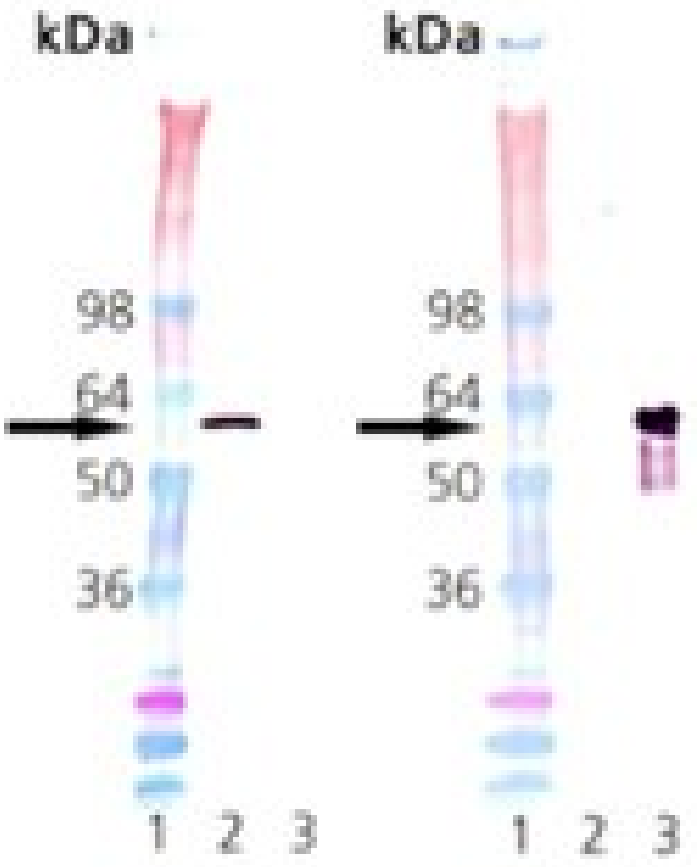
HSP60 (rat), (recombinant)

Recombinant rat Hsp60, a mitochondrial chaperone that facilitates protein folding and oligomer assembly, stress-inducible and associated with immune and inflammatory responses.

Rat 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 Mg+ and ATP; ATPase activity; and a role in folding and assembly of oligomeric protein structures. 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, GroES. Several studies reveal a possible link between members of the Hsp60 family and a number of autoimmune diseases, atherosclerosis, and chlamydial dise ase. 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 RA. 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.

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Western Blot analysis: Lane 1: MW marker; Lane 2: 100ng Rat HSP60 Protein (Prod. No. ADI-SPP-742); Lane 3: 100ng E. coli GroEL Protein (Prod. No. ADI-SPP-610); Left Blot probed with HSP60 mAb (Prod. No. ADI-SPA-806) at 1.0µg/ml; Right Blot probed with GroEL mAb (Prod. No. ADI-SPS-870) at 1.0µg/ml



SDS-PAGE analysis: Lane 1: MWM, Lane 2: 2.0µg of purified Rat HSP60 Protein (Prod. No. ADI-SPP-742)

Handling & Storage

Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name	Chaperonin 60, CPN60, HspD1, Heat shock protein 60
Application Notes	ATPase activity assay (positive). Western blot control.
Formulation	Liquid. In 50mM TRIS-HCl, pH 7.5, containing 150mM sodium chloride, 0.1mM PMSF, and 1.0mM DTT.
MW	~60kDa
Purity	≥85% (SDS-PAGE; Western blot)
Purity Detail	Purified by multi-step chromatography.
Source	Produced in *E. coli*.
UniProt ID	P63039

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