ARG22218
anti-Hsp 27 antibody [5D12-A12]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [5D12-A12] recognizes Hsp 27
Tested Reactivity	Hu
Tested Application	ELISA, ICC/IF, IHC-P, IP, WB
Specificity	Detects ~27kDa. Has no cross-reactivity to Alpha B crystallin. Very limited cross-reactivity to other species.
Host	Mouse
Clonality	Monoclonal
Clone	5D12-A12
Isotype	IgG2b, kappa
Target Name	Hsp 27
Species	Human
Immunogen	Human HSP27
Conjugation	Un-conjugated
Alternate Names	HSP 27; Heat shock 27 kDa protein; HMN2B; HS.76067; SRP27; HEL-S-102; HspB1; CMT2F; 28 kDa heat shock protein; HSP27; Heat shock protein beta-1; Hsp25; Estrogen-regulated 24 kDa protein; Stress-responsive protein 27; HSP28

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
ICC/IF	1:100
IHC-P	Assay-dependent
IP	Assay-dependent
WB	1:2000

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

Properties

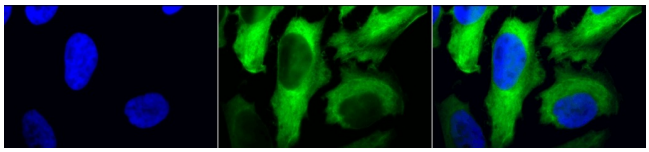
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.09% Sodium azide and 50% Glycerol
Preservative	0.09% Sodium azide

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

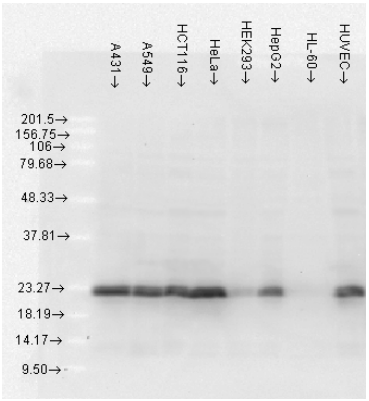
Database links	GeneID: 3315 Human Swiss-port # P04792 Human
Gene Symbol	HSPB1
Gene Full Name	heat shock 27kDa protein 1
Background	The protein encoded by this gene is induced by environmental stress and developmental changes. The encoded protein is involved in stress resistance and actin organization and translocates from the cytoplasm to the nucleus upon stress induction. Defects in this gene are a cause of Charcot-Marie-Tooth disease type 2F (CMT2F) and distal hereditary motor neuropathy (dHMN). [provided by RefSeq, Oct 2008]
Function	Involved in stress resistance and actin organization. [UniProt]
Calculated Mw	23 kDa
PTM	Phosphorylated upon exposure to protein kinase C activators and heat shock (PubMed:8325890). Phosphorylation by MAPKAPK2 and MAPKAPK3 in response to stress dissociates HSPB1 from large small heat-shock protein (sHsps) oligomers and impairs its chaperone activity and ability to protect against oxidative stress effectively. Phosphorylation by MAPKAPK5 in response to PKA stimulation induces F-actin rearrangement (PubMed:1332886, PubMed:8093612, PubMed:19166925).
Cellular Localization	Cytoplasm, cytoskeleton, Nucleus, spindle

Images



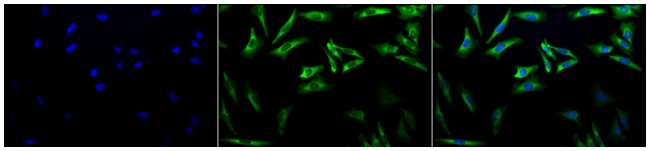
ARG22218 anti-Hsp 27 antibody [5D12-A12] ICC/IF image

Immunocytochemistry: 2% Formaldehyde (20 min at RT) fixed Heat Shocked HeLa cells stained with ARG22218 anti-Hsp 27 antibody [5D12-A12] (green) at 1:100 dilution (12 hours at 4°C). Counterstain: DAPI (blue) nuclear stain at 1:40000 for 120 min at RT. Magnification: 100x. Left: DAPI (blue) nuclear stain, Middle: Primary antibody, Right: Composite.



ARG22218 anti-Hsp 27 antibody [5D12-A12] WB image

Western blot: Human cell lysates stained with ARG22218 anti-Hsp 27 antibody [5D12-A12] at 1:1000 dilution.



ARG22218 anti-Hsp 27 antibody [5D12-A12] ICC/IF image

Immunocytochemistry: 2% Formaldehyde (20 min at RT) fixed Heat Shocked HeLa cells stained with ARG22218 anti-Hsp 27 antibody [5D12-A12] (green) at 1:100 dilution (12 hours at 4°C). Counterstain: DAPI (blue) nuclear stain at 1:40000 for 120 min at RT. Magnification: 20x. Left: DAPI (blue) nuclear stain, Middle: Primary antibody, Right: Composite.