HSP70B’ monoclonal antibody (165f)

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.

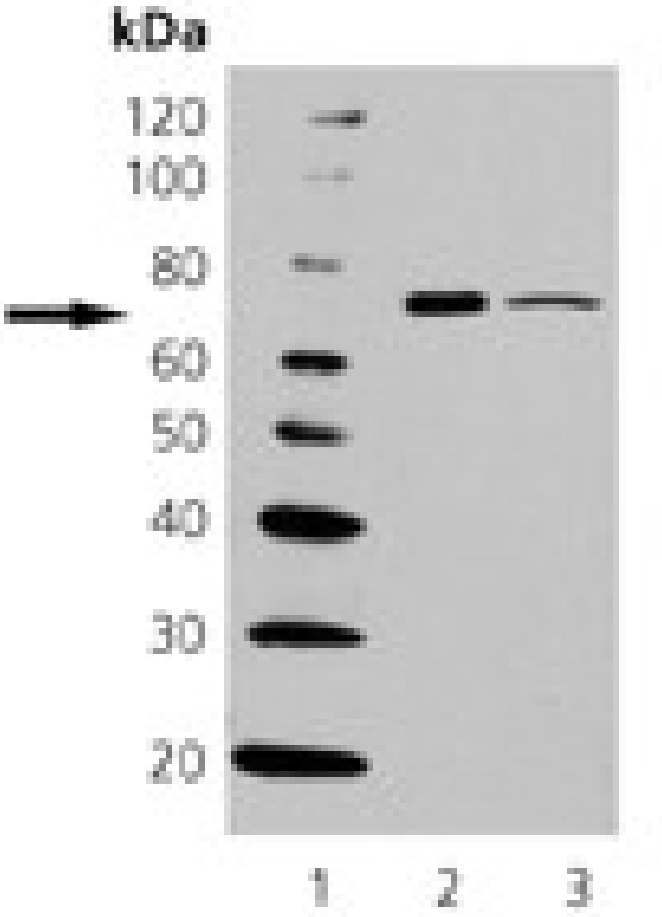
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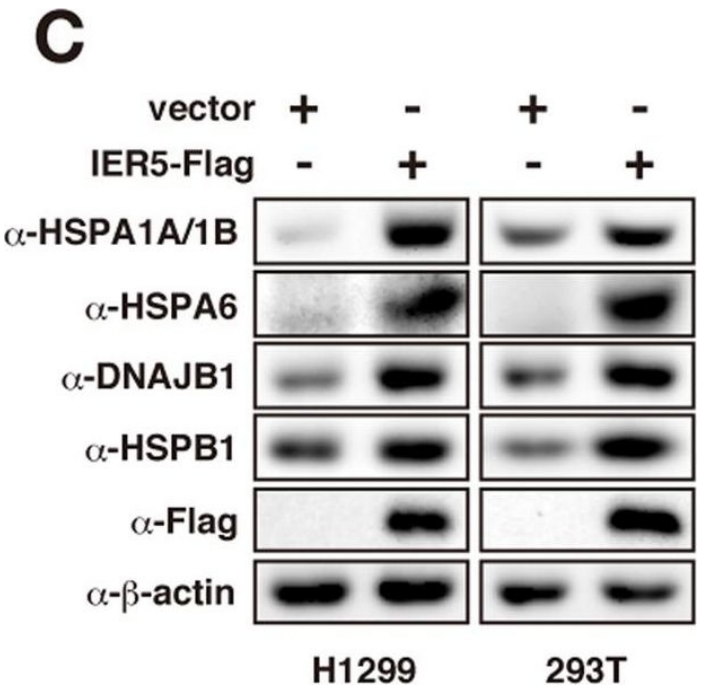
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ADI-SPA-754-D	50µg
ADI-SPA-754-F	200µg

