

## Mouse HSC70 Monoclonal Antibody | anti-HSC70 antibody

HSC70 Monoclonal Antibody (8G7)

| CATALOG # | HOST  | REACTIVITY        | APPLICATIONS                       |
|-----------|-------|-------------------|------------------------------------|
| AAA293700 | Mouse | Human, Mouse, Rat | Immunohistochemistry, Western Blot |

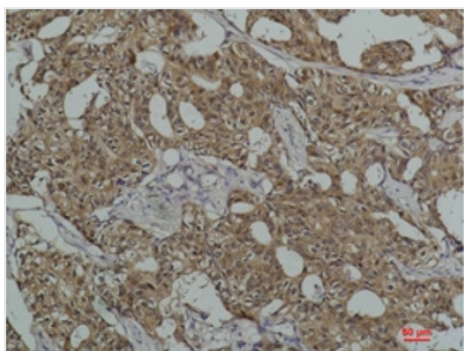
### PRODUCT SYNONYMS

HSC70; Monoclonal Antibody; HSC70 Monoclonal Antibody (8G7); Heat shock cognate 71 kDa protein (Heat shock 70 kDa protein 8); anti-HSC70 antibody

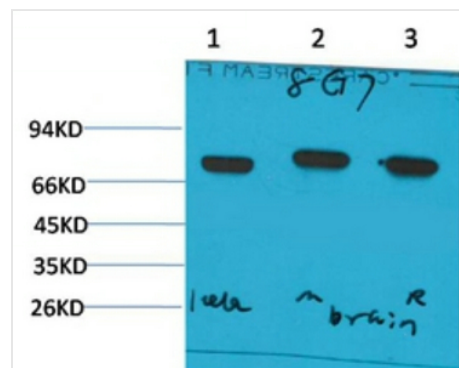
### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                             |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Mouse                                                                                                                                                                                                                                       |
| Reactivity                                      | Human, Mouse, Rat                                                                                                                                                                                                                           |
| Clonality                                       | Monoclonal                                                                                                                                                                                                                                  |
| Clone Number                                    | 8G7                                                                                                                                                                                                                                         |
| Form/Format                                     | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.                                                                                                                                                               |
| Applicable Applications for anti-HSC70 antibody | IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                                                                                               |
| Cellular Location                               | Cytoplasm. Melanosome. Nucleus, nucleolus. Cell membrane. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Translocates rapidly from the cytoplasm to the nuclei, and especially to the nucleoli, upon heat shock |
| Tissue Location                                 | Ubiquitous                                                                                                                                                                                                                                  |
| Preparation and Storage                         | Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.                                                                                       |

### IMAGES


**Application Data**

Dilution: Western Blot: 1/500 - 1/2000.IHC-p:1:50-300. Not yet tested in other applications.


**WB (Western Blot)**

Dilution: Western Blot: 1/500 - 1/2000.IHC-p:1:50-300. Not yet tested in other applications.

ADDITIONAL INFORMATION

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|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-HSC70 antibody | 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 (PubMed:21150129, PubMed:21148293, PubMed:24732912, PubMed:27916661, PubMed:23018488). This is achieved through cycles of ATP binding, ATP hydrolysis and ADP release, mediated by co-chaperones (PubMed:21150129, PubMed:21148293, PubMed:24732912, PubMed:27916661, PubMed:23018488, PubMed:12526792). The co-chaperones have been shown to not only regulate different steps of the ATPase cycle of HSP70, but they also have an individual specificity such that one co-chaperone may promote folding of a substrate while another may promote degradation (PubMed:21150129, PubMed:21148293, PubMed:24732912, PubMed:27916661, PubMed:23018488, PubMed:12526792). The affinity of HSP70 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. HSP70 goes through repeated cycles of ATP hydrolysis and nucleotide exchange, which permits cycles of substrate binding and release. The HSP70-associated co-chaperones are of three types: J-domain co-chaperones HSP40s (stimulate ATPase hydrolysis by HSP70), the nucleotide exchange factors (NEF) such as BAG1/2/3 (facilitate conversion of HSP70 from the ADP-bound to the ATP-bound state thereby promoting substrate release), and the TPR domain chaperones such as HOPX and STUB1 (PubMed:24318877, PubMed:27474739, PubMed:24121476, PubMed:26865365). Plays a critical role in mitochondrial import, delivers preproteins to the mitochondrial import receptor TOMM70 (PubMed:12526792). Acts as a repressor of transcriptional activation. Inhibits the transcriptional coactivator activity of CITED1 on Smad-mediated transcription. Component of the PRP19-CDC5L complex that forms an integral part of the spliceosome and is required for activating pre-mRNA splicing. May have a scaffolding role in the spliceosome assembly as it contacts all other components of the core complex. Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes (PubMed:10722728, PubMed:11276205). Participates in the ER-associated degradation (ERAD) quality control pathway in conjunction with J domain-containing co-chaperones and the E3 ligase STUB1 (PubMed:23990462). Interacts with VGF-derived peptide TLQP-21 (PubMed:28934328). |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                                                                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 5729877                                                                                                                                                                                                                                          |
| NCBI GeneID                      | 3312                                                                                                                                                                                                                                             |
| NCBI Accession #                 | NP_006588.1                                                                                                                                                                                                                                      |
| NCBI GenBank Nucleotide #        | NM_006597.4                                                                                                                                                                                                                                      |
| UniProt Accession #              | P11142; Q9H3R6                                                                                                                                                                                                                                   |
| Molecular Weight                 | 70,898 Da                                                                                                                                                                                                                                        |
| NCBI Official Full Name          | heat shock cognate 71 kDa protein isoform 1                                                                                                                                                                                                      |
| NCBI Official Synonym Full Names | heat shock 70kDa protein 8                                                                                                                                                                                                                       |
| NCBI Official Symbol             | HSPA8                                                                                                                                                                                                                                            |
| NCBI Official Synonym Symbols    | LAP1; HSC54; HSC70; HSC71; HSP71; HSP73; NIP71; HSPA10                                                                                                                                                                                           |
| NCBI Protein Information         | heat shock cognate 71 kDa protein; LPS-associated protein 1; heat shock 70kd protein 10; heat shock cognate protein 54; constitutive heat shock protein 70; lipopolysaccharide-associated protein 1; N-myristoyltransferase inhibitor protein 71 |
| UniProt Protein Name             | Heat shock cognate 71 kDa protein                                                                                                                                                                                                                |
| UniProt Gene Name                | HSPA8                                                                                                                                                                                                                                            |
| UniProt Synonym Gene Names       | HSC70; HSP73; HSPA10                                                                                                                                                                                                                             |
| UniProt Entry Name               | HSP7C_HUMAN                                                                                                                                                                                                                                      |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)

Online datasheet: <https://stage.aaabiotech.com/monoclonal/hsc70-antibody-clone-8g7-immunohistochemistry-western-blot-elisa/293700>