



Stressgen

GroEL Polyclonal Antibody

Product Specifications

Catalog Number:	SPS-875
Host:	Rabbit
Species Reactivity:	<i>E. coli</i> (weak: human, mouse, rat, hamster, monkey, mussel, rabbit, scallop, and yeast)
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 1.0 µg/mL (Colorimetric)
Predicted m.w:	~60 kDa
Concentration:	See product label
Purification:	Protein A Affinity
Format:	PBS, pH 7.2, 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> GroEL protein
Related Products:	
SPP-610	GroEL Active Recombinant Protein
SAB-301	Goat IgG Polyclonal Antibody, AP Conjugate
SPS-870	GroEL Monoclonal Antibody (9A1/2)
SPA-210	GroES Recombinant Protein
SPP-620	GroES Polyclonal Antibody
SPS-870	GroEL Monoclonal Antibody (9A1/2)

Background:

Genetic and biochemical studies establish GroEL's role of mediating assembly of phage head and tail protein complexes^{1,2} as essential for morphogenesis of bacteriophage lambda. Studies identifying GroEL homologs in plant chloroplasts³ and in the mitochondria of a variety of eukaryotes (Hsp60 represents the mitochondrial counterpart of the well-studied bacterial GroEL heat shock protein)⁴⁻⁷ show GroEL homologs participating in conjunction with mitochondrial Hsp70 in the folding and assembly of proteins translocated into the matrix. The identification of TCP-1⁸, a chaperone protein analogous to GroEL in the eukaryotic cytosol, raises the possibility of Hsp60 and Hsp70 cooperation in the maturation of cytoplasmic proteins. Like Hsp70, Hsp60 members exhibit an ATPase activity central to their role as chaperones^{9,10}. GroEL functions in prokaryotic protein folding and assembly in an ATP-dependent manner with GroES¹¹, another product of the groE operon. *In vitro*, groE operon products modulate folding of a number of eukaryotic proteins¹²⁻¹⁵.

References:

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