**DESCRIPTION**

**Species Reactivity**: Human/Mouse/Rat  

**Specificity**: Detects the induced form of human and mouse HSP70/HSPA1A in Western blots. In Western blots, no cross-reactivity with the constitutively expressed HSC70 (HSP73) is detected.

**Source**: Monoclonal Mouse IgG2A Clone # 242707

**Purification**: Protein A or G purified from hybridoma culture supernatant

**Immunogen**: E. coli-derived recombinant human HSP70/HSPA1A  
Met1-Asp641  
Accession # NP_005336

**Formulation**: Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.  
*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.*

**APPLICATIONS**

**Please Note**: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th><strong>Recommended Concentration</strong></th>
<th><strong>Sample</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Western Blot</strong></td>
<td>0.1 µg/mL</td>
</tr>
<tr>
<td><strong>Immunohistochemistry</strong></td>
<td>8-25 µg/mL</td>
</tr>
<tr>
<td><strong>Simple Western</strong></td>
<td>0.5 µg/mL</td>
</tr>
</tbody>
</table>

**DATA**

**Western Blot**

Detection of Human and Mouse HSP70/HSPA1A by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line and NIH-3T3 mouse embryonic fibroblast cell line untreated (-) or treated (+) with a heat shock for 30 minutes with a 3 hour recovery. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human/Mouse/Rat HSP70/HSPA1A Monoclonal Antibody (Catalog # MAB1663), followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for HSP70/HSPA1A at approximately 70 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

**Immunohistochemistry**

HSP70/HSPA1A in Human Liver Cancer Tissue. HSP70/HSPA1A was detected in immersion fixed paraffin-embedded sections of human liver cancer tissue using Mouse Anti-Human/Mouse/Rat HSP70/HSPA1A Monoclonal Antibody (Catalog # MAB1663) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

**Simple Western**

Detection of Human HSP70/HSPA1A by Simple Western™. Simple Western lane view shows lysates of Jurkat human acute T cell leukemia cell line untreated (-) or treated (+) by heat shocked (HS), loaded at 0.2 mg/mL. A specific band was detected for HSP70/HSPA1A at approximately 70 kDa (as indicated) using 0.5 µg/mL of Mouse Anti-Human/Mouse/Rat HSP70/HSPA1A Monoclonal Antibody (Catalog # MAB1663). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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## PREPARATION AND STORAGE

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reconstitution</strong></td>
<td>Reconstitute at 0.5 mg/mL in sterile PBS.</td>
</tr>
<tr>
<td><strong>Shipping</strong></td>
<td>The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.</td>
</tr>
</tbody>
</table>
| **Stability & Storage** | Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
- 12 months from date of receipt, -20 to -70 °C as supplied.  
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.  
- 6 months, -20 to -70 °C under sterile conditions after reconstitution. |