

#2405 Store at -20°C

Phospho-HSP27 (Ser78) Antibody


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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: WB, IHC-P, FC-FP	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 27	Source: Rabbit	UniProt ID: #P04792	Entrez-Gene Id: 3315
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Product Usage Information	Application Western Blotting Immunohistochemistry (Paraffin) Flow Cytometry (Fixed/Permeabilized)	Dilution 1:1000 1:100 1:100
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.	
Specificity / Sensitivity	Phospho-HSP27 (Ser78) Antibody detects endogenous levels of HSP27 phosphorylated at Ser78. This antibody does not cross-react with other phosphorylated heat shock proteins.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser78 of human HSP27. Antibodies are purified by protein A and peptide affinity chromatography.	
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 HSPs, HSP27 is regulated at both the transcriptional and posttranslational levels (1). In response to stress, the HSP27 expression increases several-fold to confer cellular resistance to the adverse environmental change. HSP27 is phosphorylated at Ser15, Ser78, and Ser82 by MAPKAPK-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).	
Background References	1. Stetler, R.A. et al. (2009) <i>Curr Mol Med</i> 9, 863-72. 2. Landry, J. et al. (1992) <i>J Biol Chem</i> 267, 794-803. 3. Rouse, J. et al. (1994) <i>Cell</i> 78, 1027-37. 4. Rogalla, T. et al. (1999) <i>J Biol Chem</i> 274, 18947-56. 5. Lavoie, J.N. et al. (1993) <i>J Biol Chem</i> 268, 24210-4. 6. Rousseau, S. et al. (1997) <i>Oncogene</i> 15, 2169-77.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IHC-P: Immunohistochemistry (Paraffin) FC-FP: Flow Cytometry (Fixed/Permeabilized)
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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