

## HSP65 Mycobacterium

**Description:** Recombinant Mycobacterium Tuberculosis HSP65 is produced in E.coli and has a Mw of 57.4 kDa. The HSP65 protein is fused to His-Tag at N-Terminus and purified by standard chromatography techniques.

Catalog #: HYP5-072

**Synonyms:** Protein Cpn60-2, groEL protein-2, 65 kDa antigen, Heat shock protein 65, Cell wall protein A, Antigen A, groL2, groEL-2.

For research use only.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

### Amino Acid Sequence:

HHHHHHGSAKTIAYDEEARRGLERGLNALADAVKVTLGPKGRNVVLEKKWGAPTITNDGVSIKAE  
IELEDPYEKIGAELVKEVAKKTDDVAGDGTTTATVLAQALVREGLRNVAAGANPLGLKRGIEAVEK  
VTETLLKGAKEVETKEQIAATAAISAGDQSIGDLIAEAMDKVGNVITVEESNTFGLQLELTEGMR  
FDKGYISGYFVTDPERQEAVLEDPYILLVSSKVSTVKDLLPPELVIGAGKPLLIIE

**Purity:** Greater than 95.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

### Formulation:

The HSP65 protein was lyophilized from a concentrated (1mg/ml) solution containing 10mM Na-phosphate pH-7.4, 130mM NaCl and 2.5mM KCl.

### Stability:

Lyophilized HSP65 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution HSP65 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

### Solubility:

It is recommended to reconstitute the lyophilized HSP-65 in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Introduction:

Heat shock proteins induce pro-inflammatory cytokines. Mycobacterial HSPs participate in cytokine expression resulting from infection by M. tuberculosis. Furthermore, HSPs stabilize cellular proteins in response to various sources of stress or injury. HSP65 is one of the most essential defending immunogens against the tuberculosis infection. HSP65 is presented to human CD41 T cells in association with multiple HLA-DR molecules. The M. tuberculosis HSP65 signals through TLR4.

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