

**DESCRIPTION**

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse and rat HSP60.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 264233
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human HSP60 Met1-Phe573 Accession # P10809
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

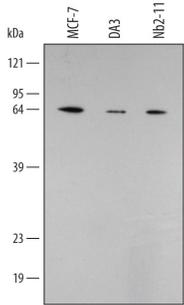
**APPLICATIONS**

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Simple Western</b>	10 µg/mL	See Below

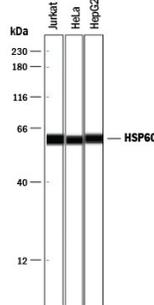
**DATA**

**Western Blot**



**Detection of Human/Mouse/Rat HSP60 by Western Blot.** Western blot shows lysates of MCF-7 human breast cancer cell line, DA3 mouse myeloma cell line, and Nb2-11 rat lymphoma cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human/Mouse/Rat HSP60 Monoclonal Antibody (Catalog # MAB1800) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for HSP60 at approximately 62 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

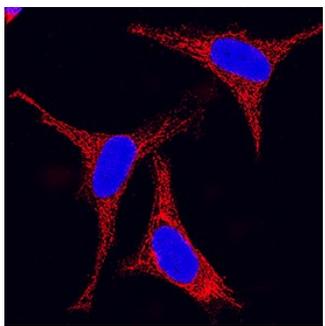
**Simple Western**



**Detection of Human HSP60 by Simple Western™.** Simple Western lane view shows lysates of Jurkat human acute T cell leukemia cell line, HeLa human cervical epithelial carcinoma cell line, and HepG2 human hepatocellular carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for HSP60 at approximately 60 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human/Mouse/Rat HSP60 Monoclonal Antibody (Catalog # MAB1800). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



**Immunocytochemistry**



**HSP60 in HeLa Human Cell Line.** HSP60 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human/Mouse/Rat HSP60 Monoclonal Antibody (Catalog # MAB1800) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Heat shock proteins (HSPs) are a family of highly conserved stress response proteins. Heat shock proteins function primarily as molecular chaperones by facilitating the folding of other cellular proteins, preventing protein aggregation or targeting improperly folded proteins to specific degradative pathways. HSPs are typically expressed at low levels under normal physiological conditions but are dramatically upregulated in response to cellular stress. Heat Shock Protein 60 (HSP60), also known as Chaperonin 60 (CPN60), is a mitochondrial matrix protein belonging to a highly conserved family of molecular chaperone and stress response proteins. HSP60 plays a role in stabilizing and refolding proteins in response to heat-shock or other cellular stress. Full length human HSP60 is 98% identical to mouse and rat HSP60.