Product Datasheet

HSPA1A Antibody

Catalog No: #32062

Package Size: #32062-1 50ul #32062-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

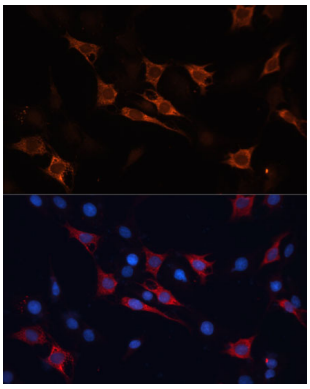
Description

Product Name	HSPA1A Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB,IHC,IF
Species Reactivity	Human,Mouse,Rat
Specificity	The antibody detects endogenous level of total HSPA1A protein.
Immunogen Type	Peptide
Immunogen Description	A synthetic peptide of human HSPA1A .
Target Name	HSPA1A
Other Names	HSP72; HSPA1; HSP70I; HSP70-1; HSP70-1A
Accession No.	Swiss-Prot:P08107NCBI Gene ID:3303
Uniprot	P08107
GeneID	3303;
SDS-PAGE MW	70KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

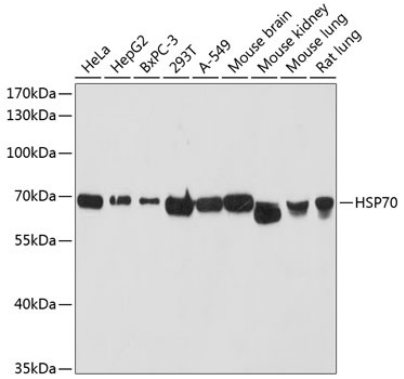
Application Details

WB□1:1000 - 1:3000IHC□1:50 - 1:200IF□1:50 - 1:200

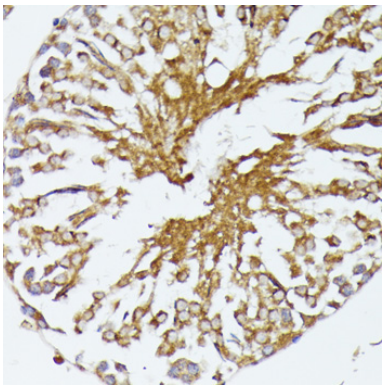
Images



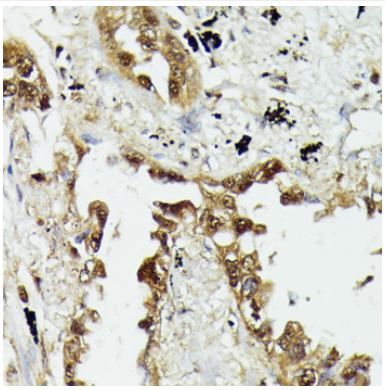
Immunofluorescence analysis of C6 cells using HSP70 Polyclonal at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



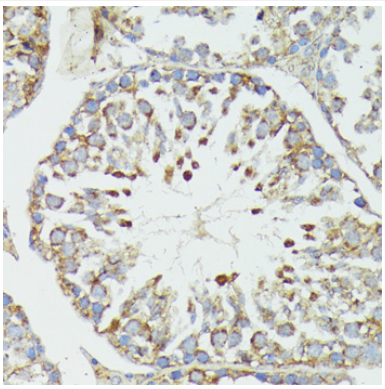
Western blot analysis of extracts of various cell lines, using HSP70 at 1:3000 dilution.



Immunohistochemistry of paraffin-embedded rat testis using HSP70 at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded human lung cancer using HSP70 at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded mouse testis using HSP70 at dilution of 1:100 (40x lens).

Background

HSPA1A and HSP90 are molecular chaperones expressed constitutively under normal conditions to maintain protein homeostasis and are induced upon environmental stress (1). Both HSPA1A and HSP90 are able to interact with unfolded proteins to prevent irreversible aggregation and catalyze the refolding of their substrates in an ATP- and co-chaperone-dependent manner (1). HSPA1A has a broad range of substrates including newly synthesized and denatured proteins, while HSP90 tends to have a more limited subset of substrates, most of which are signaling molecules. HSPA1A and HSP90 often function collaboratively in a multi-chaperone system, which requires a minimal set of co-chaperones: HSP40, Hop, and p23 (2,3). The co-chaperones either regulate the intrinsic ATPase activity of the chaperones or recruit chaperones to specific substrates or subcellular compartments (1,4). When the ubiquitin ligase CHIP associates with the HSPA1A/HSP90 complex as a cofactor, the unfolded substrates are

subjected to degradation by the proteasome (4). The biological functions of HSPA1A/HSP90 extend beyond their chaperone activity. They are essential for the maturation and inactivation of nuclear hormones and other signaling molecules (1,3). They also play a role in vesicle formation and protein trafficking (2).

Note: This product is for in vitro research use only