

Anti-HSPB8/Hsp22 Picoband Antibody

Catalog # ABO10251

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.

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
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. .
Source	Eukaryota
Protein Name	Heat shock protein beta-8
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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 reconstitution, 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.
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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.

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 is 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.

Images

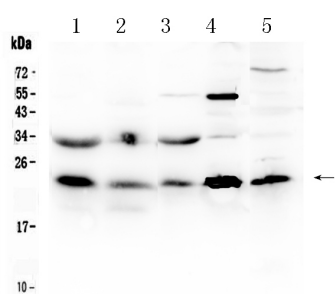


Figure 1. Western blot analysis of HSPB8/Hsp22 using anti- HSPB8/Hsp22 antibody (ABO10251). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat 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 µg/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 1:10000 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.

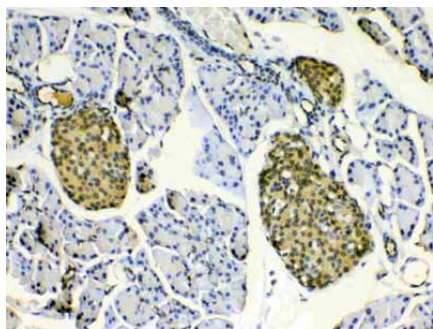


Figure 2. IHC analysis of HSPB8/Hsp22 using anti-HSPB8/Hsp22 antibody (ABO10251).HSPB8/Hsp22 was detected in paraffin-embedded section of mouse pancreas tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked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

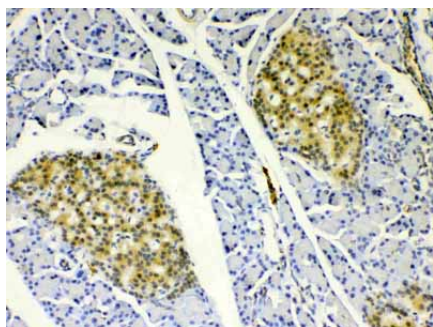


Figure 3. IHC analysis of HSPB8/Hsp22 using anti-HSPB8/Hsp22 antibody (ABO10251).HSPB8/Hsp22 was detected in paraffin-embedded section of rat pancreas tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked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

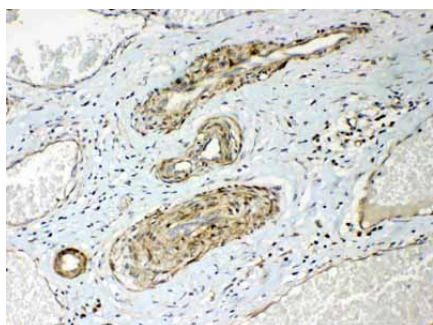


Figure 4. IHC analysis of HSPB8/Hsp22 using anti-HSPB8/Hsp22 antibody (ABO10251).HSPB8/Hsp22 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked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

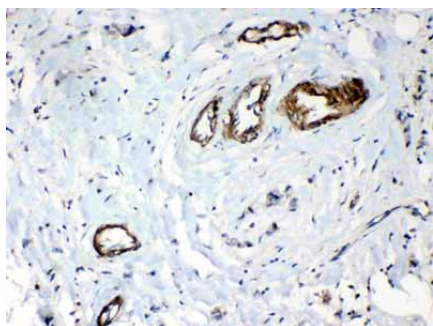


Figure 5. IHC analysis of HSPB8/Hsp22 using anti-HSPB8/Hsp22 antibody (ABO10251).HSPB8/Hsp22 was detected in paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was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