HSC70 (plant) monoclonal antibody (1D9)

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.

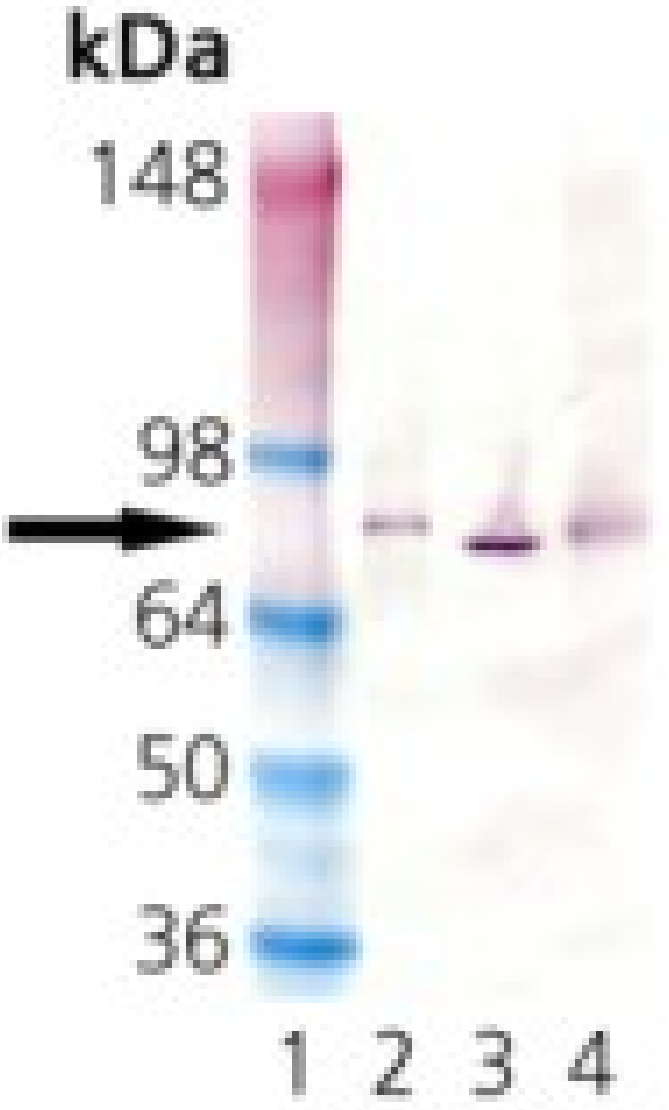
This antibody is covered by our Worry-Free Guarantee.

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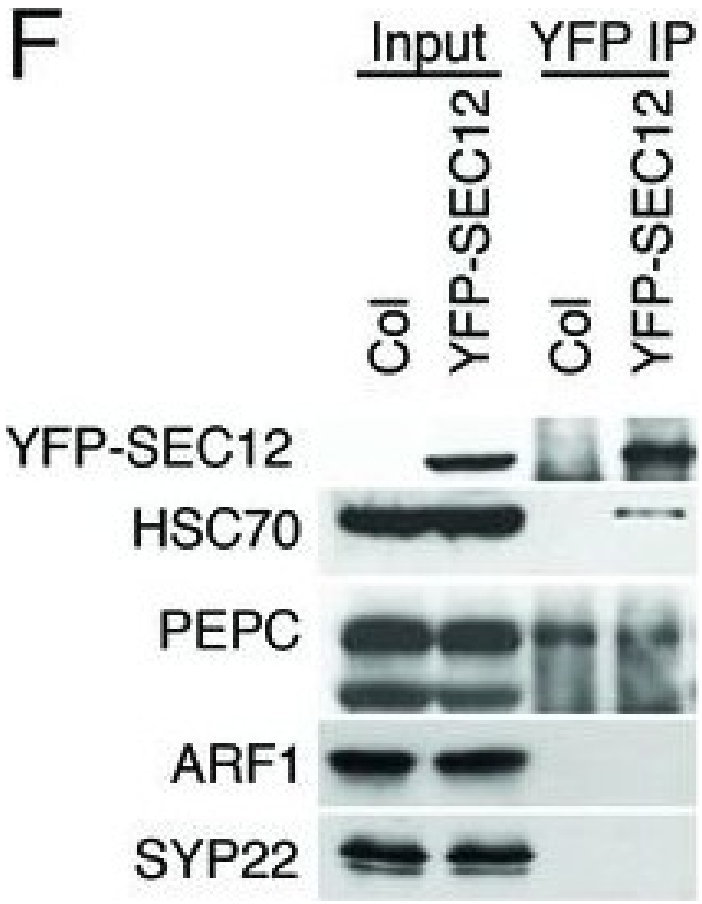
Ordering Information Order Online »

ADI-SPA-818-D	50µg
ADI-SPA-818-F	200µg

Manuals, SDS & CofA View Online »



Western blot analysis of HSC70 (plant, ER, BiP): Lane 1: MW marker, Lane 2: Apple, Lane 3: Carrot, Lane 4: Spinach.



Analyses of sRNA-seq libraries.(A) Hierarchical clustering analysis showing the degree of similarity among the sRNA-seq libraries. Sample-to-sample distances were calculated based on log-transformed normalized read counts. The biological replicates of each sample type were highly reproducible. T: total extract; M: microsome; TP: total polysome; MBP: membrane-bound polysome; T27: sRNA-seq from total extracts in ago1-27; M27: sRNA-seq from microsomes in ago1-27. The other samples were from wild type. The numbers after the underscore represent biological replicates. (B) Size distribution of sRNAs in the indicated samples. T: total extract; M: microsome; ER-IP: ER immunoprecipitation. Note that normalization was performed against total r/t/snRNA-depleted reads. (C) The composition of sRNAs in each of three size classes. Each column represents a biological replicate. Note that normalization was performed against total r/t/snoRNA-depleted reads. (D) Western blotting using anti-GFP antibodies to show that YFP-SEC12 was in the microsomal fraction. (E) Topology mapping showing that the YFP tag of the ER transmembrane protein YFP-SEC12 was on the cytosolic side. (F) Western blotting showing that ER immunoprecipitation (using anti-GFP antibodies with the YFP-SEC12 transgenic line) contained two ER markers (YFP-SEC12 and HSC70) but not markers for Golgi (ARF1) or endosomes (SYP22). PEPC is a soluble protein. Col, wild type (without the YFP-SEC12 transgene). (G) A scatter plot showing the depletion of Pol IV-dependent siRNAs

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	IP, WB
Application Notes	Detects a band of ~78kDa by Western blot.
Clone	1D9
Formulation	Liquid. In PBS containing 50% glycerol and 0.09% sodium azide.
Host	Mouse
Immunogen	Recombinant spinach Hsc70 (Hsp73).
Isotype	IgG1
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	Plant, Porcine
Worry-free Guarantee	**This antibody is covered by our Worry-Free Guarantee .**

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