

# Recombinant Human Heat Shock Protein 90kDa Beta (Grp94), Member 1

**Cat. No.** HSP90B1-338H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human GRP94 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography (819 aa, 94.4 kDa).                                                                                                                                                                                                                                                                                                                                                     |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>    | 22-803 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | GRP94, also known as Heat shock protein 90kDa beta, member 1 (HSP90B1), is an abundant resident endoplasmic reticulum (ER) luminal stress protein which together with cytosolic Hsp90 belongs to the Hsp90 family of molecular chaperones. It plays an important role in maintaining protein homeostasis in the secretory pathway. Also, GRP94 can function in the intracellular trafficking of peptides from the extracellular space to the MHC class I antigen processing pathway of antigen presentation cells. |
| <b>Formulation</b>      | Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 1 mM EDTA, 0.1 M NaCl, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Molecular Weight</b> | 94.4 kDa (819 aa).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Purity</b>           | > 90% by SDS – PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Concentration</b>    | 1 mg/ml (determined by Bradford assay).                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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**Sequence**

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMDDE VDVDGTVEED  
 LGKSREGSRT DDEVVQREEE AIQLDGLNAS QIRELREKSE KFAFQAEVNR  
 MMKLIINSLY KNKEIFLREL ISNASDALDK IRLISLTDEN ALSGNEELTV  
 KIKCDKEKNL LHVTDTGVGM TREELVKNLG TIAKSGTSEF LNKMTAQED  
 GQSTSELIGQ FGVGFYSAFL VADKVIVTSK HNNDTQHIWE SDSNEFSVIA  
 DPRGNTLGRG TTITLVLKEE ASDYLELDTI KNLVKKYSQF INFPIYVWSS  
 KTETVEEPME EEEAAKEEKE ESDDEAAVEE EEEEKKPKTK KVEKTVWDWE  
 LMNDIKPIWQ RPSKEVEEDE YKAFYKSFSK ESDDPMAYIH FTAEGEVTFK  
 SILFVPTSAP RGLFDEYGSK KSDYIKLYVR RVFITDDFHD MMPKYLNFBK  
 GVVDSDDLPL NVSRETQQH KLLKVIRKKL VRKTLDMIKK IADDKYNDTF  
 WKEFGTNIKL GVIEDHSNRT RLAKLLRFQS SHHPTDITSL DQYVERMKEK  
 QDKIYFMAGS SRKEAESSPF VERLLKKGYE VIYLTEPVDE YCIQALPEFD  
 GKRFQNVAKE GVKFDESEKT KESREAVEKE FEPLLNWMKD KALKDKIEKA  
 VVSQRLTESP CALVASQYGW SGNMERIMKA QAYQTGKDIS TNYASQKKT  
 FEINPRHPLI RDMLRRIKED EDDKTVLDLA VVLFETATLR SGYLLPDTKA  
 YGDRIERMLR LSLNIDPDAK VEEEPPEEPE ETAEDTTEDT EQDEDEEMDV  
 GTDEEEETAK ESTAEKDEL

**Storage**

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**GENE INFORMATION**
**Gene Name**

HSP90B1

**Synonyms**

HSP90B1; heat shock protein 90kDa beta (Grp94), member 1; HSP90B1 heat shock protein 90kDa beta (Grp94), member 1; ECGP; GP96; TRA1; GRP94; 94 kDa glucose-regulated protein; Heat shock protein 90 kDa beta member 1; Tumor rejection antigen 1; Tumor rejection antigen-1 (gp96); endothelial cell (HBMEC) glycoprotein; glucose regulated protein, 94 kDa; gp96 homolog; heat shock protein

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90kDa beta, member 1; tumor rejection antigen (gp96) 1.

**Gene ID** [7184](#)

**mRNA Refseq** [NM\\_003299.1](#)

**Protein Refseq** [NP\\_003290.1](#)

**MIM** [191175](#)

**UniProt ID** [P14625](#)

**Chromosome Location** 12q24.2-q24.3

**Function** ATP binding; RNA binding; calcium ion binding; low-density lipoprotein receptor binding; nucleotide binding; unfolded protein binding; virion binding.

PDBrendering based  
on 1qy5. Available  
structures: 1qy5, 1qy8, 1c

