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# Recombinant human HSP70/HSPA1A protein

Catalog Number: HSP0603

#### PRODUCT INFORMATION

## **Expression system**

E.coli

#### **Domain**

1-641aa

#### UniProt No.

P0DMV8

# **NCBI Accession No.**

NP 005336.3

#### **Alternative Names**

Heat shock 70kDa protein 1A, Heat shock protein family A member 1A, HSP70, HSP70.1, HSP70-1/HSP70-2, HSPA1, HSPA1A, HSPA1B

### **PRODUCT SPECIFICATION**

# **Molecular Weight**

72.2 kDa (661aa) confirmed by MALDI-TOF

#### Concentration

1mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 2mM DTT

#### **Purity**

> 95% by SDS-PAGE

#### **Endotoxin level**

< 1 EU per 1ug of protein (determined by LAL method)

# Tag

His-Tag

# **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**

Hsp70 is a human heat shock protein. Hsp70 is an important part of the cell's machinery for protein folding, and help to protect cells from stress. In most species, there are many proteins that belong to the hsp70 family. Some of these are only expressed under stress conditions, while some are present in cells under normal growth



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conditions and are not heat-inducible. They can be found in different cellular compartments (nuclear, cytosolic, mitochondrial, endoplasmic reticulum, etc...). Recombinant human Hsp70, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

## **Amino acid Sequence**

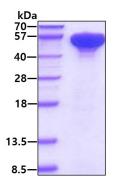
<MGSSHHHHHH SSGLVPRGSH> MAKAAAIGID LGTTYSCVGV FQHGKVEIIA NDQGNRTTPS YVAFTDTERL IGDAAKNQVA LNPQNTVFDA KRLIGRKFGD PVVQSDMKHW PFQVINDGDK PKVQVSYKGD TKAFYPEEIS SMVLTKMKEI AEAYLGYPVT NAVITVPAYF NDSQRQATKD AGVIAGLNVL RIINEPTAAA IAYGLDRTGK GERNVLIFDL GGGTFDVSIL TIDDGIFEVK ATAGDTHLGG EDFDNRLVNH FVEEFKRKHK KDISQNKRAV RRLRTACERA KRTLSSSTQA SLEIDSLFEG IDFYTSITRA RFEELCSDLF RSTLEPVEKA LRDAKLDKAQ IHDLVLVGGS TRIPKVQKLL QDFFNGRDLN KSINPDEAVA YGAAVQAAIL MGDKSENVQD LLLLDVAPLS LGLETAGGVM TALIKRNSTI PTKQTQIFTT YSDNQPGVLI QVYEGERAMT KDNNLLGRFE LSGIPPAPRG VPQIEVTFDI DANGILNVTA TDKSTGKANK ITITNDKGRL SKEEIERMVQ EAEKYKAEDE VQRERVSAKN ALESYAFNMK SAVEDEGLKG KISEADKKKV LDKCQEVISW LDANTLAEKD EFEHKRKELE QVCNPIISGL YQGAGGPGPG GFGAQGPKGG SGSGPTIEEV D

#### **General References**

Gething M-J, et al. (1992). Nature. 355. 33-45 Lewis MJ, et al. EMBO J. (1985) 4:3137-3143

# **DATA**

#### **SDS-PAGE**



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

