

# **HSP70** monoclonal antibody

Catalog: MB65956

Host: N

Mouse

Reactivity: Human, Mouse, Rat

## **BackGround:**

Molecular chaperone implicated in a wide variety of cellular processes, including protection of the proteome from stress, folding and transport of newly synthesized polypeptides, activation of proteolysis of misfolded proteins and the formation and dissociation of protein complexes. Plays a pivotal role in the protein quality control system, ensuring the correct folding of proteins, the re-folding of misfolded proteins and controlling the targeting of proteins for subsequent degradation. This is achieved through cycles of ATP binding, ATP hydrolysis and ADP release, mediated by co-chaperones. The affinity for polypeptides is regulated by its nucleotide bound state. In the ATP-bound form, it has a low affinity for substrate proteins. However, upon hydrolysis of the ATP to ADP, it undergoes a conformational change that increases its affinity for substrate proteins. It goes through repeated cycles of ATP hydrolysis and nucleotide exchange, which permits cycles of substrate binding and release (Pub-Med:26865365).

Positive regulator of PRKN translocation to damaged mitochondria (PubMed:24270810).

### **Product:**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

## **Molecular Weight:**

## ~ 70 kDa

**Swiss-Prot:** 

P34931; P08107

#### **Purification&Purity:**

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

#### **Applications:**

WB (1/1000 - 1/2000), IHC (1/100 - 1/200), IF/ICC (1/100 - 1/200)

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#### **Storage&Stability:**

Store at  $4 \,^{\circ}{\rm C}$  short term. Aliquot and store at  $-20 \,^{\circ}{\rm C}$  long term. Avoid freeze-thaw cycles.

#### **Specificity:**

Recognizes endogenous levels of HSP70 protein.

#### DATA:



Western blot analysis of HSP70 expression in Hela (A), mouse brain (B) whole cell lysates.



Immunohistochemical analysis of HSP70 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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# **PRODUCT DATA SHEET**

#### **Bioworld Technology,Inc.**

Immunofluorescent analysis of HSP70 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a FITC-conjugated secondary antibody (green) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

# Note:

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

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