Mouse Anti-Human HSP27 Monoclonal Antibody

Cat. No. CAB11554MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse Monoclonal Antibody to Human HSP27
Species	Human
Source	Mouse
Antigen Description	Heat shock proteins (HSPs) are a group of highly conserved stress response proteins which primarily function as molecular chaperones, and are involved in a variety of biological processes including thermotolerance, inhibition of apoptosis, regulation of cell development and cell differentiation, as well as signal transduction. As a member of the chaperones, HSP27 appears in many cell types, especially all types of muscle cells, and is suggested to play an essential role in the differentiation of tissues. HSP27 has a characteristic and highly conserved amino acid sequence at the C-terminus, the so-called α-crystallin-domain which is important for the formation of stable dimers, and it is demonstrated that the oligomerization status is connected with the chaperone activity. HSP27 is also identified as an anti-apoptotic molecule. It interacts with the outer mitochondrial membranes and interferes with the activation of cytochrome c/Apaf-1/dATP complex and therefore inhibits the activation of procaspase-9 and procaspase-3. Furthermore, HSP27 also exerts functions in protecting actin filaments from fragmentation and the activation of the certain proteasome.
Specificity	Human HSP27. No cross-reactivity with E.coli cell lysate in ELISA.

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Immunogen	Recombinant Human HSP27 Protein
Isotype	Mouse IgG2b
Cross Reactivity	4E 8H3
Clone	5F 9I4
Applications	WB; ELISA
Dilution	Western blot: This antibody can be used at 1-2 μg/mL with the appropriate secondary reagents to detect HSP27 in WB. Using a DAB detection system, the detection limit for HSP27 is approximately 1 ng/lane under non-reducing conditions and reducing conditions.ELISA: This antibody can be used at 0.5-1 μg/mL with the appropriate secondary reagents to detect HSP27. The detection limit for HSP27 is approximately 0.0195 ng/well.
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human HSP27. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	0.2 μm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70 °C. Preservative-Free.Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

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GENE INFORMATION

Gene Name	HSPB1 heat shock 27kDa protein 1 [Homo sapiens]
Official Symbol	HSPB1
Synonyms	HSPB1; heat shock 27kDa protein 1; heat shock 27kD protein 1; heat shock protein beta-1; Hs.76067; Hsp25; HSP27; HSP28; HSP 27; 28 kDa heat shock protein; heat shock 27 kDa protein; stress-responsive protein 27; estrogen-regulated 24 kDa protein; CMT2F; HMN2B; SRP27; HS.76067; DKFZp586P1322;
Gene ID	3315
mRNA Refseq	NM_001540
Protein Refseq	NP_001531
MIM	602195
UniProt ID	P04792
Chromosome Location	7q11.23
Pathway	Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Destabilization of mRNA by AUF1 (hnRNP D0), organism-specific biosystem; FAS pathway and Stress induction of HSP regulation, organism-specific biosystem; Gene Expression, organism-specific biosystem; IL-3 Signaling Pathway, organism-specific biosystem; IL-6 Signaling Pathway, organism-specific biosystem;
Function	protein binding; protein kinase C binding; protein kinase C delta binding; protein

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	kinase C inhibitor activity; protein kinase binding; ubiquitin binding;

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