

Datasheet for 200-301-243**HSP27 Antibody****Overview**

Description:	Anti-HSP27 (MOUSE) Monoclonal Antibody - 200-301-243
Item No.:	200-301-243
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Mouse

Product Details

Background:	Heat shock protein (HSP) 27 is one of the small HSPs that are constitutively expressed at different levels in different cell types and tissues (this protein has also been referred to as the Estrogen-Regulated 24 kDa protein, hsp25 and hsp28). Like other small heat shock proteins, HSP27 is regulated at both the transcriptional and post-translational level. In response to stress, the expression level of HSP27 increases several-fold to confer cellular resistance to the adverse environmental change. The common functions of sHsps are chaperone activity, thermotolerance, inhibition of apoptosis, regulation of cell development, and cell differentiation. They also take part in signal transduction. The HSP27 gene has 3 exons. The mouse Hsp25 gene was mapped to chromosome 5 in a region homologous to 7q in the human. They also mapped the mouse Hsp105 gene to chromosome 5 but suggested that the human homolog is probably on 13q, not chromosome 7. HSP27 plays a major role in the increased thermal resistance acquired by cells after exposure to HSP inducers. The level of HSP27 phosphorylation is significantly elevated after exposure of cells to heat shock, sodium arsenite, IL-1 and TNF- α . MAPKAPK2 and MAPKAPK3 are both activated by these conditions and can phosphorylate HSP27 on serine residues. Anti-HSP27 Antibody is ideal for investigators involved in Signaling Proteins, Cell Stress & Chaperone Proteins, Cancer, Cellular Stress, and p38 Pathway research.
Synonyms:	mouse anti-HSP27 antibody, mouse anti-Heat shock protein beta-1 antibody, HspB1 antibody, Heat shock 27 kDa protein antibody, Stress-responsive protein 27 antibody, SRP27 antibody, Estrogen-regulated 24 kDa protein antibody, 28 kDa heat shock protein antibody
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	G3.1

Format: IgG1

Target Details

Gene Name:	HSPB1
Reactivity:	Human
Immunogen Type:	Recombinant Protein
Immunogen:	This HSP27 monoclonal antibody was produced by repeated immunizations with a prokaryotic recombinant protein corresponding to the full length human hsp27 protein.
Purity/Specificity:	This protein A purified mouse monoclonal antibody reacts specifically with HSP27 in human tissues and cell lines. MCF-7 cells are recommended as a positive control. Cross reactivity with hsp27 from other mammalian sources is likely. No cross reactivity occurs with HSP70, HSP90 or HSP104.
Relevant Links:	• NCBI - 17647521 • UniProtKB - P04792 • GenelD - 3315

Application Details

Tested Applications:	ELISA, WB
Application Note:	This protein A purified monoclonal antibody against human Hsp27 has been tested for use in immunoblotting and ELISA and is suitable in immunoprecipitation, immunohistochemistry, and immunocytochemistry. The antibody recognizes a 27 kDa band corresponding to hsp27 in cell lysates from breast carcinoma. Both frozen sections and paraffin embedded material can be used for immunocytochemistry and immunohistochemistry.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
WB:	1:500 - 1:1,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.5 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

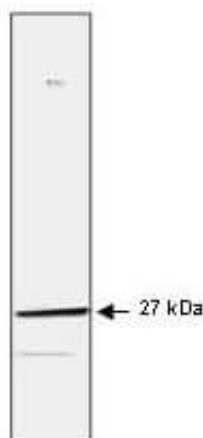
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot

Mab anti-Human HSP27 antibody (clone G3.1) is shown to detect human HSP27 by western blot. Detection occurs after 10 µg of a HeLa whole cell lysate is loaded per lane. The blot was incubated with a 1:1,000 dilution of Mab anti-Human HSP27 at room temperature for 30 min followed by detection using IRDye™800 labeled Goat-a-Mouse IgG [H&L] (610-132-121) diluted 1:5,000. A single band corresponding to human HSP27 is detected at ~27 kDa when compared with known molecular weight standards (not shown). The antibody may be used to detect endogenous human HSP27. IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.