

Stressgen

DnaK Monoclonal Antibody (8E2/2)

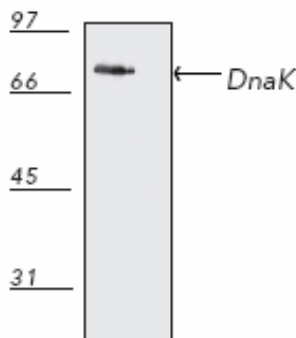
Product Specifications	
Catalog Number:	SPA-880
Host:	Mouse
Isotype:	IgG ₁
Species Reactivity:	<i>E. coli</i>
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB⁶⁻¹⁰: 0.1 µg/mL (Colorimetric)
Predicted m.w:	~70 kDa
Concentration:	See product label
Purification:	Protein G Affinity
Format:	PBS, 0.09% azide, 50% glycerol
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	<i>E. coli</i> DnaK protein ¹¹
Related Products:	
SPP-630	DnaK Active Recombinant Protein
SPA-410	DnaJ Polyclonal Antibody
SPP-640	DnaJ Active Recombinant Protein
SPA-240	GrpE Polyclonal Antibody
SPP-650	DnaJ Active Recombinant Protein

Background:

The bacterial Hsp70 homolog DnaK displays inherent autophosphorylation activity and a weak 5'-nucleotidase activity, cleaving the 5'-phosphate groups from both ribose- and deoxyribose nucleotides^{1,2}. DnaK interacts with DnaJ and GrpE heat shock protein chaperones to fold substrate proteins in an ATP-driven cycle³. Like eukaryotic Hsp70 homologs, DnaK participates in the assembly/disassembly of protein complexes as first proposed by Hightower⁴ and Pelham⁵.

References:

- Hemmingsen, S.M., *et al.*, (1988) *Nature* **333**, 330-334.
- Cheng, M.Y., *et al.* (1989) *Nature* **337**, 620-625.
- Zylicz, M., *et al.* (1983) *PNAS USA* **80**, 6431-6435.
- Hightower, L. (1980) *J Cell Physiol.* **102**, 407-427.
- Pelham, H.B.R. (1986) *Cell* **46**, 959-961.
- Auger, I., *et al.* (1997) *J Clin Invest.* **99**, 1818-1822.
- Vayssier, C. (1994) *Fems Micro Let.* **121**, 303-308.
- Tang, W.-W., *et al.* (1997) *Inf & Imm.* **65**, 2983-2986.
- Bernstein, H.D., *et al.* (2001) *J Bacteriol.* **183**, 2187-2197.
- Knodler, L.A., *et al.* (2002) *Mol Microbiol* **43**(5): 1089-1103.
- Zylicz, M., *et al.* (1987) *J Biol Chem.* **262**, 17437-17442.



Western blot analysis of *E. coli* DnaK protein (SPP-630), probed with DnaK Monoclonal Antibody (8E2/2)