protein folding, unfolding, and transport under stress conditions. HSPA6 is induced in response to cellular stressors such as heat shock, oxidative stress, and exposure to toxic agents, where it assists in protein refolding and prevents protein aggregation, thus promoting cell survival. While HSPA6 shares significant sequence homology with other HSP70 family members, it exhibits distinct expression patterns and functional properties in different tissues and cellular contexts. Its role in various physiological processes and diseases, including neurodegenerative disorders, cancer, and cardiovascular diseases, is under investigation. Understanding the molecular mechanisms underlying HSPA6 function is crucial for elucidating its role in cellular stress responses and its potential as a therapeutic target for stress-related diseases.

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Overview

Product Name	Anti-HSPA6 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-HSPA6 Antibody Picoband® catalog # A05402-4. Tested in WB, FCM 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P17066

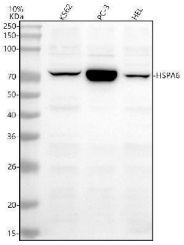
Technical Details

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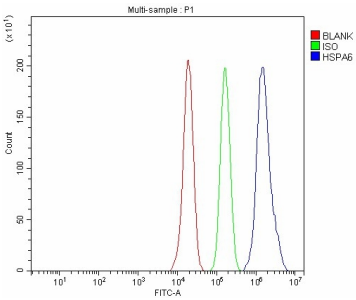
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human HSPA6, which shares 81.2% amino acid (aa) sequence identity with mouse and rat HSPA6.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Form	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, 0.25-0.5 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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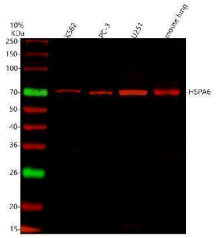
Anti-HSPA6 Antibody Picoband® (A05402-4) Images



Western blot analysis of HSPA6 using anti-HSPA6 antibody (A05402-4). 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 PC-3 whole cell lysates, Lane 3: human HEL 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-HSPA6 antigen affinity purified polyclonal antibody (Catalog # A05402-4) 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 HSPA6 at approximately 71 kDa. The expected band size for HSPA6 is at 71 kDa.



Flow Cytometry analysis of PC-3 cells using anti-HSPA6 antibody (A05402-4). Overlay histogram showing PC-3 cells stained with A05402-4 (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-HSPA6 Antibody (A05402-4, 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.



Western blot analysis of HSPA6 using anti-HSPA6 antibody (A05402-4). 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 PC-3 whole cell lysates, Lane 3: human U251 whole cell lysates, Lane 4: mouse lung 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-HSPA6 antigen affinity purified polyclonal antibody (A05402-4) 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-DyLight 647 Conjugated secondary antibody at a dilution of 1:2000 for 1.5 hour at RT. A specific band was detected for HSPA6 at

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approximately 71 kDa. The expected band size for HSPA6 is at 71 kDa.

Anti-HSPA6 Antibody

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