

## HSP27 Protein

Full-length recombinant protein expressed in *E. coli* cells

Catalog # H30-54G

Lot # K326-1

### Product Description

Recombinant full-length human HSP27 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is [NM\\_001540](#).

### Gene Aliases

CMT2F; HSPB1; HSP28; Hsp25; HS.76067; DKFZp586P1322.

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

Store product at  $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

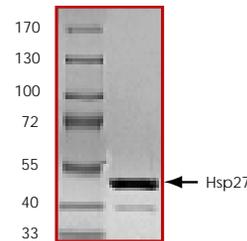
### Scientific Background

HSP27 is a member of heat shock proteins (HSPs) which are synthesized in cells in response to heat shock and other metabolic stresses and provide a transient state of thermotolerance. HSP27 plays a major role in the increased thermal resistance acquired by cells after exposure to HSP inducers (1). The level of HSP27 phosphorylation is significantly elevated after exposure of cells to heat shock, sodium arsenite, IL-1 and TNF- $\alpha$ . MAPKAPK2 and MAPKAPK3 are both activated by these conditions and can phosphorylate HSP27 on serine residues (2).

### References

1. Landry, J. et al: Heat shock resistance conferred by expression of the human HSP27 gene in rodent cells. *J Cell Biol.* 1989 Jul;109(1):7-15.
2. Clifton, A D. et al: A comparison of the substrate specificity of MAPKAP kinase-2 and MAPKAP kinase-3 and their activation by cytokines and cellular stress. *FEBS Lett.* 1996 Sep 2;392(3):209-14.

### Purity



The purity was determined to be **>80%** by densitometry.  
Approx. MW **52kDa**.

### Upstream Active Kinases

MAPKAPK2                      Cat # M40-11  
MAPKAPK3                      Cat # M41-10

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Specific Lot Number         K326-1

Purity	>80%
Concentration	0.2 $\mu\text{g}/\mu\text{l}$
Stability	1yr At $-70^{\circ}\text{C}$ from date of shipment
Storage & Shipping	Store product at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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