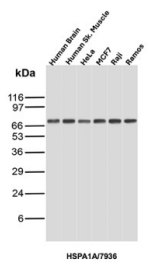
HSPA1A Antibody / Heat Shock Protein 70 1A Antibody [clone HSPA1A/7936] (V5143)

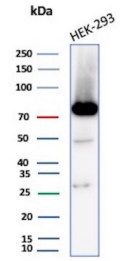
Catalog No.	Formulation	Size
V5143-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5143-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5143SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

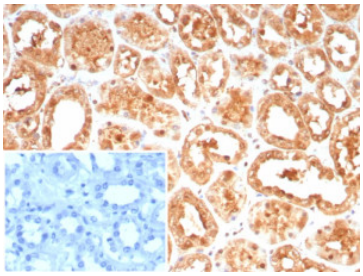
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	HSPA1A/7936
Purity	Protein A/G affinity
UniProt	P0DMV8.1
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This HSPA1A Antibody / Heat Shock Protein 70 1A Antibody is available for research use only.



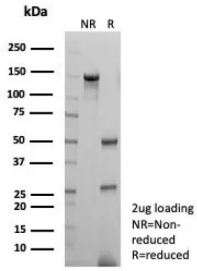
HSPA1A Antibody HSPA1A/7936 Detection in Human Tissues and Cell Lines WB. Western blot analysis of human brain, human skeletal muscle, HeLa, MCF7, Raji and Ramos lysates using HSPA1A Antibody clone HSPA1A/7936 shows a strong, discrete band at approximately 70 kDa in all six samples, consistent with the expected molecular weight of HSPA1A. Minimal background and the consistent band size across tissue and cell lysates demonstrate clean Western blot detection of HSPA1A.



HSPA1A Antibody HSPA1A/7936 Detection in HEK-293 Cells WB. Western blot analysis of human HEK-293 cell lysate using HSPA1A Antibody clone HSPA1A/7936 shows a strong predominant band at approximately 70-75 kDa, consistent with the expected molecular weight of HSPA1A. Weaker lower molecular weight bands are also visible at approximately 50 kDa and 27-30 kDa.



HSPA1A Antibody HSPA1A/7936 Staining of Human Kidney IHC. Immunohistochemistry testing of FFPE human kidney tissue with HSPA1A Antibody clone HSPA1A/7936 shows strong brown staining throughout the renal tubular epithelium, while the inset secondary antibody negative control shows minimal background signal. HIER was performed by boiling tissue sections in pH 9, 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before antibody testing.



Purified HSPA1A Antibody HSPA1A/7936 SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free HSPA1A Antibody clone HSPA1A/7936 under non-reducing (NR) and reducing (R) conditions. The non-reduced antibody migrates predominantly above 100 kDa, while reduction produces the expected immunoglobulin heavy and light chain bands at approximately 50 and 25 kDa, respectively, confirming antibody integrity and purity.

Description

HSPA1A Antibody / Heat Shock Protein 70 1A Antibody recognizes HSPA1A, a stress-inducible member of the HSP70 molecular chaperone family. HSPA1A, commonly called HSP70-1A, is strongly induced in response to conditions that disturb protein homeostasis. By assisting the folding and stabilization of proteins, HSPA1A contributes to cellular protection against heat shock, oxidative stress and other environmental or physiological challenges.

HSPA1A is an approximately 70 kDa protein containing an N-terminal ATPase domain and a C-terminal substrate-binding domain. ATP binding and hydrolysis regulate conformational changes that control the association and release of client proteins. This chaperone cycle is further regulated by co-chaperones that influence HSPA1A activity and substrate selection. Through these interactions, HSPA1A helps prevent inappropriate aggregation of unfolded proteins and promotes the recovery of proteins capable of returning to a functional conformation.

Heat Shock Protein 70 1A also participates in broader cellular protein quality-control systems. Proteins that cannot be successfully refolded may be directed toward degradation, linking HSPA1A activity with pathways responsible for maintaining proteome integrity. HSPA1A can additionally influence signaling mechanisms associated with apoptosis and cell survival, allowing its increased expression to help cells withstand otherwise damaging conditions.

HSPA1A has received considerable attention in cancer research because malignant cells frequently encounter hypoxia, oxidative stress, nutrient limitation and increased demands on protein synthesis and folding. Elevated HSP70 family activity can provide additional chaperone capacity under these conditions and has been investigated in relation to tumor cell survival, treatment resistance and adaptation to cellular stress.

NSJ Bioreagents offers this mouse monoclonal HSPA1A Antibody as clone HSPA1A/7936. The antibody was generated using a recombinant portion of human HSPA1A within amino acids 200-400. Because HSPA1A and HSPA1B are exceptionally similar proteins and the precise epitope recognized by clone HSPA1A/7936 is not disclosed, the immunogen information alone should not be interpreted as demonstrating exclusion of HSPA1B. A HSPA1A Antibody

provides a research tool for investigating heat shock protein biology, proteostasis and cellular responses to stress.

Researchers investigating HSPA1A expression, proteotoxic stress and cancer-associated stress responses can explore related targets on our Cancer Marker Antibodies page.

Application Notes

Optimal dilution of the HSPA1A Antibody / Heat Shock Protein 70 1A Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 200-400) from the human protein was used as the immunogen for the HSPA1A antibody.

Storage

Aliquot the HSPA1A antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

HSP70-1A antibody, Heat shock 70 kDa protein 1A antibody, Heat shock protein 70 1A antibody, HSP72 antibody

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