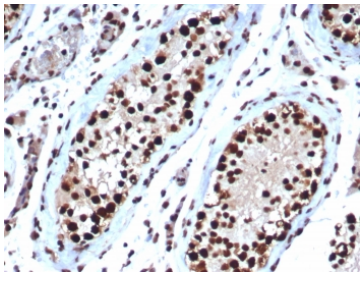
HSPA1B Antibody / Heat Shock Protein 70 1B Antibody [clone HSPA1B/7623] (V5116)

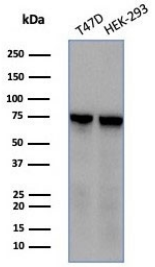
Catalog No.	Formulation	Size
V5116-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5116-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5116SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

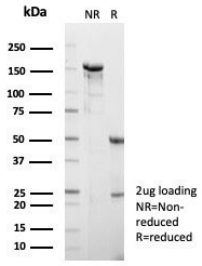
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	HSPA1B/7623
Purity	Protein A/G affinity
UniProt	P0DMV9
Localization	Cytoplasm, Nucleus
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This HSPA1B Antibody / Heat Shock Protein 70 1B Antibody is available for research use only.



HSPA1B Antibody HSPA1B/7623 Staining of Human Testis IHC. Immunohistochemistry testing of FFPE human testis tissue with HSPA1B Antibody clone HSPA1B/7623 shows strong brown immunoreactivity within the seminiferous tubules, with prominent cytoplasmic staining of germ cells. 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.



HSPA1B Antibody HSPA1B/7623 Detection in T-47D and HEK293 Cells WB. Western blot testing of human T-47D and HEK293 cell lysates with HSPA1B Antibody clone HSPA1B/7623 shows strong, discrete bands at approximately 70 kDa in both samples, consistent with the expected molecular weight of HSPA1B. The blot shows minimal background and clean detection in both human cell lines.



Purified HSPA1B Antibody HSPA1B/7623 SDS-PAGE. SDS-PAGE analysis of purified, BSA-free HSPA1B Antibody clone HSPA1B/7623 under non-reducing and reducing conditions demonstrates the expected electrophoretic profile of purified mouse IgG. Reduction produces the characteristic immunoglobulin heavy and light chain bands at approximately 50 and 25 kDa, respectively, supporting antibody integrity and purity.

Description

HSPA1B Antibody / Heat Shock Protein 70 1B Antibody recognizes HSPA1B, a stress-inducible member of the HSP70 molecular chaperone family. HSPA1B is closely related to HSPA1A and is commonly associated with the inducible HSP70 response that helps cells maintain protein homeostasis during environmental and physiological stress. Increased expression of these chaperones provides additional protein quality-control capacity when conditions disrupt normal protein folding.

HSPA1B encodes an approximately 70 kDa protein containing an N-terminal nucleotide-binding domain and a C-terminal substrate-binding domain. ATP binding and hydrolysis drive conformational changes that regulate the association and release of client proteins. Co-chaperones further control this cycle by modulating ATPase activity, nucleotide exchange and substrate interactions. Through these coordinated mechanisms, Heat Shock Protein 70 1B can recognize exposed hydrophobic regions of non-native proteins, suppress inappropriate aggregation and assist proteins capable of returning to functional conformations.

HSPA1B expression is associated with cellular adaptation to conditions such as heat shock, oxidative stress and other challenges to proteome integrity. The protein functions as part of a broader network of molecular chaperones and protein degradation systems that determines whether damaged proteins can be recovered or should be eliminated. These activities make inducible HSP70 proteins important components of the cellular proteotoxic stress response.

HSPA1B has also attracted interest in cancer biology because malignant cells can experience hypoxia, nutrient limitation, oxidative stress and increased demands on protein synthesis and folding. Enhanced HSP70 family activity may help cells tolerate these challenging conditions. HSPA1B and related inducible HSP70 proteins have consequently been investigated in the context of tumor cell survival, apoptosis, treatment response and adaptation to cellular stress.

NSJ Bioreagents offers this mouse monoclonal HSPA1B Antibody as clone HSPA1B/7623. The antibody was generated using a recombinant region of human HSPA1B within amino acids 400-600. Because HSPA1A and HSPA1B are exceptionally homologous and the precise epitope recognized by clone HSPA1B/7623 is not disclosed, the immunogen information alone does not demonstrate exclusion of HSPA1A. A HSPA1B Antibody provides a research tool for investigating inducible HSP70 biology, molecular chaperone activity, proteostasis and cellular responses to stress.

Researchers investigating HSPA1B expression, proteotoxic stress and cancer-associated stress responses can explore related targets on our Cancer Marker Antibodies page.

Application Notes

Optimal dilution of the HSPA1B Antibody / Heat Shock Protein 70 1B Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 400-600) from the human protein was used as the immunogen for the HSPA1B antibody.

Storage

Aliquot the HSPA1B antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

HSP70-1B antibody, HSP70-2 antibody, Heat shock 70 kDa protein 1B antibody, Heat shock protein 70 1B antibody, HSP72 antibody

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