Datasheet for ABIN2486031

anti-HSPB2 antibody (Atto 488)

2 Images

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Overview

Quantity:	100 µg
Target:	HSPB2
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HSPB2 antibody is conjugated to Atto 488
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Synthetic peptide
Specificity:	Detects ~27 kDa.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Protein A Purified

Target Details

Target:	HSPB2
Alternative Name:	HSPB2 (HSPB2 Products)
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

Target Details

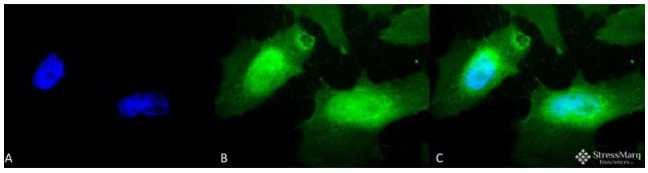
	nature compared to other sHSPs, in that the expression of MKBP is not induced by heat shock (2). In unstressed skeletal muscle, MKBP forms large oligomeric complexes with HSPB3 in the cytosol which are localized on mitochondria and the neuromuscular junction (1, 3). During stress, these complexes dissolve 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).
Gene ID:	3316
NCBI Accession:	NP_001532
UniProt:	Q16082

Application Details

Application Notes:	• WB (1:1000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2486031 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.
Restrictions:	For Research Use only

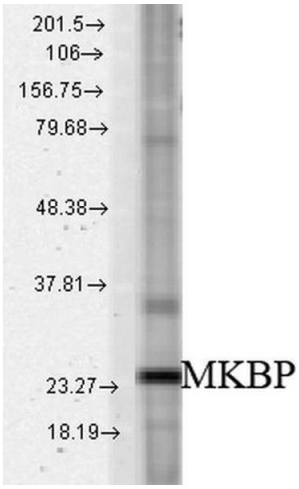
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS, 50 % glycerol, 0.02 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C



Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-HSPB2 Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-HSPB2 Polyclonal Antibody 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 Blotting

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