10320 Camino Santa Fe, Suite G
San Diego, CA 92121
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Anti-HSPB8/Hsp22 Picoband Antibody

Catalog # ABO10251

Specification

Anti-HSPB8/Hsp22 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q9UJY1
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Heat shock protein beta-8(HSPB8) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-HSPB8/Hsp22 Picoband Antibody - Additional Information

Gene ID 26353

Other Names
Heat shock protein beta-8, HspB8, Alpha-crystallin C chain, E2-induced gene 1 protein, Protein kinase H11, Small stress protein-like protein HSP22, HSPB8, CRYAC, E2IG1, HSP22

Calculated MW
21604 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Cytoplasm . Nucleus . Translocates to nuclear foci during heat shock.

Tissue Specificity
Predominantly expressed in skeletal muscle and heart. .

Protein Name
Heat shock protein beta-8

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human HSPB8/Hsp22 recombinant protein (Position: M1-T196). Human HSPB8/Hsp22 shares 94.4% and 95.4% amino acid (aa) sequence identity with mouse and rat HSPB8/Hsp22, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-HSPB8/Hsp22 Picoband Antibody - Protein Information

Name HSPB8

Synonyms CRYAC, E2IG1, HSP22

Function
Involved in the chaperone-assisted selective autophagy (CASA), a crucial process for protein quality control, particularly in mechanical strained cells and tissues such as muscle. Displays temperature-dependent chaperone activity.

Cellular Location
Cytoplasm. Nucleus Note=Translocates to nuclear foci during heat shock

Tissue Location
Predominantly expressed in skeletal muscle and heart.

Anti-HSPB8/Hsp22 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-HSPB8/Hsp22 Picoband Antibody - Images

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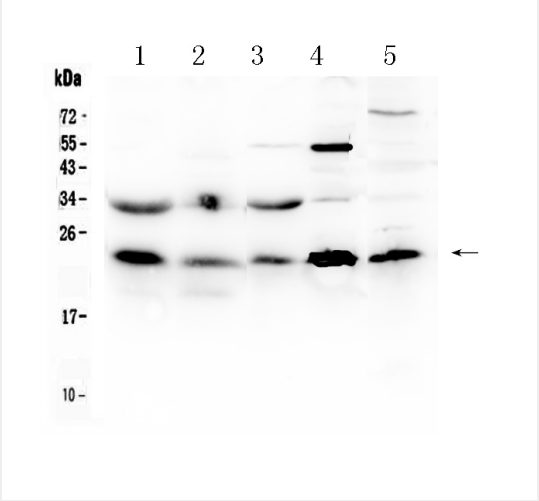

Figure 1. Western blot analysis of HSPB8/Hsp22 using anti- HSPB8/Hsp22 antibody (ABO10251). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat skeletal muscle tissue lysates, Lane 2: rat heart tissue lysates, Lane 3: mouse skeletal muscle tissue lysates, Lane 4: mouse heart tissue lysates, Lane 5: HELA whole Cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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- HSPB8/Hsp22 antigen affinity purified polyclonal antibody (Catalog # ABO10251) at 0.5 Î¼g/mL overnight at 4Â°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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for HSPB8/Hsp22 at approximately 22KD. The expected band size for HSPB8/Hsp22 is at 22KD.

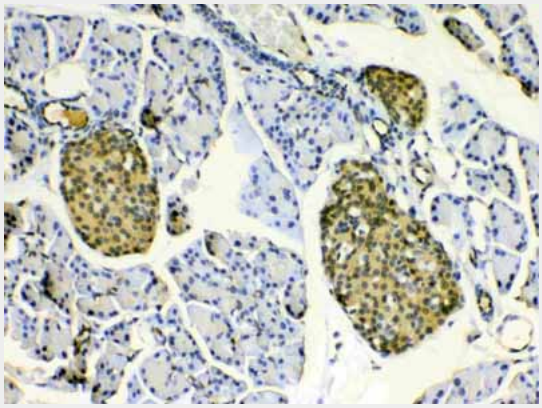

Figure 2. IHC analysis of HSPB8/Hsp22 using anti- HSPB8/Hsp22 antibody (ABO10251).HSPB8/Hsp22 was detected in paraffin-embedded section of mouse pancreas tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- HSPB8/Hsp22 Antibody (ABO10251) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

