

## DESCRIPTION

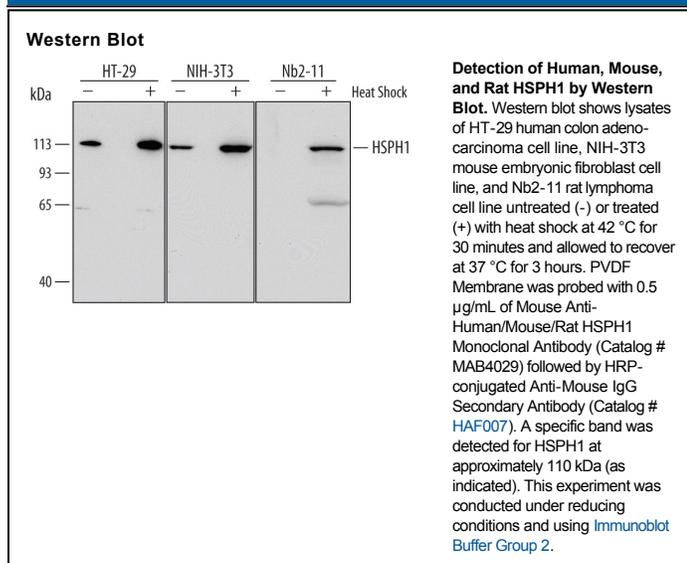
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse, and rat HSPH1 in Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 531104
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human HSPH1 Lys388-Glu505 Accession # Q92598
<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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.5 µg/mL	See Below

## DATA



## 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

The heat shock proteins (HSPs) are a highly conserved family of stress response proteins. HSPs function primarily as molecular chaperones, facilitating the folding of other cellular proteins, preventing protein aggregation, or targeting improperly folded proteins to specific degradative pathways. Heat Shock Proteins are ubiquitously expressed in all organisms. They are induced in response to various types of environmental stresses like heat, cold, and oxygen deprivation. Heat shock protein H1 (HSPH1), also known as HSP105 and HSP110, exists as two isoforms, α and β. HSPH1 α consists of 858 amino acids whereas HSPH1 β has 814 amino acids. α and β have calculated molecular weights of 96.4 kDa and 92 kDa, respectively, but an apparent molecular weight of 105-110 kDa in SDS-PAGE. HSPH1 acts as a chaperone to prevent thermal aggregation in mammalian cells. HSPH1 α and β isoforms share 94% identity. Rat HSPH1 has 92% and 97% identity to human and mouse HSPH1, respectively.