# abcam

## Product datasheet

## Recombinant DnaK protein ab51121

2 References 1 Image

**Description** 

Product name Recombinant DnaK protein

Purity > 85 % SDS-PAGE.

Expression system Escherichia coli

Protein length Full length protein

Animal free No

Nature Recombinant

Sequence MGKIIGIDLG TTNSCVAIMD GTTPRVLENA EGDRTTPSII

AYTQDGETLV GQPAKRQAVT NPQNTLFAIK RLIGRRFQDE EVQRDVSIMP FKIIAADNGD AWVEVKGQKM APPQISAEVL KKMKKTAEDY

LGEPVTEAVI TVPAYFNDAQ RQATKDAGRI AGLEVKRIIN EPTAAALAYG LDKGTGNRTI AVYDLGGGTF DISIIEIDEV

DGEKTFEVLA TNGDTHLGGE DFDSRLINYL VEEFKKDQGI DLRNDPLAMQ RLKEAAEKAK

IELSSAQQTD VNLPYITADA TGPKHMNIKV TRAKLESLVE

DLVNRSIEPL KVALQDAGLS VSDIDDVILV GGQTRMPMVQ KKVAEFFGKE PRKDVNPDEA VAIGAAVQGG VLTGDVKDVL LLDVTPLSLG

IETMGGVMTT LIAKNTTIPT KHSQVFSTAE DNQSAVTIHV

LQGERKRAAD NKSLGQFNLD GINPAPRGMP

QIEVTFDIDA DGILHVSAKD KNSGKEQKIT IKASSGLNED

EIQKMVRDAE ANAEADRKFE ELVQTRNQGD HLLHSTRKQV EEAGDKLPAD DKTAIESALT ALETALKGED KAAIEAKMQE LAQVSQKLME IAQQQHAQQQ TAGADASANN AKDDDVVDAE

FEEVKDKK

Amino acids 1 to 638

## **Specifications**

Our **Abpromise guarantee** covers the use of **ab51121** in the following tested applications.

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

1

SDS-PAGE

**Form** 

Liquid

## **Preparation and Storage**

## Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.

pH: 7.50

 $Constituents: 0.077\% \ DTT, 0.395\% \ Tris \ HCI, 10\% \ Glycerol \ (glycerin, glycerine), 0.58\% \ Sodium$ 

chloride

#### **General Info**

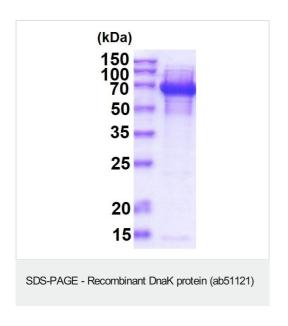
#### Relevance

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**



15% SDS-PAGE

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