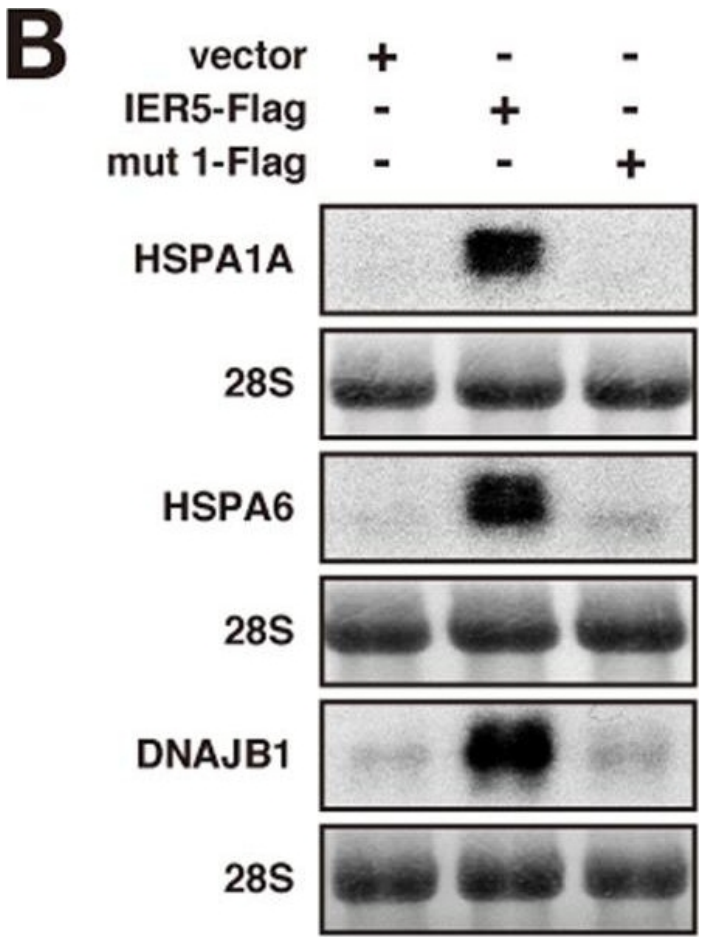
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HSP family genes are induced by IER5.(A) H1299 or 293T cells were transfected with control vector or an IER5 expression vector. Cells were harvested 21 hrs or 27 hrs post-transfection and microarray expression analysis was performed. The table shows the HSP family genes, among the genes induced by IER5. (B) H1299 cells were transfected with control, IER5-Flag or mutant IER5-Flag expression vectors (representative image of mut 1 is shown in Fig. S1). Cells were harvested 27 hrs post-transfection, and mRNA expressions of the HSP family genes were analyzed by Northern blotting. (C) H1299 and 293T cells were transfected with control vector or IER5-Flag expression vector, and cells were harvested 24 hrs post-transfection. Expressions of the HSP family proteins were analyzed by Western blotting. (D–F) Control or IER5-targeting siRNAs were introduced into OE33 cells. Cells were harvested 52 hrs post-transfection. Expression of IER5 (D,F) and HSPA1A (E,F) were analyzed by quantitative RT-PCR (D,E) and Western blotting (F). (**$p < 0.01$). (G) The promoter regions of HSPA1A, HSPA1B and HSPA6 were inserted into the luciferase reporter plasmid containing a minimal promoter, and assayed 24 hrs post-transfection. Experiments were run in triplicate, and data are represented as the mean-fold activation ±SD. (H) Serially deleted regions of the HSPA1A promoter were analyzed as in (G). Numbers indicate the position of the 5′ most nucleotide relative to the transcription initiation site. A heat shock element (HSE), to which HSF1 binds, was found between positions −132 and −109.

Image collected and cropped by CiteAb under a CC-BY license from the following publication: IER5 generates a novel hypo-phosphorylated active form of HSF1 and contributes to tumorigenesis. *Sci Rep* (2016).



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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	Hsp70B prime, Heat shock protein 70 B’
Application	WB
Application Notes	Detects a band of ~70kDa by Western blot.
Clone	165f
Formulation	Liquid. In PBS, pH 7.2, containing 50% glycerol and 0.09% sodium azide.
Host	Mouse
Immunogen	Synthetic peptide corresponding to the sequence near the C-terminus of human HSP70B’.
Isotype	IgG1
Purity Detail	Protein G affinity purified.
Recommendation Dilutions/Conditions	Western Blot (1:1,000, ECL)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	Human
Technical Info / Product Notes	US Patent No. 7,326,574.
UniProt ID	P17066

Worry-free Guarantee

This antibody is covered by our Worry-Free Guarantee .

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