# Anti-HSP70 Antibody EM60062



Product Type: Species reactivity:	Mouse monoclonal, primary antibodies Human, Mouse, Rat
Applications:	WB, IHC-P, IF-cell
Molecular Wt:	70 kDa
Description:	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. Positive regulator of PRKN translocation to damaged mitochondria.
lmmunogen:	Synthetic Peptide of HSP70
Positive control:	Stomach mucosa, Testis,
Subcellular location:	Cytosol, Mitochondrion, Nucleus.
Database links:	SwissProt: P0DMV8 Human   P0DMV9 Human
Recommended Dilutions: WB IF-cell IHC-P	1:1000-1:2000 1:100-200 1:50-300
Storage Buffer:	PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.
Storage Instruction:	Store at +4 $^\circ\!C$ after thawing. Aliquot store at -20 $^\circ\!C$ or -80 $^\circ\!C$ . Avoid repeated freeze / thaw cycles.
Purity:	Immunogen affinity purified.

## Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

5 Service mail:support@huabio.cn



Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

#### EM60062 - Page 2

#### Images



**Fig1:** Western blot analysis of lysates from HT-29, NIH/3T3, and HepG2 cells, primary antibody was diluted at 1:1000, 4° over night, secondary antibody (cat: HA1006)was diluted at 1:10000, 37° 1hour.



**Fig2:** Immunofluorescence analysis of Human-breast-cancer tissue. 1, HSP70 Monoclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min).3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B.



**Fig3:** Immunohistochemical analysis of paraffin-embedded Humanuterus-cancer tissue. 1, HSP70 Monoclonal Antibody was diluted at 1:200 (4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min). 3, Secondary antibody was diluted at 1:200 (room tempeRature, 30min). Negative control was used by secondary antibody only.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

#### **Background References**

- 1. Radons J. The human HSP70 family of chaperones: where do we stand? Cell Stress Chaperones 21:379-404(2016).
- 2. Hasson S.A. et al. High-content genome-wide RNAi screens identify regulators of parkin upstream of mitophagy. Nature 504:291-295(2013).

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