

## Product datasheet for **SC118784**

### HSPA6 (NM\_002155) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HSPA6 (NM_002155) Human Untagged Clone
Tag:	Tag Free
Symbol:	HSPA6
Synonyms:	HSP70B'
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >SC118784 representing NM\_002155.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGCAGGCCCCACGGGAGCTCGCGGTGGGATCGACCTGGGACCACTACTCGTGCCTGGGCGTGTTC
CAGCAGGGCCCGGTGGAGATCCTGGCCAACGACCAGGGCAACCGCACCCAGCTACGTGGCCTTC
ACCGACACCGAGCGGCTGGTCGGGGACGCGGCCAAGAGCCAGGCGGCCCTGAACCCACAAACCGTG
TTCGATGCCAAGCGGCTGATCGGGCGCAAGTTCGCGGACACCACGGTGCAGTCGGACATGAAGCACTGG
CCCTTCGGGTGGTGAAGGAGGGCGCAAGCCCAAGGTGCGCGTATGCTACCGGGGGAGGACAAGACG
TTCTACCCCGAGGAGATCTCGTCCATGGTGTGAGCAAGATGAAGGAGACGGCCGAGGCGTACCTGGGC
CAGCCCGTGAAGCAGCAGTGTACCCGTGCCCGCTATTTCAATGACTCGCAGCGCCAGGCCACCAAG
GACGCGGGGGCCATCGCGGGCTCAACGTGTTGCGGATCATCAATGAGCCACGGCAGTGCATCGCC
TATGGGCTGGACCGGGGGCGGGGAGAGCGCAACGTGCTCATTTTTGACCTGGGTGGGGGCACCTTC
GATGTGTCGGTCTCTCCATTGACGCTGGTGTCTTTGAGGTGAAAGCCACTGCTGGAGATACCCACCTG
GGAGGAGAGGACTTCGACAACCGGCTCGTGAACCACTTCATGGAAGAATTCGGCGGAAGCATGGGAAG
GACCTGAGCGGGAACAAGCGTGCCCTGCGCAGGCTGCGCACAGCCTGTGAGCGCGCAAGCGCACCCCTG
TCCTCCAGCACCCAGGCCACCCTGGAGATAGACTCCCTGTTTCGAGGGCGTGGACTTCTACAGTCCATC
ACTCGTGCCCGCTTTGAGGAACTGTGCTCAGACCTCTTCCGACAGCCCTGGAGCCGGTGGAGAAGGCC
CTGCGGGATGCCAAGCTGGACAAGGCCAGATTATGACGTGCTCCTGGTGGGGGCTCCACACGCATC
CCCAAGGTGCAGAAGTTGCTGCAGGACTTCTTCAACGGCAAGGAGCTGAACAAGAGCATCAACCTGAT
GAGGCTGTGGCCTATGGGGCTGCTGTGCAGGCGGCCGTGTTGATGGGGGACAAATGTGAGAAAGTGCAG
GATCTCCTGCTGCTGGATGTGGCTCCCTGTCTGCGGGCTGGAGACAGCAGGTGGGGTGTGACCCAG
CTGATCCAGAGGAACGCCACTATCCCCACCAAGCAGACCCAGACTTTCCACACCTACTCGGACAACCAG
CCTGGGGTCTTATCCAGGTGTATGAGGGTGAAGGGCCATGACCAAGGACAACAACCTGCTGGGGCGT
TTTGAACCTCAGTGGCATCCCTCCTGCCCCAGTGGAGTCCCCAGATAGAGGTGACTTTTGACATTGAT
GCTAATGGCATCCTGAGCGTGACAGCCACTGACAGGAGCACAGGTAAGGCTAACAAGATCACCATCACC
AATGACAAGGGCCGGCTGAGCAAGGAGGAGGTGGAGAGGATGGTTCATGAAGCCGAGCAGTACAAGGCT
GAGGATGAGGCCAGAGGACAGAGTGGCTGCCAAAACTCGCTGGAGGCCATGTCTTCCATGTGAAA
GGTTCTTTGCAAGAGGAAAGCCTTAGGGACAAGATTTCCGAAGAGGACAGGCGCAAATGCAAGACAAG
TGTCGGGAAGTCTTGCCTGGCTGGAGCACAACCAGCTGGCAGAGAAGGAGGAGTATGAGCATCAGAAG
AGGGAGCTGGAGCAAATCTGTGCGCCCATCTTCTCCAGGCTCTATGGGGGCGCTGGTGTCCCTGGGGGC
AGCAGTTGTGGCACTCAAGCCCGCCAGGGGGACCCAGCACCCGGCCCATCATTGAGGAGTTGATTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
```

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja2491\\_g11.zip](https://cdn.origene.com/chromatograms/ja2491_g11.zip)

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_002155

**Insert Size:** 1932 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](#)

**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\\_002155.4](#)

**RefSeq Size:** 2370 bp

**RefSeq ORF:** 1932 bp

**Locus ID:** 3310

**UniProt ID:** [P17066](#)

**Cytogenetics:** 1q23.3

**Domains:** HSP70

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

**MW:** 71 kDa

**Gene Summary:**

Molecular chaperone implicated in a wide variety of cellular processes, including protection of the proteome from stress, folding and transport of newly synthesized polypeptides, activation of proteolysis of misfolded proteins and the formation and dissociation of protein complexes. Plays a pivotal role in the protein quality control system, ensuring the correct folding of proteins, the re-folding of misfolded proteins and controlling the targeting of proteins for subsequent degradation. This is achieved through cycles of ATP binding, ATP hydrolysis and ADP release, mediated by co-chaperones. The affinity for polypeptides is regulated by its nucleotide bound state. In the ATP-bound form, it has a low affinity for substrate proteins. However, upon hydrolysis of the ATP to ADP, it undergoes a conformational change that increases its affinity for substrate proteins. It goes through repeated cycles of ATP hydrolysis and nucleotide exchange, which permits cycles of substrate binding and release (PubMed:26865365).[UniProtKB/Swiss-Prot Function]