

Product datasheet for **SC320646**

HSP70-1A (HSPA1A) (NM_005345) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HSP70-1A (HSPA1A) (NM_005345) Human Untagged Clone
Tag:	Tag Free
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 (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_005345.4
 CCTTTTTCGAGAGTGACTCCCCTGTCCCAAGGCTTCCCAGAGCGAACCTGTGCGGCTGC
 AGGCACCGGCGCTCGAGTTTCCGGCGTCCGGAAGGACCGAGCTTCTCGCGGATCCAG
 TGTTCCGTTTCCAGCCCCAATCTCAGAGCGGAGCCGACAGAGAGAGAGGAAACCGGCATG
 GCCAAAGCCGCGGCGATCGGCATCGACCTGGGCACCACCTACTCTGCGTGGGGGTGTT
 CAACACGGCAAGGTGGAGATCATCGCAACGACCAGGGCAACCGCACCCACCCAGCTAC
 GTGGCCTTACCGACACCGAGCGGCTCATCGGGGATGCGGCCAAGAACCAGGTGGCGTG
 AACCCGCAAGAACCCTGTTTGACGCGAAGCGGCTGATCGGCCGCAAGTTCGGCGACCCG
 GTGGTGCAGTCGGACATGAAGCACTGGCCTTTCAGGTGATCAACGACGGAGACAAGCCC
 AAGGTGCAGTGAGCTACAAGGGGGAGACCAAGGCATTCTACCCCGAGGAGATCTCGTCC
 ATGGTGTGACCAAGATGAAGGAGATCGCCGAGGCGTACCTGGGCTACCCGGTGACCAAC
 GCGGTGATCACCGTGCCGGCCTACTTCAACGACTCGCAGCGCCAGGCCACCAAGGATGCG
 GGTGTGATCGCGGGGCTCAACGTGCTGCGGATCATCAACGAGCCCACGGCCGCCCATC
 GCCTACGGCCTGGACAGAACGGCAAGGGGGAGCGCAACGTGCTCATCTTTGACCTGGG
 GGGGGCACCTTCGACGTGCCATCCTGACGATCGACGACGGCATCTTCGAGGTGAAGGCC
 ACGGCCGGGACACCCACCTGGGTGGGGAGGACTTTGACAACAGGCTGGTGAACCACTTC
 GTGGAGGAGTTCAAGAGAAAACAAGAAGGACATCAGCCAGAACAAGCGAGCCGTGAGG
 CGGCTGCGCACCCCTGCGAGAGGGCCAAGAGGACCCTGTGTCAGCACCCAGGCCAGC
 CTGGAGATCGACTCCCTGTTTGGAGGCTCGACTTCTACACGTCCATCACCAGGGCGAGG
 TTCGAGGAGCTGTGCTCCGACCTGTTCCGAAGCACCTGGAGCCCGTGGAGAAGGCTCTG
 CGCGACGCCAAGTGGACAAGGCCAGATTACGACCTGGTCTGGTTCGGGGGCTCCACC
 CGCATCCCAAGTGCAGAAGCTGCTGCAGGACTTCTTCAACGGGCGGACCTGAACAAG
 AGCATCAACCCGACGAGGCTGTGGCCTACGGGGCGGCGGTGCAGGCGGCCATCCTGATG
 GGGGACAAGTCCGAGAAGCTGCAGGACCTGCTGCTGCTGGACGTGGCTCCCTGTGCTG
 GGGCTGGAGACGGCCGGAGGCGTGTGACTGCCCTGATCAAGCGCAACTCCACCATCCCC
 ACCAAGCAGACGCAGATCTTACCACCTACTCCGACAACCAACCCGGGTGCTGATCCAG
 GTGTACGAGGGCGAGAGGGCCATGACGAAAGACAACAATCTGTTGGGGCGCTTCGAGCTG
 AGCGGCATCCCTCCGGCCCCAGGGGCGTGCCCCAGATCGAGGTGACCTTCGACATCGAT
 GCCAACGGCATCCTGAACGTACGGCCACGGACAAGAGCACCGGCAAGGCCAACAAGATC
 ACCATACCAACGACAAGGGCCGCTGAGCAAGGAGGAGATCGAGCGCATGGTGCAGGAG
 GCGGAGAAGTACAAAGCGGAGGACGAGGTGACGCGGAGAGGGTGTGAGCCAAGAAGCC
 CTGGAGTCTACGCCTTCAACATGAAGAGCGCCGTGGAGGATGAGGGGCTCAAGGGCAAG
 ATCAGCGAGGCGGACAAGAAGAAGTTCTGGACAAGTGTCAAGAGGTGATCTCGTGGCTG
 GACGCCAACACCTTGGCCGAGAAGGACGAGTTTGAGCACAAGAGGAAGGAGCTGGAGCAG
 GTGTGTAACCCCATCATCAGCGGACTGTACCAGGGTGCCGGTGGTCCCGGGCCTGGGGG
 TTCGGGGCTCAGGGTCCCAAGGGAGGGTCTGGGTGAGGCCACCATTGAGGAGGTGGAT
 TAGGGGCTTTCCAAGATTGCTGTTTTTGTGTTTGGAGCTTCAAGACTTTGCATTTCTAG
 TATTTCTGTTTGTGAGTTCTCAATTTCTGTGTTTGAATTTTGGTGAAG
 TACTGAACCTGTTTTTTCCGGTTTCTACATGCAGAGATGAATTTATACTGCCATCTTA
 CGACTATTTCTTTTTAATACACTTAACTCAGGCCATTTTTTAAGTTGGTTACTTCAA
 AGTAAATAAACTTTAAAATTCAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_005345

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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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]