

**RPB081Mu01 1.5mg**

**Recombinant Heat Shock 70kDa Protein 1A (HSPA1A)**

**Organism Species: Mus musculus (Mouse)**

***Instruction manual***

FOR IN VITRO USE AND RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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11th Edition (Revised in May, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Met1~Asp641

**Tags:** N-terminal His-Tag

**Tissue Specificity:** Liver, Brain.

**Subcellular Location:** Cytoplasm.

**Purity:** >95%

**Traits:** Freeze-dried powder

**Buffer formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5%Trehalose and Proclin300.

**Original Concentration:** 200ug/mL

**Applications:** SDS-PAGE; WB; ELISA; IP; CoIP; Purification; Amine Reactive Labeling.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 5.7

**Predicted Molecular Mass:** 71.3kDa

**Accurate Molecular Mass:** 60kDa as determined by SDS-PAGE reducing conditions.

**Phenomenon explanation:**

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.

2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## **[ USAGE ]**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **[ STORAGE AND STABILITY ]**

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

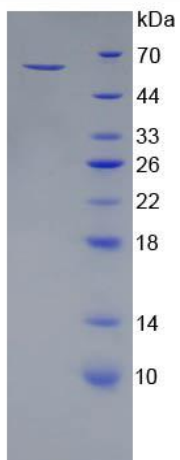
Aliquot and store at -80°C for 12 months.

**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## **[ SEQUENCE ]**

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MAKNTAIGID LGTTYSCVGV FQHGKVEIIA NDQGNRTTPS YVAFTDTERL
IGDAAKNQVA LNPQNTVFDA KRLIGRKFGD AVVQSDMKHW PFQVVNDGDK
PKVQVNYKGE SRSFFPEEIS SMVLTKMKEI AEAYLGHPVT NAVITVPAYF
NDSQRQATKD AGVIAGLNVL RIINEPTAAA IAYGLDRTGK GERNVLIFDL
GGGTFDVSIL TIDGIFEVK ATAGDTHLGG EDFDNRLVSH FVEEFKRKHK
KDISQNKRAV RRLRTACERA KRTLSSSTQA SLEIDSLFEG IDFYTSITRA
RFEELCSDLF RGTLEPVEKA LRDAKMDKAQ IHDLVLVGGG TRIPKVQKLL
QDFFNGRDLN KSINPDEAVA YGAAVQAAIL MGDKSENVQD LLLLDVAPLS
LGLETAGGVM TALIKRNSTI PTKQTQTFTT YSDNQPGVLI QVYEGERAMT
RDNNLLGRFE LSGIPPAPRG VPQIEVTFDI DANGILNVTA TDKSTGKANK
ITITNDKGR L SKEEIERMVQ EAERYKAEDE VQRDRVAAKN ALESYAFNMK
SAVEDEGLKG KLSEADKKKV LDKCQEVISW LDSNTLADKE EFVHKREELE
RVCSP IISGL YQGAGAPGAG GFGAQAPKGA SSGSPTIEEV D
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[ **IDENTIFICATION** ]



**Figure 2. SDS-PAGE**