HSC70/HSP70 monoclonal antibody (BB70)

The Hsp70 family of heat shock protiens contains multiple homologs ranging in size from 66-78 kDa, and are the eukaryotic equivalents of the bacterial DnaK. The most studied Hsp70 members include the cytosolic stress-induced Hsp70 (Hsp72), the constitutive cytosolic Hsc70 (Hsp73), and the ER-localized BiP (Grp78). Hsp70 family members contain highly conserved N-terminal ATP-ase and C-terminal protein binding domains. Binding of peptide to Hsp70 is assisted by Hsp40, and stimulates the inherent ATPase activity of Hsp70, facilitating ATP hydrolysis and enhanced peptide binding. Hsp70 nucleotide exchange and substrate binding coordinates the folding of newly synthesized proteins, the re-folding of misfolded or denatured proteins, coordinates trafficking of proteins across cellular membranes, inhibits protein aggregation, and targets the degradation of proteins via the proteasomal pathway.

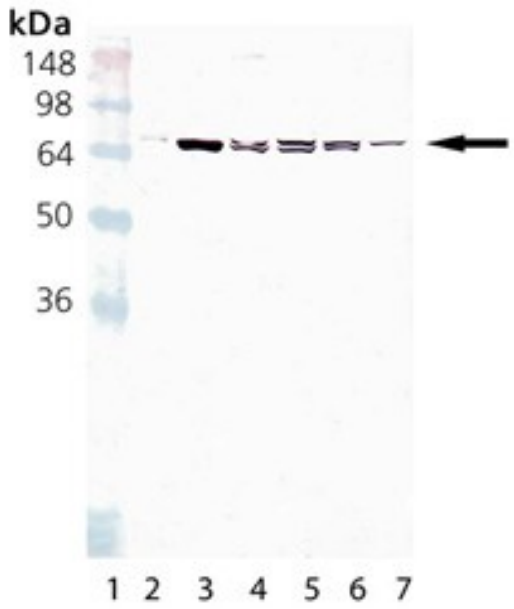
This antibody is covered by our Worry-Free Guarantee.

Citations: 31 View Online »

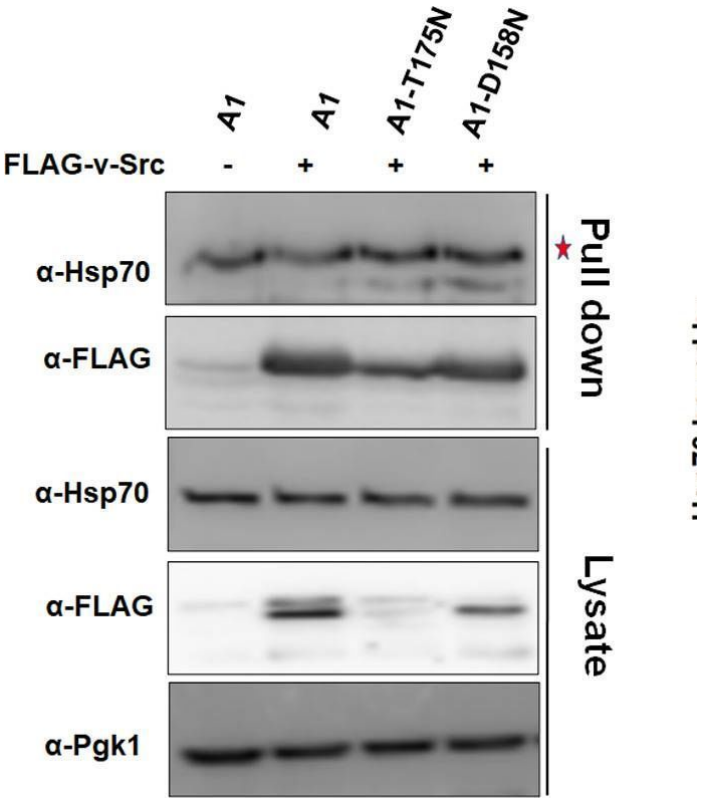
Ordering Information Order Online »

ADI-SPA-822-D	50µg
ADI-SPA-822-F	200µg

Manuals, SDS & CofA View Online »

