dnaK
Recombinant DNAK ATPase binding domain (aa 1-384)

Catalog No.	CSI13248	**Quantity:**	10 µg
	CSI13249		50 µg
	CSI13250		1.0 mg

Alternate Names: HSP-70, HSP70, DnaK, Chaperone protein dnaK, Heat shock protein 70, Heat shock 70 kDa protein, groP, grpF, seg, b0014, JW0013.

Description: 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.
Recombinant DnaK Substrate Binding Domain produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 384 amino acids.

Physical Appearance: Sterile filtered colorless solution.

Gene ID: 944750

Source: *E. coli*

Molecular Mass: 48.1 kDa

Formulation: The DnaK protein contains 25 mM Tris-HCl, pH 7.5 + 100 mM NaCl + 5 mM DTT and 10%Glycerol.

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

Amino Acid 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 VLTG.

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

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