Product Data Sheet

Product Name:	DnaK ATPase-BD E.Coli
Cat. No.:	GP25075
Batch No.:	1

Product Data

Purity	>98%	Source	Escherichia Coli.
Phycical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	HSP-70; HSP70; DnaK; Chaperone protein dnaK; Heat shock protein 70; Heat shock 70 kDa protein; groP; grpF; seg; b0014; JW0013.		
Amino Acid Sequence	MGKIIGIDLG TTNSCVAIMD GTTPRVLENA EGDRTTPSII AYTQDGETLV GQPAKRQAVTNPQNTLFAIK RLIGRRFQDE EVQRDVSIMP FKIIAADNGD AWVEVKGQKM APPQISAEVLKKMKKTAEDY LGEPVTEAVI TVPAYFNDAQ RQATKDAGRI AGLEVKRIIN EPTAAALAYGLDKGTGNRTI AVYDLGGGTF DISIIEIDEV DGEKTFEVLA TNGDTHLGGE DFDSRLINYLVEEFKKDQGI DLRNDPLAMQ RLKEAAEKAK IELSSAQQTD VNLPYITADA TGPKHMNIKV TRAKLESLVE DLVNRSIEPL KVALQDAGLS VSDIDDVILV GGQTRMPMVQ KKVAEFFGKEPRKDVNPDEA VAIGAAVQGG VLTG.		
Formulation	The DnaK protein contains 25mM Tris-HCl, pH7.5, 100mM NaCl, 5mM DTT and 10% Glycerol.		

Introduction

DnaK, originally identified for its DNA replication by bacteriophage l in E. coli is the bacterial HSP-70 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 (residues 385-638). 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 purified to apparent homogeneity by using conventional column chromatography techniques.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store. frozen at -20°C for longer

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.

Background

Recombinant DnaK Substrate Binding Domain produced in E.Coli is a single, non-glycosylated polypeptide chain containing 384 amino acids and having a molecular mass of 41.6 kDa.

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