Revision 1

Store at -20C

#11900

PhosphoPlus® HSP27 (Ser82) Antibody Duet

Cell Signaling TECHNOLOGY®

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

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-HSP27 (Ser82) (D1H2F6) XP® Rabbit mAb	9709	100 µl	27 kDa	Rabbit IgG
HSP27 (D6W5V) Rabbit mAb	95357	100 µl	27 kDa	Rabbit IgG

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

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) *Curr Mol Med* 9, 863-72.
2. Landry, J. et al. (1992) *J Biol Chem* 267, 794-803.
3. Rouse, J. et al. (1994) *Cell* 78, 1027-37.
4. Rogalla, T. et al. (1999) *J Biol Chem* 274, 18947-56.
5. Lavoie, J.N. et al. (1993) *J Biol Chem* 268, 24210-4.
6. Rousseau, S. et al. (1997) *Oncogene* 15, 2169-77.

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