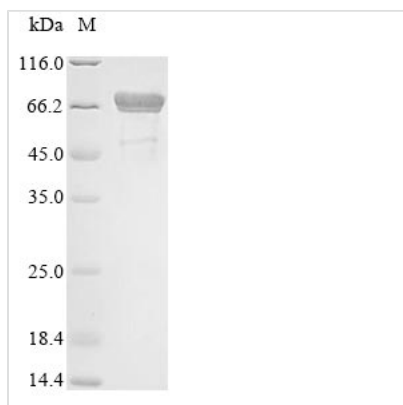




Recombinant Escherichia coli Chaperone protein DnaK (dnaK)

Product Code	CSB-YP633459EGW
Relevance	Acts as a chaperone.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q1RGI8
Alias	HSP70 Heat shock 70 kDa protein Heat shock protein 70
Product Type	Recombinant Protein
Immunogen Species	Escherichia coli (strain UTI89 / UPEC)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MGKIIGIDLGTTNSCVAIMDGTTPRVLENAEGDRTTPSIIAYTQDGETLVGQPAK RQAVTNPQNTLFAIKRLIGRRFQDEEVQRDVSIMPFKIIAADNGDAWVEVKGQK MAPPQISAEVLKKMKKTAEDYLGEVPTEAVITVPAYFNDAQRQATKDAGRIAGL EVKRIINEPTAAALAYGLDKGTGNRTIAVYDLGGGTFDISIIEIDEVDGEKTFEVL ATNGDTHLGGEDFDSRLINYLVEEFKKDQGIDLRNDPLAMQRLKEAAEKAKIEL SSAQQTVDVNLPIYITADATGPKHMKVTRAKLESLVEDLVNRSIEPLKVALQDA GLSVSDIDDDVILVGGQTRMPMVQKKVAEFFGKEPRKDVNPDEAVAIGA AVQG GVLTGDVKDVLVLLDVTPLSLGIETMGGVMTTLIAKNTTIPTKHSQVFSTAEDNQ SAVTIHVLQGERKRAADNKSLGQFNLDGINPAPRGMPQIEVTFDIDADGILHVS AKDKNSGKEQKITIKASSGLNEDEIQKMVRDAEANA EADRKFEELVQTRNQGD HLLHSTRKQVEEAGDKLPADDKTAIESALTALETALKGEDKAAIEAKMQELAQV SQKLMEIAQQQHAQQQTAGADASANNAKDDDDVDAEFEEVKDKK
Lead Time	3-7 business days
Source	Yeast
Gene Names	dnaK
Protein Names	HSP70 Heat shock 70KDA protein Heat shock protein 70
Expression Region	1-638aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	71.1 kDa
Protein Description	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Recombinant E.coli UTI89 / UPEC dnaK Protein is encoded by dnaK gene — recombinant dnaK DNA — that has integrated foreign plasmids into the Yeast genome, the foreign DNA is replicated along with the host DNA. In addition, the expression of foreign proteins requires the use of specialized expression vectors and often necessitates the significant restructuring of the foreign coding sequence. The subsequent expression process includes small-scale expression, protein identification, large-scale expression, and protein purification. The purity of this recombinant dnaK is 90%+.

DnaK is a protein coding gene that encodes Chaperone protein DnaK. According to some research, DnaK may have the following features. Stimulation of DnaK's ATPase activity may contribute to its more efficient recycling. ATP-bound DnaK is the predominant form that initiates interactions with substrates for chaperone activity. DnaK also has a prominent function in stabilizing proteins for subsequent folding by GroEL. The DnaK protein contributed to the growth of E. coli by not only protecting some enzymes from denaturation, but also reactivating some enzymes when they misfolded or aggregated. Substrate shuttling between the DnaK and GroEL systems suggests a chaperone network that promotes protein folding.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.