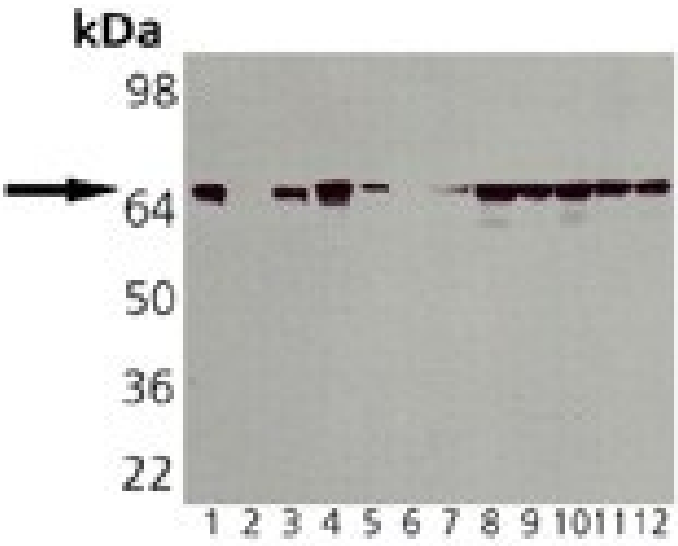
HSP70/HSP72 monoclonal antibody (C96F3-3)

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 Hsp70 (or Hsc70) cooperate to form a co-chaperone-chaperone complex with the synaptic vesicle cysteine string protein (csp), essential for normal neurotransmitter release.

This antibody is covered by our Worry-Free Guarantee.

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Western blot analysis of HSP70 mAb: Lane 1: HSP70 Recombinant Human Protein, Lane 2: HSP70B' Recombinant Human Protein, Lane3: HSP70-A1 Recombinant Mouse Protein, Lane 4: HSP70 Recombinant Chinook Salmon Protein, Lane 5: HSC70 Recombinant Bovine Protein, Lane 6: HSC70 (ATPase Fragment) Recombinant Bovine Protein, Lane 7: HeLa Cell Lysate, Lane 8: HeLa Cell Lysate, Heat Shocked, Lane 9: 3T3 Cell Lysate, Lane 10: 3T3 Cell Lysate, Heat Shocked, Lane 11: PC-12 Cell Lysate, Lane 12: PC-12 Cell Lysate, Heat Shocked

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	Hsp70, HspA1A, Heat shock protein 70, HspA1B, Hsp72
Application	WB
Application Notes	Detects a band of ~70kDa by Western blot.
Clone	C96F3-3
Formulation	Liquid. In PBS containing 50% glycerol and 0.09% sodium azide.
GenBank ID	M11717
Gene/Protein Identifier	NP_005336.3 (RefSeq), NM_005345 (RefSeq), 3303 (Entrez GeneID), 140550 (OMIM)
Host	Mouse
Immunogen	Native human Hsp70.
Isotype	IgG2b
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 hybridoma tissue culture supernatant.
Species Reactivity	Bovine, Fish, Human, Mouse, Rat

UniProt ID	P0DMV8 (HSPA1A), P0DMV9 (HSPA1B)

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