

ARG54020 anti-Hsp 70 antibody (N-term)

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes Hsp 70
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	Hsp 70
Species	Human
Immunogen	Purified recombinant human Hsp70 (N-terminus) protein fragments expressed in E. coli.
Conjugation	Un-conjugated
Alternate Names	Heat shock 70 kDa protein 1A; HSPA1; HSP70I; Heat shock 70 kDa protein 1; HSP70-1A; HEL-S-103; HSP70.1; HSP72; HSP70-1

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:300
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 70 kDa	

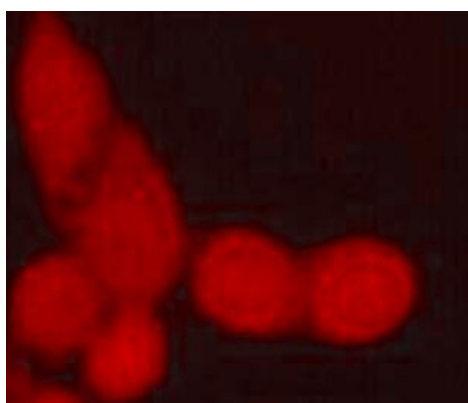
Properties

Form	Liquid
Purification	Affinity purified
Buffer	0.1M Tris-Glycine (pH 7.4), 150 mM NaCl, 0.2% Sodium azide and 50% Glycerol
Preservative	0.2% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

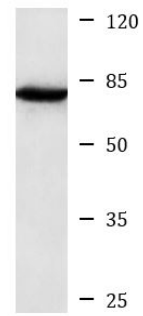
Database links	GeneID: 3308 Human Swiss-port # P34932 Human
Gene Symbol	HSPA1A
Gene Full Name	heat shock 70kDa protein 1A
Background	This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. In conjunction with other heat shock proteins, this protein stabilizes existing proteins against aggregation and mediates the folding of newly translated proteins in the cytosol and in organelles. It is also involved in the ubiquitin-proteasome pathway through interaction with the AU-rich element RNA-binding protein 1. The gene is located in the major histocompatibility complex class III region, in a cluster with two closely related genes which encode similar proteins. [provided by RefSeq, Jul 2008]
Function	In cooperation with other chaperones, Hsp70s stabilize preexistent proteins against aggregation and mediate the folding of newly translated polypeptides in the cytosol as well as within organelles. These chaperones participate in all these processes through their ability to recognize nonnative conformations of other proteins. They bind extended peptide segments with a net hydrophobic character exposed by polypeptides during translation and membrane translocation, or following stress-induced damage. In case of rotavirus A infection, serves as a post-attachment receptor for the virus to facilitate entry into the cell. Essential for STUB1-mediated ubiquitination and degradation of FOXP3 in regulatory T-cells (Treg) during inflammation. [UniProt]
Research Area	Cancer antibody; Signaling Transduction antibody
Calculated Mw	70 kDa
PTM	In response to cellular stress, acetylated at Lys-77 by NA110 and then gradually deacetylated by HDAC4 at later stages. Acetylation enhances its chaperone activity and also determines whether it will function as a chaperone for protein refolding or degradation by controlling its binding to co-chaperones HOPX and STUB1. The acetylated form and the non-acetylated form bind to HOPX and STUB1 respectively. Acetylation also protects cells against various types of cellular stress. [UniProt]
Cellular Localization	Cytoplasm. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. [UniProt]

Images



ARG54020 anti-Hsp 70 antibody (N-term) ICC/IF image

Immunofluorescence: HeLa cells stained with ARG54020 anti-Hsp 70 antibody (N-term) at 1:300 dilution.



HeLa

ARG54020 anti-Hsp 70 antibody (N-term) WB image

Western blot: HeLa cell lysate stained with ARG54020 anti-Hsp 70 antibody (N-term) at 1:1000 dilution.