

HSPB7 (F-15): sc-103555

BACKGROUND

The heat shock proteins (HSPs) comprise a group of highly conserved, abundantly expressed proteins with diverse functions, including the assembly and sequestering of multiprotein complexes, transportation of nascent polypeptide chains across cellular membranes and regulation of protein folding. Heat shock proteins (also known as molecular chaperones) fall into six general families: HSP 90, HSP 70, HSP 60, the small HSPs, the immunophilins and the HSP 110 family. HSPB7 (heat shock 27 kDa protein family, member 7), also known as cvHSP (cardiovascular heat shock protein) or heat shock protein β -7, is a member of the small HSP (sHSP) family expressed in heart and skeletal muscle. Members of the sHSP family contain a conserved C-terminal α -crystallin domain and typically function in homo- or heteromeric complexes. The sHSPs bind to denatured proteins and are responsible for preventing the aggregation of these proteins. In response to muscle fiber transformation and in muscular dystrophy, the expression levels of HSPB7 are drastically increased, suggesting that HSPB7 may be a useful target in therapeutic strategies for preventing age-related muscle wasting.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HSPB7 (human) mapping to 1p36.13; Hspb7 (mouse) mapping to 4 E1.

SOURCE

HSPB7 (F-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HSPB7 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103555 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HSPB7 (F-15) is recommended for detection of HSPB7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HSPB7 siRNA (h): sc-78757, HSPB7 siRNA (m): sc-105547, HSPB7 shRNA Plasmid (h): sc-78757-SH, HSPB7 shRNA Plasmid (m): sc-105547-SH, HSPB7 shRNA (h) Lentiviral Particles: sc-78757-V and HSPB7 shRNA (m) Lentiviral Particles: sc-105547-V.

Molecular Weight of HSPB7: 25 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **HSPB7 (F-4): sc-393739** or **HSPB7 (SQ-37): sc-100759**, our highly recommended monoclonal alternatives to HSPB7 (F-15).