

## Product datasheet for **RG200270**

### **HSP70-1A (HSPA1A) (NM\_005345) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	HSP70-1A (HSPA1A) (NM_005345) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HSP70-1A
Synonyms:	HEL-S-103; HSP70-1; HSP70-1A; HSP70-2; HSP70.1; HSP70.2; HSP70I; HSP72; HSPA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG200270 representing NM\_005345  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAAAGCCGCGCGATCGGCATCGACCTGGCACCACCTACTCTCGCTGGGGTGTTC AACACG  
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 CAGCGGACTGTACCAGGTGCCGGTGGTCCCGGGCTGGGGGCTTCGGGGCTCAGGGTCCAAGGGAGGG  
 TCTGGGTGAGCCCCACCATTGAGGAGGTGGAT

**ACGCGT**ACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG200270 representing NM\_005345  
 Red=Cloning site Green=Tags(s)

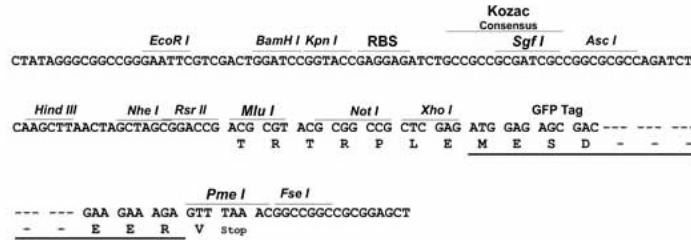
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 SSGSPTIEEVD

**TRTRPLE** – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**ACCN:** NM\_005345

**ORF Size:** 1923 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_005345.4](#), [NP\\_005336.2](#)

**RefSeq Size:** 2383 bp

**RefSeq ORF:** 1926 bp

**Locus ID:** 3303

**UniProt ID:** [P08107](#)

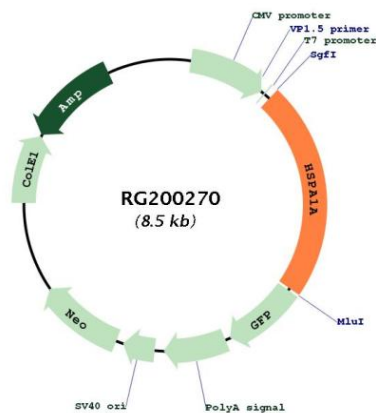
**Cytogenetics:** 6p21.33

**Domains:** HSP70

**Protein Pathways:** Antigen processing and presentation, Endocytosis, MAPK signaling pathway, Prion diseases, Spliceosome

**Gene Summary:** This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. In conjunction with other heat shock proteins, this protein stabilizes existing proteins against aggregation and mediates the folding of newly translated proteins in the cytosol and in organelles. It is also involved in the ubiquitin-proteasome pathway through interaction with the AU-rich element RNA-binding protein 1. The gene is located in the major histocompatibility complex class III region, in a cluster with two closely related genes which encode similar proteins. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG200270