

Hsc70 (Hsp73) Polyclonal Antibody

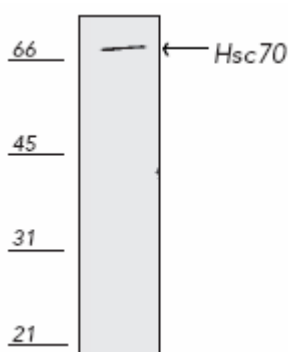
Product Specifications	
Catalog Number:	SPA-816
Host:	Rabbit
Species Reactivity:	Human, mouse, rat, cow, dog, guinea pig, hamster, monkey, pig, rabbit, and sheep
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB⁶⁻⁸: 1:1,000 (Colorimetric)
Predicted m.w.:	~73 kDa
Concentration:	See product label
Purification:	Protein A Affinity
Format:	PBS, pH 7.2, 0.09% azide, 50% glycerol
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Synthetic peptide derived from the sequence of human Hsc70 (Hsp73) ¹ ; sequence identical to rat, mouse, hamster, and cow
Related Products:	
EKS-700B	Hsp70 ELISA Kit
SPP-751	Hsc70 (Hsp73) Recombinant Protein
LYC-HL101	HeLa Cell Lysate (Heat Shocked)
SAB-301	Goat anti-Rabbit IgG Polyclonal Antibody, AP Conjugate
SPA-815	Hsc70 (Hsp73) Monoclonal Antibody (1B5)

Background:

The 70 kDa heat shock protein Hsp70 belongs to the Hsp70 family of highly-related protein isoforms ranging in size from 66 kDa to 78 kDa. Hsc70 shares close biochemical and biological ties to Hsp70, and also belongs to the Hsp70 family. These proteins include cognate members found within major intracellular compartments and highly inducible isoforms predominantly cytoplasmic or nuclear in distribution². Members of the Hsp70 family function as molecular chaperones involved in such cellular functions as protein folding, transport, maturation and degradation, operating in an ATP-dependent manner. The molecular chaperones of the Hsp70 family recognize and bind to nascent polypeptide chains or partially folded intermediates of proteins, preventing their aggregation and misfolding, and the binding of ATP triggers a critical conformational change leading to the release of the bound substrate protein³. Data demonstrates that with a ubiquitin-like domain at its amino terminus and its association with the 26S proteasome in HeLa cells, Bag-1 modulates the chaperone activity of Hsc70 and Hsp70. These findings reveal Bag-1's role as a physical link between the Hsc70/Hsp70 chaperone system and the proteasome⁴. Experimental data also shows that the ATPase domain and the substrate binding domain of Hsd70 cooperate to form a co-chaperone-chaperone complex with the synaptic vesicle cysteine string protein (csp), essential for normal neurotransmitter release⁵.

References:

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2. Tavaría, M., *et al.* (1996) *Cell Stress Chaperones* **1**, 23-28.
3. Fink A.L. (1999) *Physiol Rev.* **79**, 425-449.
4. Luders, J., *et al.* (2000) *J Biol Chem* **275**, 4613-4617.
5. Stahl B., *et al.* (1999) *Eur J Cell Biol.* **78**, 375-381.
6. Ohguro, H., *et al.* (1999) *Invest Ophthal Vis Sci* **40**, 3160-3167.
7. Riedl, P., *et al.* (2002) *J Immunol.* **169**, 1251-1260.
8. Doong, H., *et al.* (2003) *J Biol Chem.* **278**, 28490-28500.



Western blot analysis of human HeLa (heat shocked) cell lysate, probed with Hsc70 (Hsp73) Polyclonal Antibody