

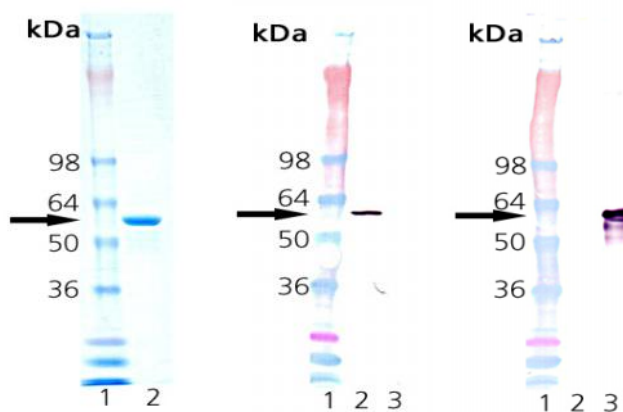
Hsp60 Recombinant Protein

Product Specifications

Catalog Number:	SPP-741										
Product Description:	Mouse Hsp60 Recombinant Protein										
Format:	Stored in 10mM Tris-HCl pH-7.5, 150 mM NaCl, 1.0 mM EDTA, 1.0 mM DTT										
Application:	WB Control: 100 ng of protein recommended (Colorimetric) ATPase Activity Assay: Positive <i>The optimal dilution for a specific application must be determined by the investigator</i>										
Purity:	>90 % pure as determined by SDS-PAGE and Western blot analyses This protein does not contain <i>E. coli</i> GroEL as demonstrated by western blot analysis using product SPS-870										
Molecular Weight:	~60 kDa observed										
Concentration:	See product label										
Storage:	Store at -70°C <i>Shipping conditions may differ from the recommended storage temperature</i>										
Related Products:	<table border="0"> <tr> <td>SPA-806</td> <td>Hsp60 Monoclonal Antibody</td> </tr> <tr> <td>SAB-101</td> <td>Goat anti-Mouse Polyclonal Antibody</td> </tr> <tr> <td>EKS-600</td> <td>Hsp60 EIA Kit</td> </tr> <tr> <td>SPP-742</td> <td>Rat Hsp60 Recombinant Protein</td> </tr> <tr> <td>ESP-540</td> <td>Human Hsp60 Protein (Low Endotoxin)</td> </tr> </table>	SPA-806	Hsp60 Monoclonal Antibody	SAB-101	Goat anti-Mouse Polyclonal Antibody	EKS-600	Hsp60 EIA Kit	SPP-742	Rat Hsp60 Recombinant Protein	ESP-540	Human Hsp60 Protein (Low Endotoxin)
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Background:

Mouse Hsp60 belongs to a highly conserved family that includes molecular chaperones from a variety of species such as plant Hsp60 (known as Rubisco binding protein), GroEL, the *E. coli* Hsp60, and the 65 kDa major antigen of mycobacteria. Hsp60 is localized in the mitochondrial matrix of eukaryotes, and in the chloroplast of plants. Hsp60s from divergent species share a number of common characteristics: high abundance; induction with environmental stress such as heat shock; homo-oligomeric structures of either 7 or 14 subunits which reversibly dissociate in the presence of Mg²⁺ and ATP; ATPase activity; and a role in folding and assembly of oligomeric protein structures¹. These similarities correspond with studies in which the single-ring human mitochondrial homolog Hsp60 and its co-chaperonin Hsp10 were expressed in an *E. coli* strain engineered to keep the groE operon under strict regulatory control. The findings demonstrate that expression of Hsp60 -Hsp10 enabled successful performance of all essential *in vivo* functions of GroEL and its co-chaperonin, GroES². Several studies reveal a possible link between members of the Hsp60 family and a number of autoimmune diseases, atherosclerosis, and chlamydial disease. Overexpression of self Hsp60 is seen in the synovial tissue of rheumatoid arthritic (RA) patients, and can accompany both cellular and humoral reactivity against Hsp60 in RA³. Chlamydial heat shock protein Hsp60, a homolog of *E. coli* GroEL, appears capable of eliciting macrophage activation, and several studies reveal a correlation between Hsp60 responses and the immunopathologic manifestations of human chlamydial disease.



SDS-PAGE Analysis:
Lane 1: MWM,
Lane 2: 2.0 µg of purified Mouse Hsp60 Protein (SPP-741)

Western Blot Analysis: Lane 1: MWM;
Lane 2: 100ng Mouse Hsp60 Protein (SPP-741); Lane 3: 100ng *E. coli* GroEL Protein (SPP-610); Left blot probed with Hsp60 mAb (SPA-806) at 1.0 µg/ml; Right blot probed with GroEL mAb (SPS-870) at 1.0

References:

1. Jindal, S., *et al.* (1989) Mol and Cell Biol **9**, 2279-2283.
2. Nielsen, K.L., *et al.* (1999) J Bacteriol. **181**, 5871-5875.
3. Van Roon, J.A-G., *et al.* (1997) J Clin Invest. **100**, 459-463.

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5777 Hines Drive • Ann Arbor, MI • 48108 | Tel: 800-833-8651 or 800-668-6113 | Fax: 734-668-2793
www.assaydesigns.com | orders@assaydesigns.com | technical@assaydesigns.com

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