Lot Number: PG202691

Product Data Sheet

HSP70 / Heat Shock Protein 70 Antibody (3A3)

Tested Species Reactivity	Published Species Reactivity
Amphibian (Am)	Algae (Ag)
Arthropod (Ar)	Amphibian (Am)
Avian (Av)	Arthropod (Ar)
Drosophila (Dm)	Bovine (Bv)
Fish (Fs)	Crab (Cb)
Human (Hu)	Drosophila (Dm)
Mollusca (Mc)	Echinodermata (Ec)
Mouse (Ms)	Fish (Fs)
Non-human primate (Nhp)	Human (Hu)
Plant (Pl)	Insect (Ins)
Porcine (Po)	Mollusca (Mc)
Rat (Rt)	Mouse (Ms)
Yeast (Ys)	Non-human primate (Nhp)
	Prawn (Pn)
	Porcine (Po)
	Rat (Rt)
	Yeast (Ys)

Details	
Catalog Number:	MA3-006
Size:	50 µL
Class:	Monoclonal
Type:	Antibody
Clone:	3A3
Host / Isotype:	Mouse / IgG1
Immunogen:	Human recombinant HSP70 overexpressed in E. coli.

Form Information	
Form:	Liquid
Storage Buffer:	ascites diluted in PBS
Preservative:	0.05% sodium azide
Storage Conditions:	-20° C, Avoid Freeze/Thaw Cycles

Tested Applications	Dilution *
Western Blot (WB)	1:1000 - 1:5000
Immunofluorescence (IF)	1:50-1:200
Immunocytochemistry (ICC)	1:100
Immunohistochemistry (Paraffin) (IHC (P))	1:200
Immunoprecipitation (IP)	2 µl
Gel Shift (GS)	Assay dependent
Published Applications	**Dilution**
Western Blot (WB)	See publications
Immunocytochemistry (ICC)	See publications
Immunohistochemistry (IHC)	See publications
Flow Cytometry (FACS)	See publications
Immunoprecipitation (IP)	See publications
ELISA (ELISA)	See publications
Blocking Assay (BLOCK)	See publications

* Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own experiment using appropriate negative and positive controls.

Product Specific Information

MA3-006 detects several members of the heat shock protein 70 kDa (HSP70) gene family including HSP70, HSC70, p75, and following heat shock, HSP72 from yeast, Drosophila, fish, porcine, plant, mouse, avian, arthropod (red claw crayfish & black tiger prawn), amphibian, non-human primate, and human samples.

MA3-006 has been successfully used in Western blot, immunocytochemistry, immunofluorescence, gel shift, and immunoprecipitation procedures. By Western blot, this antibody detects proteins from ~70 kDa to ~78 kDa representing different members of the

General Information

Heat shock proteins (HSP) are expressed in response to various biological stresses, including high temperatures. There are several major families of HSPs including HSP70, HSP90 and HSP100. The HSP70 family is a set of highly conserved proteins that are induced by a variety of biological stresses, including heat stress, in every organism in which the proteins have been examined. The human HSP70 family members include: HSP70, a protein which is strongly inducible in all organisms but which is also constitutively expressed in primate cells; HSP72, a 72 kDa protein that is induced exclusively under stress conditions; HSC70, or cognate protein, is a 72 kDa, constitutively expressed, protein which is involved in the uncoating of

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HSP70 family. 2-dimensional gel electrophoresis is required to resolve the heat induced form of these proteins from their constitutively expressed counterparts. Immunocytochemical staining of HSP70 in heat shocked HeLa cells with MA3-006 results in cytoplasmic staining.

The MA3-006 antigen is recombinant human HSP70 over-expressed in E. coli. Epitope mapping with a panel of HSP70 deletion mutants suggests that the epitope recognized is located between amino acids 504-617 of human HSP70, a region that has been shown to be involved in stress-induced nucleolar localization.

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clathrin coated vesicles; GRP78, or BiP, is a glucose regulated 78 kDa protein localized in the endoplasmic reticulum; and p75, or HSP75, a 75 kDa protein that is found within the mitochondria.

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