# abcam

## Product datasheet

## Recombinant E. coli DnaK protein (His tag) ab241271

### 1 Image

**Description** 

Product name Recombinant E. coli DnaK protein (His tag)

Purity > 90 % SDS-PAGE.

**Expression system** Yeast

Accession Q1RGI8

Protein length Full length protein

Animal free No

Nature Recombinant

Species Escherichia coli

Sequence

MGKIIGIDLGTTNSCVAIMDGTTPRVLENAEGDRTTPSIIAYT

**QDGETLV** 

GQPAKRQAVTNPQNTLFAIKRLIGRRFQDEEVQRDVSIMP

**FKIIAADNGD** 

AWVEVKGQKMAPPQISAEVLKKMKKTAEDYLGEPVTEAV

**ITVPAYFNDAQ** 

RQATKDAGRIAGLEVKRIINEPTAAALAYGLDKGTGNRTIAV

YDLGGGTF

DISIIEIDEVDGEKTFEVLATNGDTHLGGEDFDSRLINYLVEE

**FKKDQGI** 

DLRNDPLAMQRLKEAAEKAKIELSSAQQTDVNLPYITADA

TGPKHMNIKV

TRAKLESLVEDLVNRSIEPLKVALQDAGLSVSDIDDVILVG

GQTRMPMVQ

KKVAEFFGKEPRKDVNPDEAVAIGAAVQGGVLTGDVKDV

LLLDVTPLSLG

**IETMGGVMTTLIAKNTTIPTKHSQVFSTAEDNQSAVTIHVLQ** 

**GERKRAAD** 

NKSLGQFNLDGINPAPRGMPQIEVTFDIDADGILHVSAKDK

**NSGKEQKIT** 

**IKASSGLNEDEIQKMVRDAEANAEADRKFEELVQTRNQG** 

**DHLLHSTRKQV** 

EEAGDKLPADDKTAIESALTALETALKGEDKAAIEAKMQE

**LAQVSQKLME** 

IAQQQHAQQQTAGADASANNAKDDDVVDAEFEEVKDKK

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Predicted molecular weight 71 kDa including tags

Amino acids 1 to 638

Tags His tag N-Terminus

**Description** Recombinant *E. coli* DnaK protein (His tag)

#### **Specifications**

Our Abpromise guarantee covers the use of ab241271 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Liquid

#### **Preparation and Storage**

**Stability and Storage** Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.2

Constituents: Tris buffer, 50% Glycerol (glycerin, glycerine)

#### **General Info**

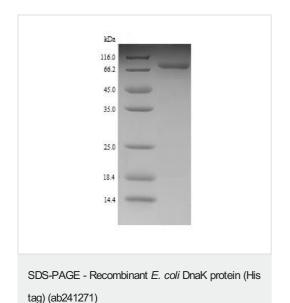
#### Relevance

DnaK is the prokaryotic analogue of eukaryotic Hsp70. Heat shock proteins applies to a group of proteins that assist in the assembly, folding, and translocation of other proteins. In addition, they protect the cell against heat injury or other forms of stress. All cells, prokaryotic and eukaryotic, are able to respond to different cellular stresses by synthesizing these proteins. Heat shock proteins are highly conserved, ubiquitously distributed, and involved in important aspects of viral and bacterial infections, autoimmune diseases, and in cancer immunity. Two families of molecular chaperones have been identified. The members of the Hsp70 family (DnaK/DnaJ/GrpE) bind to the growing polypeptide chain and prevent its premature folding. The chaperonin family (GroEL and GroES) assists in correct folding when the complete polypeptide chain is formed and is transported into the cytosol or mitochondria. All the major heat shock proteins help to suppress irreversible unfolding reactions. These protein folding 'assistants' may have important functions in amyloid diseases where incorrectly folded proteins accumulate as folded aggregates.

#### **Cellular localization**

Cytoplasm. Cell inner membrane; Peripheral membrane protein.

## **Images**



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) analysis with 5% enrichment gel and 15% separation gel of ab241271.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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