HSC70/HSP73 polyclonal antibody

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 distribution. 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 protein. Data demonstrates that with a ubiquitin-like domain at its amino terminus and its association with the 26S proteosome 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 proteasome. 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 release.

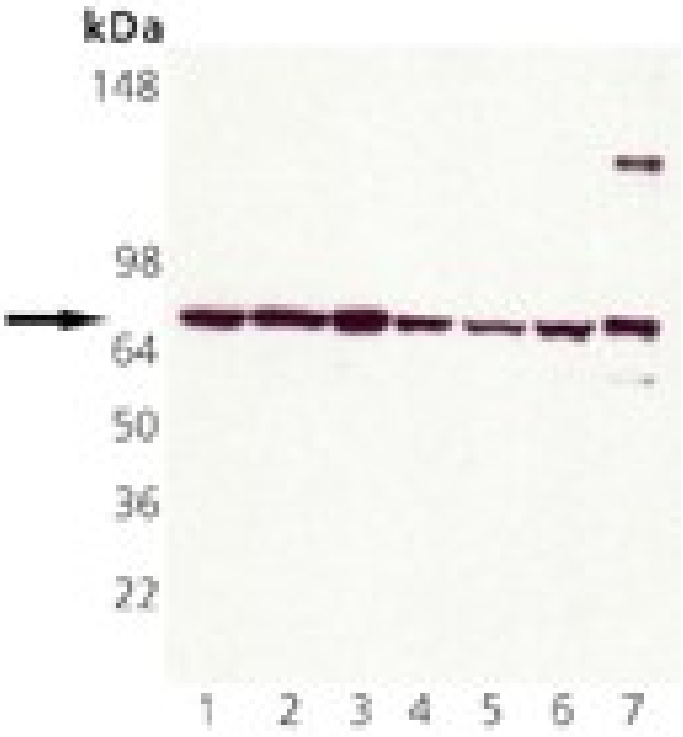
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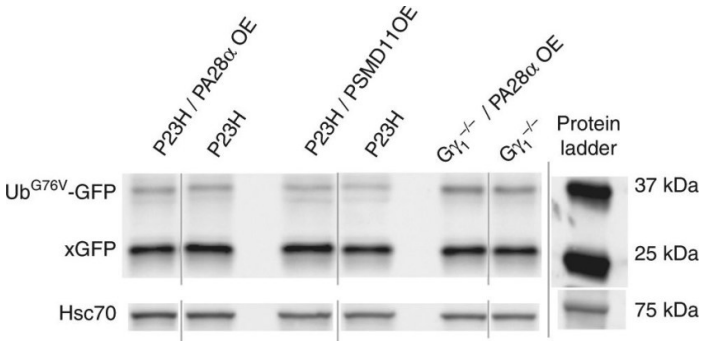
Ordering Information Order Online »

ADI-SPA-819-D	50µg
ADI-SPA-819-F	200µg

Manuals, SDS & CofA View Online »



Western blot analysis of HSC70 (HSP73) pAb: Lane 1: HeLa Cell Lysate, Lane 2: HeLa Cell Lysate (Heat Shocked), Lane 3: PC -12 Cell Lysate, Lane 4: PC -12 Cell Lysate (Heat Shocked), Lane 5: 3T3 Cell Lysate, Lane 6: 3T3 Cell Lysate (Heat Shocked), Lane 7: HSC70 (HSP73) Recombinant Protein (Prod. No. ADI-SPP-751).



Overexpression of PA28α or PSMD11 does not affect accumulation of the UbG76V-GFP reporter. The UbG76V-GFP reporter was detected in retinal lysates from 1-month-old mice of indicated genotypes (30 µg total protein/lane) using an anti-GFP antibody; Hsc-70 was used as a loading control. The band representing the non-proteolyzed non-fluorescent GFP product co-accumulating with this reporter in cells suffering from proteasomal insufficiency10,58 is labeled as xGFP. Data are taken from one of the four similar experiments

Image collected and cropped by CiteAb under a CC-BY license from the following publication: Increased proteasomal activity supports photoreceptor survival in inherited retinal degeneration. *Nat Commun* (2018)

Handling & Storage

Handling	Avoid freeze/thaw cycles.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Heat shock protein 70, Hsc70, Hsp73
Application	WB
Application Notes	Detects a band of ~73kDa by Western blot.
Formulation	Liquid. In PBS, pH 7.2, containing 50% glycerol and 0.09% sodium azide.
Host	Rabbit
Immunogen	Synthetic peptide corresponding to the sequence near the C-terminus of human HSC70 (HSP73). The sequence is completely conserved in rat, mouse, bovine, dog, chicken, monkey, and frog.
Purity Detail	Protein A affinity purified.
Recommendation Dilutions/Conditions	Western Blot (1:1,000, colorimetric)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Purified from rabbit serum.
Species Reactivity	Human, Mouse, Rat
UniProt ID	P11142
Worry-free Guarantee	**This antibody is covered by our Worry-Free Guarantee .**

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