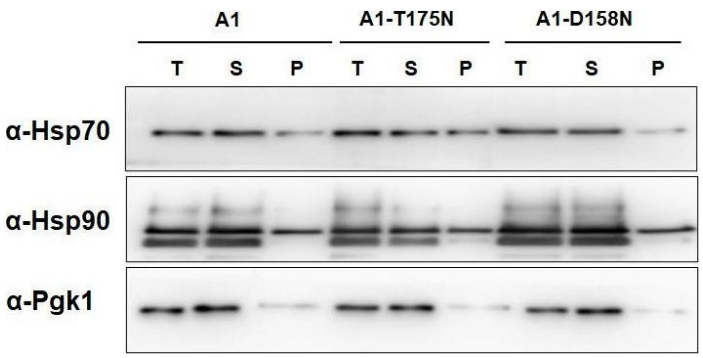


Western blot analysis of HSC70/HSP70 mAb (BB70) (Prod. No. ADI-SPA-822): Lane 1: MW marker, Lane 2:HSC70(HSP73) (Prod. No. ADI-SPP-751), Lane 3:HSP70(HSP72) (Prod. No. ADI-NSP-555), Lane 4:HeLa Cell Lysate (heat shocked)(Prod. No. ADI-LYC-HL101), Lane 5:PC-12 Cell Lysate (heat shocked)(Prod. No. ADI-LYC-PC101), Lane 6:RK-13 Cell Lysate (heat shocked), Lane 7: 3T3 Cell Lysate (heat shocked)(Prod. No. ADI-LYC-3T101)



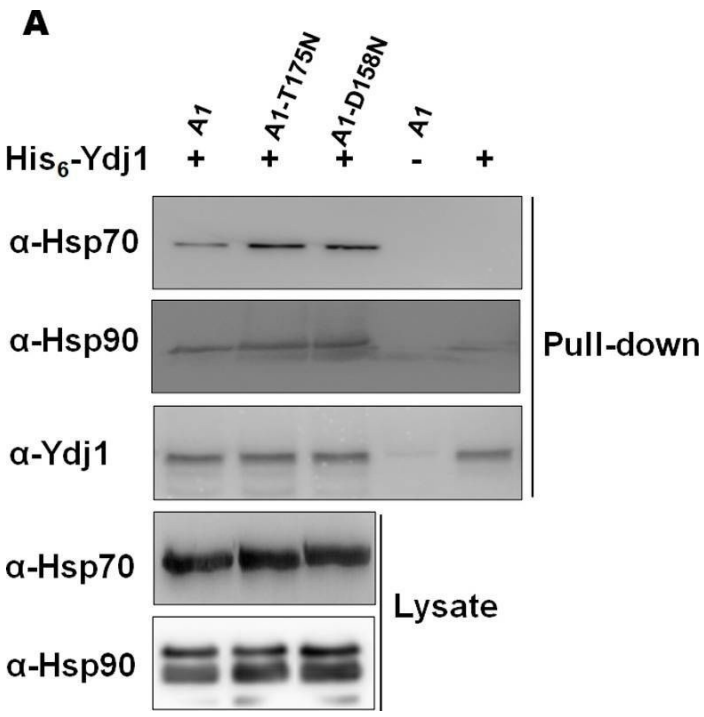
v-Src interaction with Ssa1-T175N and Ssa1-D158N is stronger than with Ssa1.The indicated strains were grown in selective SGal media for v-Src expression. The cellular lysate was incubated with anti-FLAG antibodies immobilized beads. The immunoprecipitated proteins were probed with indicated antibodies. The supernatant was used as a control to examine protein level in A1, A1-T175N and A1-D158N strains. Panel towards right depicts quantification of respective western blots. Star represents nonspecific band. Error bars represent standard error from 3 different biological replicates.

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A1-T175N and A1-D158N show reduced v-Src kinase activity.(A) Indicated strains were grown in SGal liquid media for 6h. The whole cell lysate (T) was prepared, and fractionated into supernatant (S) and Pellet (P). All fractions were probed with anti-FLAG or anti-phosphotyrosine antibody. Panel towards right depicts quantification from immunoblots. (B) The Hsp70, Hsp90 or Pgk1 was probed with anti-Hsp70, anti-Hsp90 or anti-Pgk1 antibody respectively. Pgk1 is the loading control and is same for 2A and 2B. Error bars represent standard error from 3 different biological replicates.

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Hsp70 mutants show increased affinity to Ydj1.(A) Purified His6-Ydj1 was immobilized over Co2+-NTA beads and incubated with cellular lysate from indicated strains. The bound proteins were eluted and probed with anti-Hsp70, anti-Hsp90 and anti-Ydj1 antibodies. (B) BLI studies to monitor interaction between Ssa Hsp70 and Ydj1. Ydj1 (0.75μM) was immobilized over the biosensor surface, and Ssa Hsp70 (wt Ssa1 or its mutants) was used as analyte. The binding was monitored in the presence of ATP.

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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	IHC, IP, WB
Application Notes	Detects a band of ~72kDa by Western blot.
Clone	BB70
Formulation	Liquid. In PBS, pH 7.2, containing 50% glycerol and 0.09% sodium azide.
GenBank ID	J02579
Host	Mouse
Immunogen	Chicken Hsp70/Hsp90 complex.
Isotype	IgG2a
Purity Detail	Protein G 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 mouse ascites.
Species Reactivity	Drosophila, Housefly, Human, Mouse, Rabbit, Rat, Sponge, Yeast

UniProt ID P08106

Worry-free Guarantee **This antibody is covered by our Worry-Free Guarantee .**

Last modified: May 29, 2024

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