

---

**anti-HSP 70**

Cat #: HM1179  
Mouse monoclonal IgG  
0.2 µg/µl, store at 4 °C

For research use only

**APPLICATIONS**

Also called molecular chaperones the heat shock proteins (HSPs) are highly conserved with diverse functions, including the assembly and sequestering of multiprotein complexes, transportation of nascent polypeptide chains across cellular membranes and regulation of protein folding. Heat shock proteins fall into six general families: HSP 90, HSP 70, HSP 60, the small molecular weight HSPs, the immunophilins and the HSP 110 family. The HSP 70 family includes HSP 70, HSC 70, GRP 78 and GRP 75. HSP70 is typically not expressed in the cell under normal growth conditions, but is expressed at high levels in cells experiencing stress. Consequently, detection of HSP70 using an antibody specific for the inducible form is useful in ascertaining whether a stress response has occurred in the cell. The members of HSP 70 family are also implicated in acting as force generating motors.

**SPECIFICITY**

This antibody specifically recognizes HSP 70 of human, rat and mouse origin.

The antibody can be used in Western blotting, immunoprecipitation and immunostaining.

**IMMUNOGEN**

Full length recombinant human HSP 70 protein.

**STORAGE**

This antibody is stable for 12 months when stored at 2-8°C.

**REFERENCE**

1. Beckmann RP, Mizzen LE, Welch WJ. 1990. Interaction of Hsp 70 with newly synthesized proteins: implications for protein folding and assembly. *Science*. 248:850-4.
2. Beckmann RP, Lovett M, Welch WJ. 1992. Examining the function and regulation of hsp 70 in cells subjected to metabolic stress. *J Cell Biol*. 117:1137-50.
3. Bhattacharyya, T., Karnezis, A.N., Murphy, S.P., Hoang, T., Freeman, B.C., Phillips, B., and Morimoto, R.I. 1995. Cloning and subcellular localization of human mitochondrial hsp70. *J. Biol. Chem.* 270: 1705-1710.
4. Martin, J., Horwich, A.L., and Hartl, F.U. 1992. Prevention of protein denaturation under heat stress by the chaperonin Hsp60. *Science* 258: 995-998.
5. Glick, B.S. 1995. Can Hsp70 proteins act as force-generating motors? *Cell* 80: 11-14.

6. Csermely, P., Miyata, Y., Schneider, T., and Yahara, I. 1995. Autophosphorylation of grp94 (endoplasmic reticulum chaperone). *J. Biol. Chem.* 270: 6381-6388.
7. Massa, S.M., Longo, F.M., Zuo, J., Wang, S., Chen, J., and Sharp, F.R. 1995. Cloning of rat grp75, an hsp70-family member, and its expression in normal and ischemic brain. *J. Neuro. Res.* 40: 807-819.

**PRODUCT FROM HYPROMATRIX, INC.****A. AntibodyArray™s:**

1. Signal Transduction AntibodyArray™  
Catalog Number HM3000
2. Apoptosis AntibodyArray™  
Catalog Number HM4000
3. Cell Cycle AntibodyArray™  
Catalog Number HM5000

**B. Staining AntibodyArray™s**

1. Staining AntibodyArray™ I  
Catalog Number HM8100
2. AntibodyArray Staining Apparatus  
Catalog Number HM8000

**C. Antibodies****1. HRP-conjugated antibodies**

- anti-phosphotyrosine  
Catalog Number HM2040
- anti-phosphoserine  
Catalog Number HM2070
- anti-phosphothreonine  
Catalog Number HM2090

and more...

**2. Primary antibodies**

Hypromatrix offers a variety of high quality antibodies. For a complete list of antibodies and their specificities, please visit our web site at [www.hypromatrix.com](http://www.hypromatrix.com).

**CONTACT**

**Hypromatrix, Inc.**  
25 Winthrop Street  
Worcester, MA 01604  
USA

Tel: 508-797-1700  
Fax: 508-302-0748  
Email: [contact@hypromatrix.com](mailto:contact@hypromatrix.com)  
Web: [www.hypromatrix.com](http://www.hypromatrix.com)