

Lot # XXXXX

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MATERIAL DATA SHEET

Anti-HSP70/HSPA1A Monoclonal Antibody Cat. # A-400

Heat shock proteins (HSPs) are a family of highly conserved stress response proteins. Heat shock proteins function primarily as molecular chaperones by facilitating the folding of other cellular proteins, preventing protein aggregation or targeting improperly folded proteins to specific degradative pathways. HSPs are typically expressed at low levels under normal physiological conditions, but are dramatically up-regulated in response to cellular stress. HSP70 (also known as HSPA1A, HSP70-1, and HSP72) is a 72 kDa member of the heat shock protein 70 family of proteins. HSP70 is required to target some misfolded proteins to the Ubiquitin E3 ligase CHIP (also known as Stub1) for subsequent ubiquitination.

Product Information

Quantity:	50 µg
Source:	Monoclonal Mouse IgG _{2A} Clone # 242707
Antigen:	Purified, recombinant human HSP70. Accession Number P08107.
Purification:	Protein A or G purified from hybridoma culture supernatant
Stock:	0.5 mg/mL in PBS, pH 7.4, 50% glycerol, 0.09% sodium azide

Use & Storage

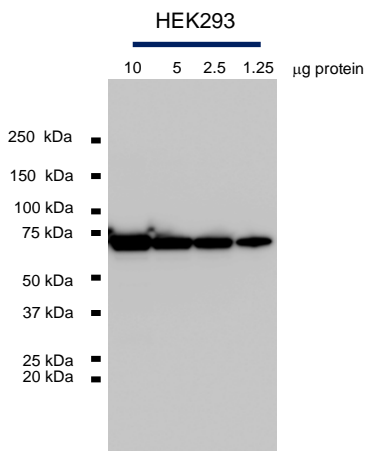
Specificity:	Detects the induced form of human and mouse HSP70/HSPA1A in Western blots. No cross reactivity with HSC70 (HSP73) is observed.
Use:	Recommended concentration for Western Blot is 0.1 µg/mL. Recommended concentration for Immunohistochemistry is 8-25µg/mL. Detects human, mouse and rat HSP70.
Storage:	Store at -20°C.

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Sample Western Blot Data



NP40-soluble proteins from human embryonic kidney (HEK) cells were diluted in reducing SDS-PAGE Sample Buffer prior to separation on 4-20% gradient gels. Western blots utilizing PVDF membranes were developed using anti-HSP70 (A-400 antibody) at 0.1 μ g/ml and HRP-labeled anti-mouse (R&D Systems # HAF007) secondary at 1:2000 dilution. A single band of appropriate size was detected in the HEK293 cell extract.

Literature

References: Bhatnagar S., *et al.* (2007) Blood **110**: 3234-3244.

For Laboratory Research Use Only, Not For Use in Humans

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