

Rabbit hsc70 Polyclonal Antibody | anti-hsc70 antibody

hsc70 Antibody

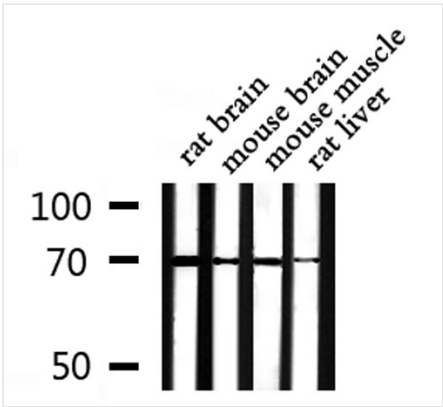
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321856	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

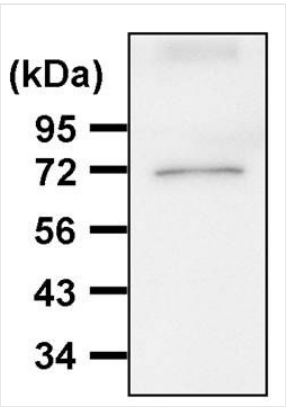
hsc70; Polyclonal Antibody; hsc70 Antibody; 2410008N15Rik; Constitutive heat shock protein 70; Epididymis luminal protein 33; Epididymis secretory sperm binding protein Li 72p; Heat shock 70 kDa protein 8; Heat shock 70kD protein 10; Heat shock 70kD protein 8; Heat shock 70kDa protein 8; Heat shock cognate 71 kDa protein; Heat shock cognate protein 54; Heat shock cognate protein 71 kDa; Heat shock protein 8; Heat shock protein A8; Heat-shock70-KD protein 10; formerly; HEL 33; HEL S 72p; HSC54; HSC71; Hsc73; HSP71; HSP73; HSP7C_HUMAN; HSPA10; HSPA8; LAP1; Lipopolysaccharide associated protein 1; LPS associated protein 1; LPS associated protein; MGC102007; MGC106514; MGC114311; MGC118485; MGC131511; MGC29929; N-myristoyltransferase inhibitor protein 71; NIP71; anti-hsc70 antibody

PRODUCT SPECIFICATIONS

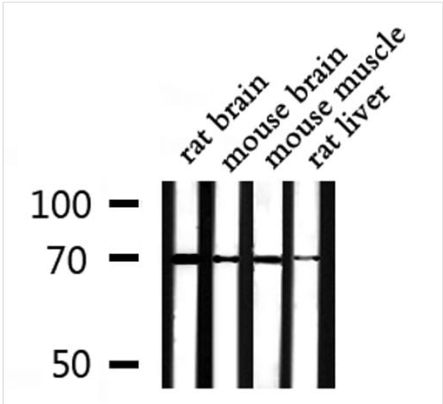
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	hsc70 antibody detects endogenous levels of total hsc70
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	646
Applicable Applications for anti-hsc70 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human hsc70
Subcellular Location	Cytoplasm. Melanosome. Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Translocates rapidly from the cytoplasm to the nuclei, and especially to the nucleoli, upon heat shock. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Tissue Specificity	Ubiquitous.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (100%), Zebrafish (89%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



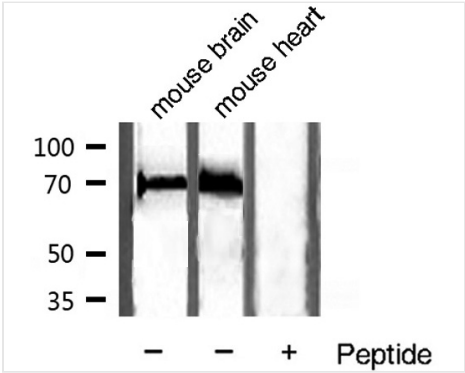
WB (Western Blot)
Western blot analysis of extracts from Hela, mouse brain, HepG2, using hsc70 Antibody.



