

**HSPB2 (MKBP) Antibody**  
**Catalog # ASM10454****Specification**

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**HSPB2 (MKBP) Antibody - Product Information**

|                                           |                             |
|-------------------------------------------|-----------------------------|
| Application                               | WB, ICC                     |
| Primary Accession                         | <a href="#">Q16082</a>      |
| Other Accession                           | <a href="#">NP_001532.1</a> |
| Host                                      | Rabbit                      |
| Reactivity                                | Human, Mouse, Rat           |
| Clonality                                 | Polyclonal                  |
| <b>Description</b>                        |                             |
| Rabbit Anti-Human HSPB2 (MKBP) Polyclonal |                             |

**Target/Specificity**  
Detects ~27kDa.**Other Names**

DMPK-binding protein Antibody, heat shock 27kDa protein 2 Antibody, HSP27 Antibody, HSPB2 Antibody, MKBP Antibody, MGC133245 Antibody

**Immunogen**

Synthetic peptide

**Purification**

Protein A Purified

Storage -20°C

**Storage Buffer**

PBS, 50% glycerol, 0.02% sodium azide

Shipping Temperature

Blue Ice or 4°C

**Certificate of Analysis**

1 µg/ml of SPC-194 was sufficient for detection of MKBP in 10 µg of human cell line mixed lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

**Cellular Localization**

Cytoplasm | Nucleus

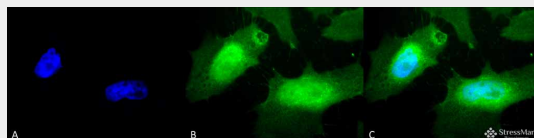
**HSPB2 (MKBP) Antibody - Protocols**

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

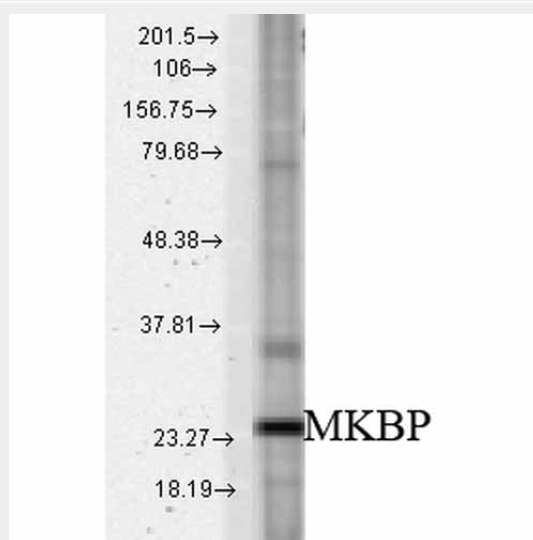
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

### HSPB2 (MKBP) Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-HSPB2 Polyclonal Antibody (ASM10454). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-HSPB2 Polyclonal Antibody (ASM10454) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Nucleus. Cytoplasm. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-HSPB2 Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Western blot analysis of Rat tissue mix showing detection of HSPB2 protein using Rabbit Anti-HSPB2 Polyclonal Antibody (ASM10454). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-HSPB2 Polyclonal Antibody (ASM10454) at 1:1000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.

### HSPB2 (MKBP) Antibody - Background

HSPB2, also known as MKBP is the most divergent member of the sHSP family with only 30% sequence identity to all other mammalian sHSPs (1). MKBP is known to associate specifically with myotonic dystrophy protein kinase (DMPK) in skeletal muscle. MKBP enhances the kinase activity of DMPK and protects it from heat-induced activation. MKBP also shows a unique nature compared to other sHSPs, in that the expression of MKBP is not induced by heat shock (2). In unstressed skeletal muscle, MKBP forms large oligomeric complexes with HSPB3 in the cytosol which are localized on mitochondria and the neuromuscular junction (1, 3). During stress, these complexes dissolve and MKBP's localization to mitochondria increases, leading to increased cell survival. Pinz et al. tried to find a distinct role for MKBP in terms of cardiac mechanics and finds that it is required for normal systolic performance and normal cardiac energetic (1). HSPB2 has also been found to be expressed in several cancer cell lines, including human breast cancer, suggesting that MKBP may be an important factor in tumor transformation and metastasis (4).

### HSPB2 (MKBP) Antibody - References

1. Pinz I., et al. (2008) FASEB J. 22: 84-92.
2. Suzuki A., et al. (1998) J Cell Bio. 140(5): 1113-1124.
3. Sugiyama Y., et al. (2000) J Biol Chem. 275: 1095-1104.
4. Oshita S.E., et al. (2010) Breast Cancer Res Treat. Epub: 20087649.