

#### Anti-Human Hsp27 DyLight® 488 conjugated HSPB1 Antibody(monoclonal, 3H3) Catalog # AB014928

#### Specification

### Anti-Human Hsp27 DyLight $\circledast$ 488 conjugated HSPB1 Antibody (monoclonal, 3H3) - Product Information

Application Primary Accession Host Isotype Reactivity Clonality Format Description FC <u>P04792</u> Mouse Mouse IgG1 Human Monoclonal Liquid

Anti-Human Hsp27 DyLight<sup>®</sup> 488 conjugated HSPB1 Antibody (monoclonal, 3H3) . Tested in Flow Cytometry applications. This antibody reacts with Human.

#### Anti-Human Hsp27 DyLight $\ensuremath{\$8}$ 488 conjugated HSPB1 Antibody (monoclonal, 3H3) - Additional Information

Gene ID 3315

**Other Names** 

Heat shock protein beta-1, HspB1, 28 kDa heat shock protein, Estrogen-regulated 24 kDa protein, Heat shock 27 kDa protein, HSP 27, Heat shock protein family B member 1, Stress-responsive protein 27, SRP27, HSPB1, HSP27, HSP28

**Application Details** Flow Cytometry, 1-3 μg/1x10<sup>6</sup> cells, human<br>

Contents Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na2HPO4, 0.02% NaN8.

Immunogen

E.coli-derived human Hsp27 recombinant protein (Position: M1-K205). Human Hsp27 shares 83% amino acid (aa) sequence identity with mouse Hsp27.

**Cross Reactivity** No cross-reactivity with other proteins.

Storage

At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.

## Anti-Human Hsp27 DyLight<sup>®</sup> 488 conjugated HSPB1 Antibody(monoclonal, 3H3) - Protein Information

Name HSPB1



### Synonyms HSP27, HSP28

## Function

Small heat shock protein which functions as a molecular chaperone probably maintaining denatured proteins in a folding- competent state (PubMed:<a

href="http://www.uniprot.org/citations/10383393" target="\_blank">10383393</a>, PubMed:<a href="http://www.uniprot.org/citations/20178975" target="\_blank">20178975</a>). Plays a role in stress resistance and actin organization (PubMed:<a

href="http://www.uniprot.org/citations/19166925" target="\_blank">19166925</a>). Through its molecular chaperone activity may regulate numerous biological processes including the phosphorylation and the axonal transport of neurofilament proteins (PubMed:<a href="http://www.uniprot.org/citations/23728742" target=" blank">23728742</a>).

### **Cellular Location**

Cytoplasm. Nucleus Cytoplasm, cytoskeleton, spindle Note=Cytoplasmic in interphase cells. Colocalizes with mitotic spindles in mitotic cells. Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles.

### Tissue Location

Detected in all tissues tested: skeletal muscle, heart, aorta, large intestine, small intestine, stomach, esophagus, bladder, adrenal gland, thyroid, pancreas, testis, adipose tissue, kidney, liver, spleen, cerebral cortex, blood serum and cerebrospinal fluid. Highest levels are found in the heart and in tissues composed of striated and smooth muscle.

## Anti-Human Hsp27 DyLight<sup>®</sup> 488 conjugated HSPB1 Antibody(monoclonal, 3H3) - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Anti-Human Hsp27 DyLight® 488 conjugated HSPB1 Antibody(monoclonal, 3H3) - Images

# Anti-Human Hsp27 DyLight® 488 conjugated HSPB1 Antibody(monoclonal, 3H3) - Background

HSPB1 (Heat shock 27kDa protein 1), also known as HSP27, is a protein that in humans is encoded by the HSPB1 gene. HSP27 gene is mapped to 7q11.23. The protein encoded by this gene is induced by environmental stress and developmental changes. The encoded protein is involved in stress resistance and actin organization and translocates from the cytoplasm to the nucleus upon stress induction. Defects in this gene are a cause of Charcot-Marie-Tooth disease type 2F (CMT2F) and distal hereditary motor neuropathy (dHMN).