

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects the induced form of human and mouse HSP70/HSPA1A in Western blots. No cross reactivity with HSC70 (HSP73) is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 242707
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human HSP70/HSPA1A Met1-Asp641
Formulation	Supplied as a solution in PBS containing Glycerol and Sodium Azide. See Certificate of Analysis for details.

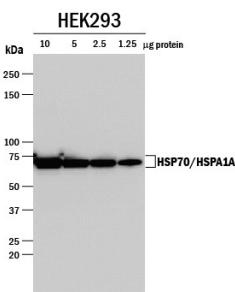
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	No Sample Info

DATA

Western Blot



Detection of Human HSP70/HSPA1A by Western Blot. Western blot shows lysates of HEK293 human embryonic kidney cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human/Mouse/Rat HSP70/HSPA1A Monoclonal Antibody (Catalog # A-400) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for HSP70/HSPA1A at approximately 70-75 kDa (as indicated). This experiment was conducted under reducing conditions and using **Immuno blot Buffer Group 1**.

PREPARATION AND STORAGE

Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 3 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

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 SPECIFIC NOTICES

* Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to SDS for additional information and handling instructions.