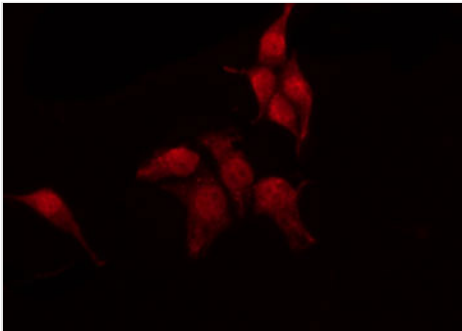
WB (Western Blot)
Western blot analysis of hsc70 expression in HeLa cells



WB (Western Blot)
Western blot analysis of extracts from rat brain, mouse brain, mouse muscle, rat liver, using hsc70 Antibody.



WB (Western Blot)
Western blot analysis of extracts of various sample, using HSC70 antibody.



IF (Immunofluorescence)
AAA321856 staining HuvEC by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-hsc70 antibody	Description: Acts as a repressor of transcriptional activation. Inhibits the transcriptional coactivator activity of CITED1 on Smad-mediated transcription. Chaperone. Component of the PRP19-CDC5L complex that forms an integral part of the spliceosome and is required for activating pre-mRNA splicing. Function: Molecular chaperone implicated in a wide variety of cellular processes, including protection of the proteome from stress, folding and transport of newly synthesized polypeptides, activation of proteolysis of misfolded proteins and the formation and dissociation of protein complexes. Plays a pivotal role in the protein quality control system, ensuring the correct folding of proteins, the re-folding of misfolded proteins and controlling the targeting of proteins for subsequent degradation (PubMed:21150129, PubMed:21148293, PubMed:24732912, PubMed:27916661, PubMed:23018488). This is achieved through cycles of ATP binding, ATP hydrolysis and ADP release, mediated by co-chaperones (PubMed:21150129, PubMed:21148293, PubMed:24732912, PubMed:27916661, PubMed:23018488). The co-chaperones have been shown to not only regulate different steps of the ATPase cycle of HSP70, but they also have an individual specificity such that one co-chaperone may promote folding of a substrate while another may promote degradation (PubMed:21150129, PubMed:21148293, PubMed:24732912, PubMed:27916661, PubMed:23018488). The affinity of HSP70 for polypeptides is regulated by its nucleotide bound state. In the ATP-bound form, it has a low affinity for substrate proteins. However, upon hydrolysis of the ATP to ADP, it undergoes a conformational change that increases its affinity for substrate proteins. HSP70 goes through repeated cycles of ATP hydrolysis and nucleotide exchange, which permits cycles of substrate binding and release. The HSP70-associated co-chaperones are of three types: J-domain co-chaperones HSP40s (stimulate ATPase hydrolysis by HSP70), the nucleotide exchange factors (NEF) such as BAG1/2/3 (facilitate conversion of HSP70 from the ADP-bound to the ATP-bound state thereby promoting substrate release), and the TPR domain chaperones such as HOPX and STUB1 (PubMed:24318877, PubMed:27474739, PubMed:24121476, PubMed:26865365). Acts as a repressor of transcriptional activation. Inhibits the transcriptional coactivator activity of CITED1 on Smad-mediated transcription. Component of the PRP19-CDC5L complex that forms an integral part of the spliceosome and is required for activating pre-mRNA splicing. May have a scaffolding role in the spliceosome assembly as it contacts all other components of the core complex. Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes (PubMed:10722728, PubMed:11276205). Participates in the ER-associated degradation (ERAD) quality control pathway in conjunction with J domain-containing co-chaperones and the E3 ligase STUB1 (PubMed:23990462). Subunit Structure: Identified in a IGF2BP1-dependent mRNP granule complex containing untranslated mRNAs. Interacts with PACRG. Interacts with HSPH1/HSP105. Interacts with IRAK1BP1 and BAG1. Interacts with DNAJC7. Interacts with DNAJB12 (via J domain) (PubMed:21150129, PubMed:21148293, PubMed:24732912, PubMed:27916661). Interacts with DNAJB14 (via J domain) (PubMed:23018488, PubMed:24732912, PubMed:27916661). Interacts (via C-terminus) with the E3 ligase CHIP forming a 210 kDa complex of one CHIP and two HSPA8 molecules. Interacts with CITED1 (via N-terminus); the interaction suppresses the association of CITED1 to p300/CBP and Smad-mediated transcription transactivation. Component of the PRP19-CDC5L splicing complex composed of a core complex comprising a homotetramer of PRPF19, CDC5L, PLRG1 and BCAS2, and at least three less stably associated proteins CTNBL1, CWC15 and HSPA8. Interacts with SV40 VP1. Interacts with TRIM5. Part of a complex composed at least of ASCL2, EMSY, HCFC1, HSPA8, CCAR2, MATR3, MKI67, RBBP5, TUBB2A, WDR5 and ZNF335; this complex may have a histone H3-specific methyltransferase activity. Interacts with METTL21A. Following LPS binding, may form a complex with CXCR4, GDF5 and HSP90AA1. Interacts with PRKN. Interacts with FOXP3. Interacts with DNAJC9 (via J domain) (PubMed:17182002). Interacts with MLLT11 (PubMed:24880125). Interacts with RNF207 (PubMed:25281747). Interacts with DNAJC21 (PubMed:27346687). Interacts with DNAJB2 (PubMed:15936278). Interacts with TTC1 (via TPR repeats) (PubMed:15708368). Interacts with SGTA (via TPR repeats) (By similarity). Interacts with HSF1 (via transactivation domain) (PubMed:9499401). Interacts with HOPX, HSP40 and HSP90 (PubMed:27708256). Interacts with STUB1 (PubMed:27708256). Interacts with BAG2 (PubMed:24318877). Interacts with BAG3 (PubMed:27474739, PubMed:24318877). Interacts with DNAJC12 (PubMed:24122553). Interacts with HSPC138 (PubMed:25760597). Post-translational Modifications: Acetylated. ISGylated.Trimethylation at Lys-561 reduces fibrillar SNCA binding. Similarity: The N-terminal nucleotide binding domain (NBD) (also known as the ATPase domain) is responsible for binding and hydrolyzing ATP. The C-terminal substrate-binding domain (SBD) (also known as peptide-binding domain) binds to the client/substrate proteins. The two domains are allosterically coupled so that, when ATP is bound to the NBD, the SBD binds relatively weakly to clients. When ADP is bound in the NBD, a conformational change enhances the affinity of the SBD for client proteins. Belongs to the heat shock protein 70 family.
References	Shan Y, Wang DD, Xu YX, Wang C, Cao L, Liu YS, Zhu CQ; Journal: J Alzheimers Dis. Aging as a Precipitating Factor in Chronic Restraint Stress-Induced Tau Aggregation Pathology, and the Protective Effects of Rosmarinic Acid.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5729877
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NCBI GeneID	3312
NCBI Accession #	NP_006588.1
NCBI GenBank Nucleotide #	NM_006597.5
UniProt Accession #	P11142 ; Q9H3R6
Molecular Weight	Observed: 70 kDa Predicted: 71 kDa
NCBI Official Full Name	heat shock cognate 71 kDa protein isoform 1
NCBI Official Synonym Full Names	heat shock protein family A (Hsp70) member 8
NCBI Official Symbol	HSPA8
NCBI Official Synonym Symbols	LAP1; HSC54; HSC70; HSC71; HSP71; HSP73; LAP-1; NIP71; HEL-33; HSPA10; HEL-S-72p
NCBI Protein Information	heat shock cognate 71 kDa protein
UniProt Protein Name	Heat shock cognate 71 kDa protein
UniProt Gene Name	HSPA8
UniProt Synonym Gene Names	HSC70; HSP73; HSPA10; LAP-1; LPS-associated protein 1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/hsc70-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/321856>