

Recombinant E.coli Dnak(1-384aa) protein

Catalog Number: DNK3002

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-384aa

UniProt No.

P0A6Y8

NCBI Accession No.

NP_414555

Alternative Names

dnaK, Dnak (N-term, 1-384), ATPase binding domain, Heat shock protein 70, Heat shock 70 kDa protein, HSP70, Chaperone protein dnaK, Chaperone Hsp70, Co chaperone with DnaJ,

PRODUCT SPECIFICATION

Molecular Weight

41.6 kDa (384aa)

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 25mM Tris-HCl buffer (pH 7.5) containing 100mM NaCl, 5mM DTT, 10%glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level**Tag**

Non-Tagged

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

DnaK, originally identified for its DNA replication by bacteriophage lambda in E. coli is the bacterial hsp70 chaperone. This protein is involved in the folding and assembly of newly synthesized polypeptide chains and in preventing the aggregation of stress-denatured proteins. DnaK (amino acids1-384) is N-terminal ATPase domain and ATP bound to the ATPase domain induces a conformational change in the substrate binding domain

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(residues385-638). The protein coding region of the ATPase domain of DNAK (amino acids 1-384) was amplified by PCR and cloned into an E. coli expression vector. The ATPase domain of DNAK was overexpressed in E. coli and the recombinant protein was purified to apparent homogeneity by using conventional column chromatography techniques.

Amino acid Sequence

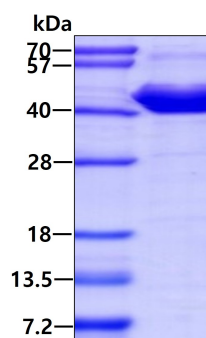
MGKIIGIDLG TTNSCVAIMD GTTPRVLENA EGDRTTPSII AYTQDGETLV GQPAKRQAVT NPQNTLFAIK RLIGRRFQDE
EVQRDVSIMP FKIIAADNGD AWVEVKGQKM APPQISAEVL KKMCKTAEDY LGEPVTEAVI TVPAYFNDAQ RQATKDAGRI
AGLEVKRIIN EPTAAALAYG LDKGTGNRTI AVYDLGGGTF DISIIEIDEV DGEKTFEVL TNGDTHLGGE DFDSRLINYL
VEEFKKDQGI DLRNDPLAMQ RLKEAAEKAK IELSSAQQT VNLPIYITADA TGPKHMKV TRAKLESLVE DLVNRSEPL
KVALQDAGLS VSDIDDVILV GGQTRMPMVQ KKVAEFFGKE PRKDVNPDEA VAIGAAVQGG VLTG

General References

Bardwell & Craig (1984) Proc. Natl. Acad. Sci. 81, 848-852
Zhu et al., (1996) Science. 272, 1606-1614.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.