

# GroES (*E. coli*), (recombinant)

The *E. coli* heat shock proteins GroEL and GroES are two of the most thoroughly characterized members of a class of proteins known collectively as "molecular chaperones". GroEL (cpn60; Hsp60 homolog) is an acidic 60kDa *E. coli* heat shock protein which possesses a weak ATPase activity. In its native form, GroEL exists as a 14-mer consisting of two stacked rings each composed of seven identical subunits of Mr ~57,250. GroES (cpn10; Hsp10 homolog) consists of a single ring of seven identical subunits of Mr ~10,350. Molecular chaperones, such as GroEL and GroES, are thought to function by interacting with transiently exposed interactive surfaces during their nascent synthesis, folding, transport and oligomerization. The net effect of chaperone participation in these processes is a reduction in inappropriate protein-protein interactions that might produce a nonfunctional structure. The GroEL and GroES genes, constituting the GroE operon, are members of the heat shock regulon of *E. coli*. Synthesis of the GroE protein, which accounts for approximately 1% of the cellular protein at 37°C, increases to about 10% of the total protein content upon shifting the growth temperature to 46°C.

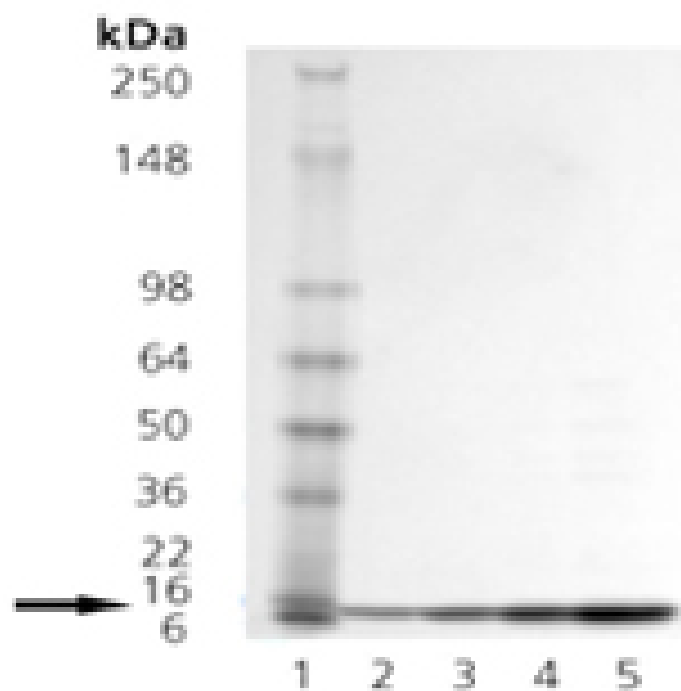
## Ordering Information

[Order Online »](#)

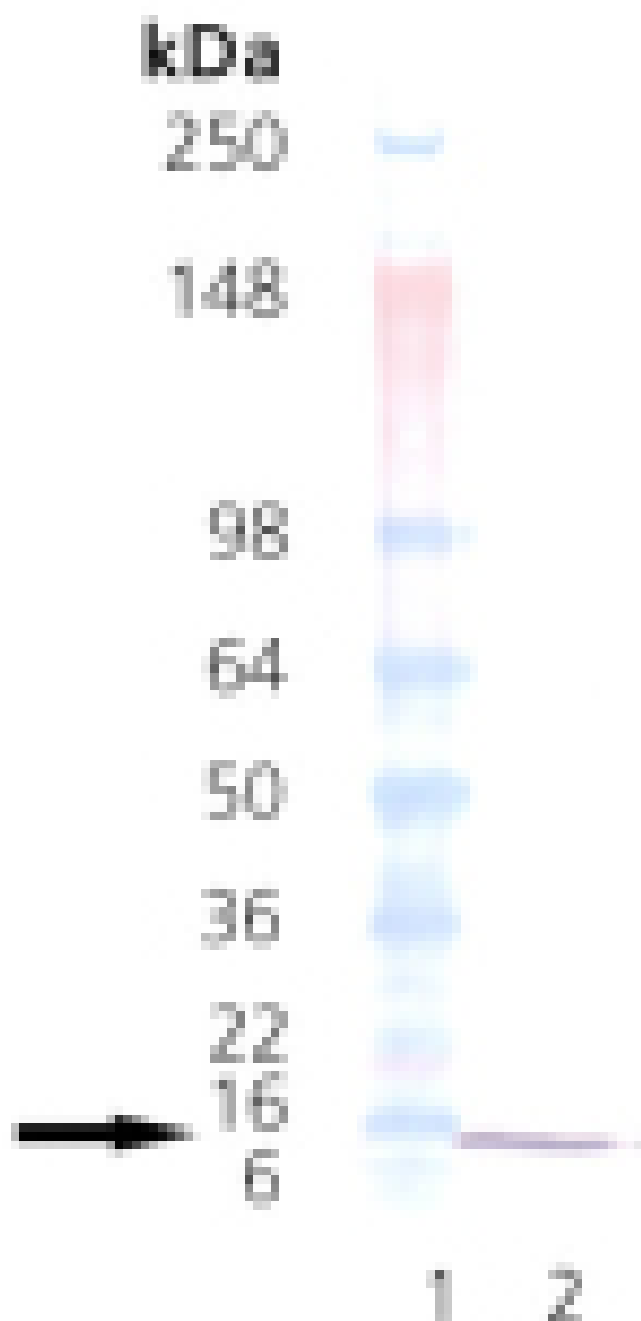
ADI-SPP-620-D	50µg
ADI-SPP-620-F	200µg

## Manuals, SDS & CofA

[View Online »](#)



SDS-PAGE analysis: Lane 1: MW marker, Lane 2: 0.5 $\mu$ g, Lane 3: 1 $\mu$ g, Lane 4: 2 $\mu$ g, Lane 5: 5 $\mu$ g GroES



Western Blot analysis: Lane 1: MWM, Lane 2: GroES probed with anti-GroES pAb.

## Handling & Storage

Long Term Storage      -80°C

Shipping      Dry Ice

**Regulatory Status** RUO - Research Use Only

## Product Details

**Alternative Name** Heat shock protein 10, HSP10, 10kDa Chaperonin, Protein Cpn10 GroES protein

**Application Notes** Western blot control.

**Formulation** Liquid. In 50mM TRIS, pH 7.5, containing 100mM sodium chloride, 10mM magnesium chloride, and 5mM DTT.

**MW** ~10kDa

**Purity** ≥95% (SDS-PAGE; Western blot)

**Purity Detail** Purified by multi-step chromatography.

**Source** Produced in *E. coli*.

**UniProt ID** P0A6F9 (strain K12)



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