



Rabbit (polyclonal) Anti-HSP27 Unconjugated

PRODUCT ANALYSIS SHEET

Catalog Number:	AHO1132
Lot Number:	See product label
Quantity/Volume:	100 µg/200 µL
Isotype:	Rabbit Ig
Form of Antibody:	Purified immunoglobulin in phosphate buffered saline containing 1% BSA.
Preservative:	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.).
Purification:	Purified by Protein A/G affinity chromatography.
Immunogen:	Recombinant full length human HSP27 expressed in <i>E. coli</i> .
Description:	Heat Shock Protein 27 (HSP27) is a 27 kDa member of a family of proteins whose expression and function are stimulated by heat shock and other stress stimuli. A major function of these proteins is to serve as chaperones that bind to and stabilize the active conformation of other proteins. HSP27, along with other members of the small HSP group, possesses a C-terminal α -crystalline homology domain. HSP27 is localized to the cytoplasm of unstressed cells but can redistribute to the nucleus in response to stress, where it may function to stabilize DNA and/or the nuclear membrane. Cytoplasmic HSP27 has been observed to associate with several protein complexes, including the Akt/MAPKAP-kinase 2/p38 MAPK signaling module and the IKK complex. HSP27 is also an actin capping protein that binds to the barbed (growing) ends of actin filaments, thereby inhibiting filament extension. Phosphorylation of HSP27 on serine 82 by MAPKAP-kinase 2 leads to HSP27 dissociation from the Akt/MAPKAP-kinase 2/p38 complex and from actin filaments, while stimulating HSP27 binding to the IKK complex. Human HSP27 shares 80% homology with the mouse homolog HSP25 and 43% homology with the <i>C. elegans</i> protein C09B8.6.
Species Reactivity:	Human, mouse and rat. Other species were not tested.
Applications:	The antibody has been used for Western blotting applications.
Suggested Working Dilutions:	For Western blotting applications, we recommend using the antibody at 0.1-1.0 µg/mL. The optimal antibody concentration should be determined empirically for each specific application.
Storage:	Store at 2-8°C for up to one month. For long term storage, apportion into working aliquots and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.
Positive Control cells:	Human HeLa, mouse 3T3L1 and rat L6 cells.

This product is for research use only. Not for use in diagnostic procedures.

www.invitrogen.com

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: techsupport@invitrogen.com

PI AHO1132

(Rev 10/08) DCC-08-1089

Important Licensing Information - These products may be covered by one or more Limited Use Label Licenses (see the Invitrogen Catalog or our website, www.invitrogen.com). By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

References:

Keezer, S.M., et al. (2003) Angiogenesis inhibitors target the endothelial cell cytoskeleton through altered regulation of heat shock protein 27 and cofilin. *Cancer Res.* 63(19):6405-6412.

Pantos, C., et al. (2003) Thyroxine pretreatment increases basal myocardial heat-shock protein 27 expression and accelerates translocation and phosphorylation of this protein upon ischaemia. *Eur. J. Pharmacol.* 478(1):53-60.

Park, K.J., et al. (2003) Heat shock protein 27 association with the I κ B kinase complex regulates tumor necrosis factor α -induced NF- κ B activation. *J. Biol. Chem.* 278(37):35272-35278.

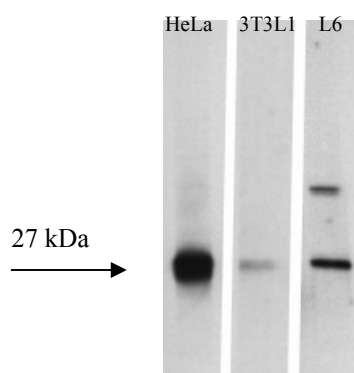
Rane, M.J., et al. (2003) Heat shock protein 27 controls apoptosis by regulating Akt activation. *J. Biol. Chem.* 278(30):27828-27835.

Geum, D., et al. (2002) Phosphorylation-dependent cellular localization and thermoprotective role of heat shock protein 25 in hippocampal progenitor cells. *J. Biol. Chem.* 277(22):19913-19921.

Garcia, J.G., et al. (2002) Critical involvement of p38 MAP kinase in pertussis toxin-induced cytoskeletal reorganization and lung permeability. *FASEB J.* 16(9):1064-1076.

Related Products:

Rabbit (polyclonal) HSP27 [pS82] Phosphospecific Antibody	Cat. #	44-534G
Mouse (monoclonal) Anti-HSP27	Cat. #	AHO1041
HSP27 (Total) ELISA kit	Cat. #	KHO0331
HSP27 [pS82] phosphoELISA™ kit	Cat. #	KHO0341
HSP27 (Total) Antibody Bead Kit	Cat. #	LHO0331
HSP27 [pS82] Antibody Bead Kit	Cat. #	LHO0341
HSP27 [pS82] Control Peptides	Cat. #	04-534Z



Extracts prepared from human HeLa cells, mouse 3T3L1 and rat L6 cells were resolved by SDS-PAGE on a 4-20% polyacrylamide gel and transferred to PVDF. The membranes were blocked with a 5% milk-TBST buffer and then incubated with this rabbit polyclonal antibody at 0.50 μ g/mL for two hours at room temperature in a 5% milk-TBST buffer. After washing, membranes were incubated with goat F(ab')₂ anti-rabbit IgG alkaline phosphatase (Cat. # ALI4405) and signals were detected using the Tropix WesternStar™ method.

This product is for research use only. Not for use in diagnostic procedures.

www.invitrogen.com

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: techsupport@invitrogen.com

PI AHO1132

(Rev 10/08) DCC-08-1089

Important Licensing Information - These products may be covered by one or more Limited Use Label Licenses (see the Invitrogen Catalog or our website, www.invitrogen.com). By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.