



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

## Recombinant *E. Coli* Dnak (HSP70)

**Catalog No.**  
228-10330

**Source:**  
*Escherichia coli*

### ***Synonyms:***

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

### ***Introduction:***

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.

### ***Description:***

Recombinant Dnak produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 638 amino acids and having a molecular mass of 69 kDa.

### ***Source:***

*Escherichia Coli*.

### ***Physical Appearance:***

Sterile filtered colorless solution.

### ***Formulation:***

The DnaK protein contains 25 mM Tris-HCl buffer (pH 7.5), 100 mM NaCl, 5 mM DTT and 10% Glycerol.

### ***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.**

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### ***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 DGEKTFEVL TNGDTHLGGE DFDSRLINYL VEEFKKDQGI  
DLRNDPLAMQ RLKEAAEKAK IELSSAQQTD VNLPHYITADA TGPKHMNIKV  
TRAKLESLVE DLVNRSIEPL KVALQDAGLS VSDIDDVILV GGQTRMPMVQ  
KKVAEFFGKE PRKDVNPDEA VAIGA AVQGG VLTGDVKDVL LLDVTPLSLG  
IETMGGVMTT LIAKNTTIPT KHSQVFSTAE DNQSAVTIHV LQGERKRAAD  
NKSLGQFNLD GINPAPRGMP QIEVTFDIDA DGILHVS AKD KNSGKEQKIT  
IKASSGLNED EIQKMVRDAE ANAEADRKFE ELVQTRNQGD HLLHSTRKQV  
EEAGDKLPAD DKTAIESALT ALETALKGED KAAIEAKMQE LAQVSQKLME  
IAQQQHAQQQ TAGADASANN AKDDDVVDAE FEEVKDKK

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