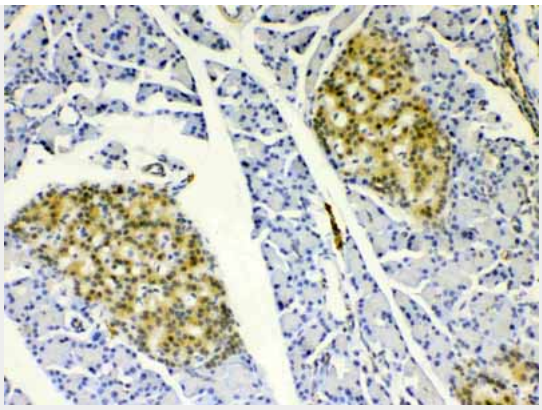

Figure 3. IHC analysis of HSPB8/Hsp22 using anti- HSPB8/Hsp22 antibody (ABO10251).HSPB8/Hsp22 was detected in paraffin-embedded section of rat pancreas tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- HSPB8/Hsp22 Antibody (ABO10251) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

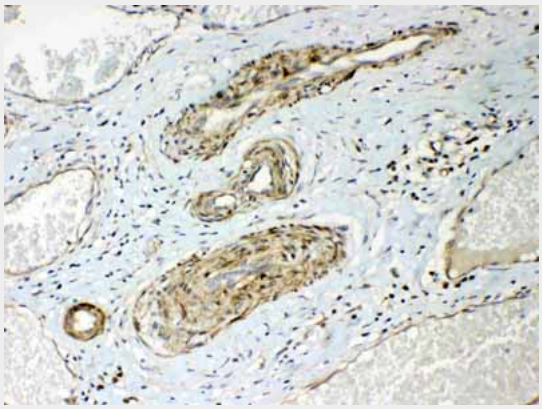

Figure 4. IHC analysis of HSPB8/Hsp22 using anti- HSPB8/Hsp22 antibody (ABO10251).HSPB8/Hsp22 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- HSPB8/Hsp22 Antibody (ABO10251) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

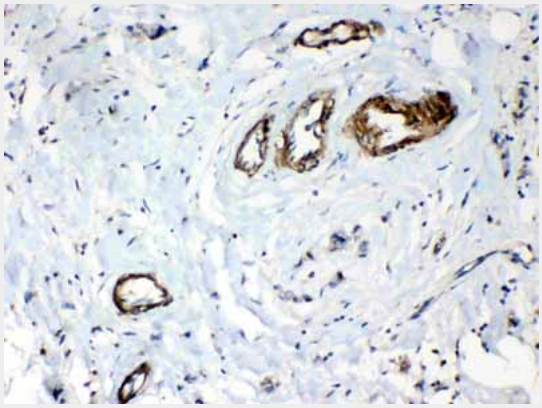

Figure 5. IHC analysis of HSPB8/Hsp22 using anti- HSPB8/Hsp22 antibody (ABO10251).HSPB8/Hsp22 was detected in paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti- HSPB8/Hsp22 Antibody (ABO10251) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Anti-HSPB8/Hsp22 Picoband Antibody - Background

Heat shock protein beta-8 is a protein that in humans is encoded by the HSPB8 gene. The protein encoded by this gene belongs to the superfamily of small heat-shock proteins containing a conservative alpha-crystallin domain at the C-terminal part of the molecule. The expression of this gene in induced by estrogen in estrogen receptor-positive breast cancer cells, and this protein also functions as a chaperone in association with Bag3, a stimulator of macroautophagy. Thus, this gene appears to be involved in regulation of cell proliferation, apoptosis, and carcinogenesis, and mutations in this gene have been associated with different neuromuscular diseases, including Charcot-Marie-Tooth disease.