

## Monoclonal Antibody to Heat Shock Protein 70 (HSP70)

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| <b>Alternate names:</b> | HSP-70, HSP70-1, HSP70-2, HSP70.1, HSPA1, HSPA1A, HSPA1B, Heat Shock 70 kDa Protein 1   |
| <b>Catalog No.:</b>     | SM5061  |
| <b>Quantity:</b>        | 50 µl   |
| <b>Host / Isotype:</b>  | Rat / IgG   |
| <b>Clone:</b>           | 7.10  |
| <b>Immunogen:</b>       | The immunizing peptide corresponds to amino acids 437-479 of human HSP70.   |
| <b>Applications:</b>    | Western Blot: 1/500. Other applications not tested. Optimal dilutions of this antibody are dependent on conditions and should be determined by the user.<br>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.  |
| <b>Specificity:</b>     | The HSP70 family is a set of highly conserved proteins that are induced by a variety of biological stresses, including heat stress, in every organism in which the proteins have been examined. The human HSP70 family members include: HSP70, a protein which is strongly inducible in all organisms but which is also constitutively expressed in primate cells; HSP72, a 72 kDa protein that is induced exclusively under stress conditions; HSC70, or cognate protein, is a 72 kDa, constitutively expressed, protein which is involved in the uncoating of clathrin coated vesicles; GRP78, or BiP, is a glucose regulated 78 kDa protein localized in the endoplasmic reticulum; and p75, or HSP75, a 75 kDa protein that is found within the mitochondria. |

This antibody detects several members of the heat shock protein 70 kDa (HSP70) gene family including HSP70, HSC70, GRP78, and following heat shock, HSP72 from drosophila, yeast, trypanosome, mouse, soybean and human samples.

SM5061 has been successfully used in Western blot procedures. By Western blot, this antibody detects proteins from ~70 kDa to ~78 kDa representing different members of the HSP70 family. 2-dimensional gel electrophoresis is required to resolve the heat induced form of these proteins from their constitutively expressed counterparts.

SM5061 immunizing peptide corresponds to amino acid residues 437-479 of human HSP70.

Figure 1 shows a Western blot of human HSP70 using SM5061.

**Storage:**

Store the antibody at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

**Pictures:**

