

ARG22209 anti-Hsp 70 antibody [C92F3A-5]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [C92F3A-5] recognizes Hsp 70
Tested Reactivity	Hu, Ms, Rat, Bov, Carp, Ce, Chk, Dm, Dog, Gpig, Hm, Mk, Pig, Rb, Sheep
Tested Application	BL, ELISA, EM, FACS, ICC/IF, IHC-P, WB
Specificity	Detects a band of ~70kDa by Western blot. Does not cross-react with Hsc70 (Hsp73).
Host	Mouse
Clonality	Monoclonal
Clone	C92F3A-5
Isotype	IgG
Target Name	Hsp 70
Species	Human
Immunogen	Human HSP70
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
	BL	Assay-dependent
	ELISA	Assay-dependent
	EM	Assay-dependent
	FACS	1:1000
	ICC/IF	1:1000
	IHC-P	Assay-dependent
	WB	1:1000

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

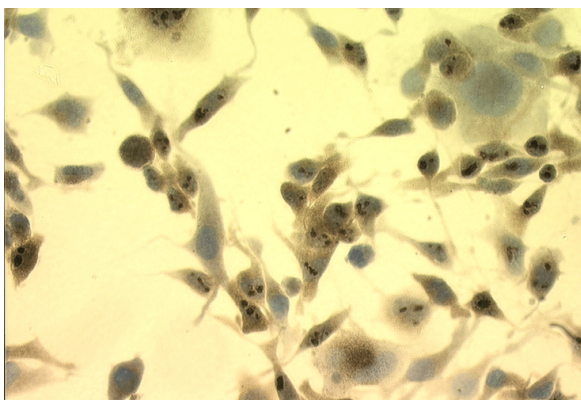
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.1% Sodium azide and 50% Glycerol

Preservative	0.1% 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

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]
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.
Cellular Localization	Cytoplasm

Images

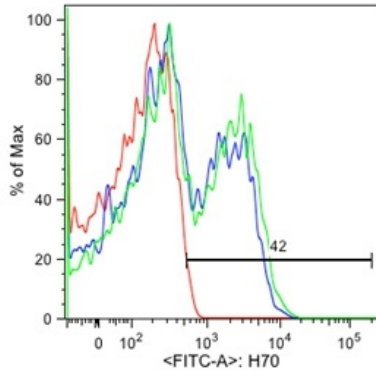


ARG22209 anti-Hsp 70 antibody [C92F3A-5] ICC/IF image

Immunocytochemistry: Formalin fixed Heat Shocked Melanoma cells stained with ARG22209 anti-Hsp 70 antibody [C92F3A-5] at 1:1000 dilution (overnight at RT). .

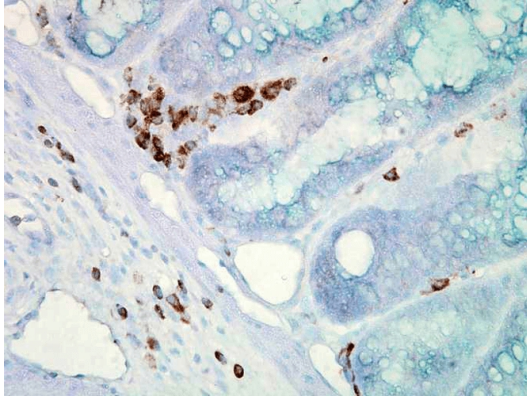
ARG22209 anti-Hsp 70 antibody [C92F3A-5] FACS image

Flow Cytometry: Mouse Heat Shocked CD3+ CD8+ T cells stained with FITC-conjugated ARG22209 anti-Hsp 70 antibody [C92F3A-5].



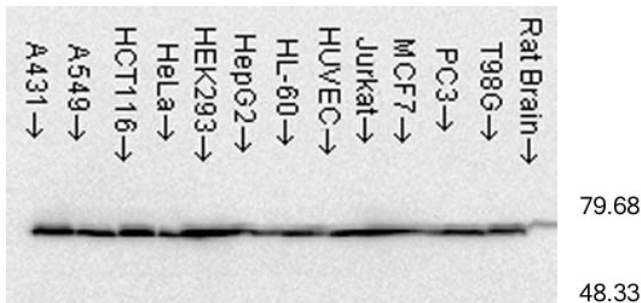
ARG22209 anti-Hsp 70 antibody [C92F3A-5] IHC image

Immunohistochemistry: Formalin fixed Mouse colon carcinoma stained with ARG22209 anti-Hsp 70 antibody [C92F3A-5] at 1:10000 dilution (12 hours). Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200uL for 2 min at RT. Magnification: 40x.



ARG22209 anti-Hsp 70 antibody [C92F3A-5] WB image

Western blot: 15 µg of Human cell lysates from various cell lines stained with ARG22209 anti-Hsp 70 antibody [C92F3A-5] at 1:1000 dilution (2 hours at RT).



ARG22209 anti-Hsp 70 antibody [C92F3A-5] IHC image

Immunohistochemistry: Formalin fixed colon carcinoma stained with ARG22209 anti-Hsp 70 antibody [C92F3A-5] at 1:10000 dilution (12 hours). Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200uL for 2 min at RT. Magnification: 40x.

