

**#2442** Store at -20°C

# HSP27 Antibody (Rodent Preferred)

100 µl  
 (10 western blots)



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rev. 09/16/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

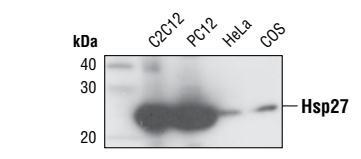
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC, F Endogenous	M, R	27 kDa	Rabbit**

**Background:** Heat shock protein (HSP) 27 is one of the small HSPs that are constitutively expressed at different levels in various cell types and tissues. Like other small heat shock proteins, HSP27 is regulated at both the transcriptional and posttranslational levels (1). In response to stress, the expression level of HSP27 increases several-fold to confer cellular resistance to the adverse environmental change. HSP27 is phosphorylated at Ser15, Ser78 and Ser82 by MAPKAP kinase 2 as a result of the activation of the p38 MAP kinase pathway (2,3). Phosphorylation of HSP27 causes a change in its tertiary structure, which shifts from large homotypic multimers to dimers and monomers (4). It has been shown that phosphorylation and increased concentration of HSP27 modulates actin polymerization and reorganization (5,6).

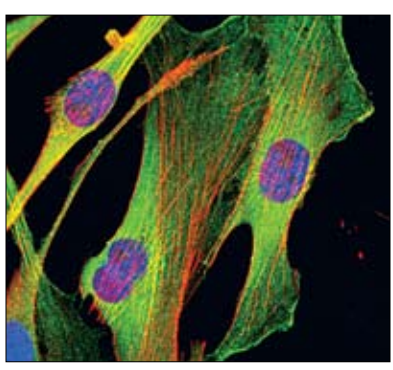
**Specificity/Sensitivity:** HSP27 Antibody (Rodent Preferred) detects endogenous levels of total HSP27 protein. The antibody does not cross-react with other heat shock proteins.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to rat HSP27. Antibodies are purified by protein A and peptide affinity chromatography.

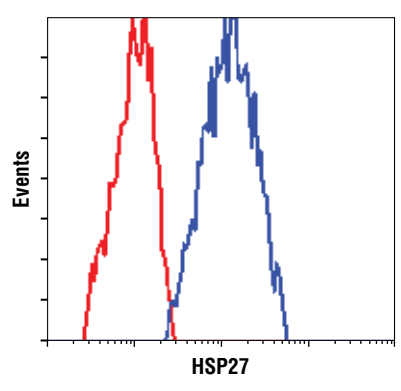
- Background References:**
- Arriago, A.P. and Landry, J. (1994) *Cold Spring Harbor Laboratory Press, NY*, 335-373.
  - Landry, J. et al. (1992) *J. Biol. Chem.* 267, 794-803.
  - Rouse, J. et al. (1994) *Cell* 78, 1027-1037.
  - Rogalla, T. et al. (1999) *J. Biol. Chem.* 274, 18947-18956.
  - Lavoie, J. et al. (1993) *J. Biol. Chem.* 268, 24210-24214.
  - Rousseau, S. et al. (1997) *Oncogene* 15, 2169-2177.



Western blot analysis of extracts from C2C12, PC12, HeLa and COS cells using HSP27 Antibody (Rodent Preferred).



Confocal immunofluorescent analysis of untreated C2C12 cells using HSP27 Antibody (Rodent Preferred) (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Flow cytometric analysis of untreated C2C12 cells using HSP27 Antibody (Rodent Preferred) (blue) compared to a nonspecific negative control antibody (red).

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Entrez-Gene ID** #3315  
**Swiss-Prot Acc.** #P04792

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**

**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunofluorescence (IF-IC)	1:400
Flow Cytometry	1:25

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

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