

## Product datasheet for **SC311161**

### HSF4 (NM\_001040667) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HSF4 (NM_001040667) Human Untagged Clone
Tag:	Tag Free
Symbol:	HSF4
Synonyms:	CTM; CTRCT5
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_001040667 edited  
 GCCCGCAGCGGCCGGGCCGAGCGCAGAGCCGGGCCGAGACTGCACCATGCAGGAAGCGC  
 CAGCTGCGCTGCCACGGAGCCAGGCCCCAGCCCCGTCCTGCCTTCTCGGCAAGCTAT  
 GGGCGCTGGTGGGGGACCCAGGCACAGACCACCTGATCCGCTGGAGCCCAGCGGGACCA  
 GTTTCCTCGTAAGCGACCAGAGCCGTTTCGCCAAGGAAGTGCTGCCCCAGTATTTCAAGC  
 ATAGCAACATGGCGAGCTTCGTGCGCCAACCAACATGTACGGTTTTCGGAAGGTGGTGA  
 GCATCGAGCAGGGCGGCTGCTTAGGCCGAGCGCACCACGTCGAGTTCAGCAGCCCGA  
 GCTTCGTGCGCGCCGCGAGCAGCTACTGGAGCGCGTGCAGCGCAAGGTGCCCGCGCTGC  
 GCGGCGACGACGCGCGCTGGCGCCCGGAGGACCTGGGTGCGACTACTGGGCGAGGTGCAGG  
 CTTTGGGGGAGTGCAGGAGAGCACCGAGGCGCGGCTGCGGGAGCTCAGGCAGCAGAACG  
 AGATCTTGTGGCGGGAGGTGGTACACTTCGGCAGAGCCACGGTCAGCAGCACCGGGTCA  
 TTGGCAAGCTGATCCAGTGTCTCTTTGGGCCACTTCAGGCGGGCCGAGCAATGCAGGAG  
 GCAAGAGAAAGCTGTCCCTGATGCTGGATGAGGGGAGCTCATGCCAACACCTGCCAAGT  
 TCAACACCTGCCCTCTACCTGGTGCCCTTCTGCAGGACCCTACTTCATCCAGTCGCCTC  
 TCCCAGAGACAAATTTGGGCCTTAGCCCTCACAGGGCCAGGGGCCCATCATCTCTGACA  
 TCCCAGAAGACTCTCCATCCCCTGAGGGGACCAGGCTTTCTCCCTCCAGTGATGGCAGGA  
 GGGAGAAGGGCCTGGCACTGCTCAAAGAAGAGCCGGCCAGTCCAGGGGGGGATGGCGAGG  
 CCGGGCTGGCCCTGGCCCCAAACGAGTGTGACTTCTGCGTGACAGCCCCCGCCACTGC  
 CTGTGGCTGTGGTGCAGGCCATCCTGGAAGGGAAGGGAGCTTCAGCCCCGAGGGGCCCA  
 GGAATGCCAACAGCCTGAACAGGGGATCCCAGGGAGATACCTGACAGGGGGCCTCTGG  
 GCCTGGAAGCGGGGACAGGAGCCAGAGAGTCTGCTGCCTCCGATGCTGCTTACGCCCC  
 CTAAGAAGAGTGGAACTGCAGGGCCTTAGATGTGCTGGGCCCCAGTCTCCAAGGGC  
 GCAATGGACCTGATGGACTTGGACATGGAGCTGTCTTGATGCAGCCCTTGGTTCCAG  
 AGCGGGGTGAGCCTGAGCTGGCGGTCAAGGTGTTAAATTCCTCAAGCCAGGGAAGGACC  
 CCACGCTCGGGGCCACTCCTGCTGGATGTCCAGGCGGCCTTGGGAGGCCAGCCCTGG  
 GCCTGCCTGGGGCTTTAACCATTATAGCACTCCTGAGAGCCGGACTGCCTCCTACTTGG  
 GCCCGAAGCCAGTCCCTCCCCCTAAGACCCCGCGCCTCTGAAGGGGCTTGAACAGTC  
 CGCCGCTGCACATCCTTCTGGCTTCTGGCGCCCTATCGGGGTGAGCGAAGCCCC  
 ACTACTAAATGGCCTCTCCTCACTACCCCGACTATCCCTGCACATAAACTCCG

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_001040667 unedited  
 NGGTTAGATATTTGTATACGACTCACTATAGCGGCCGCGCAATTCGGCACGAGGGCCC  
 GCAGCGGCCGGGCCGAGCGCAGAGCCGGGCCGAGACTGCACCATGCAGGAAGCGCCAGC  
 TGCGCTGCCACGGAGCCAGGCCCCAGCCCCGTCCTGCCTTCTCGGCAAGCTATGGGC  
 GCTGGTGGGGGACCCAGGCACAGACCCTGATCCGCTGGAGCCCAGCGGGACCAAGTTT  
 CCTCGTAAGCGACCAGAGCCGTTTCGCCAAGGAAGTGCTGCCCCAGTATTTCAAGCATAG  
 CAACATGGCGAGCTTCGTGCGCCAACCAACATGTACGGTTTTCGGAAGGTGGTGCAT  
 CGAGCAGGGCGGCTGCTTAGGCCGAGCGCACCACGTCGAGTTCAGCACCCGAGCTT  
 CGTGCGCGGCCGCGAGCAGCTACTGGAGCGCGTGCAGCGCAAGGTGCCCGCGCTGCGCGG  
 CGACGACGCGCGCTGGCGCCCGGAGGACCTGGGTGCGACTACTGGGCGAGGTGCAGGCTTT  
 GCGGGGAGTGCAGGAGAGCACCGAGGCGCGGCTGCGGGAGCTCAGGCAGCAGAACGAGAT  
 CTTGTGGCGGGAGGTGGTACACTTCGGCAGAGCCACGGTCAGCAGCACCGGGTCAATTGG  
 CAAGCTGATCCAGTGTCTCTTTGGGCCACTTCAGGCGGNGCCGAGCAATGCAGGAGGCAA  
 GAGAAAGCTGTCCCTGATGCTGGATGAGGGGAGCTCATGCCAACACCTGCCAAGTTCAA  
 CACCTGCCCTCTACCTGGTGCCCTCTGCNAGACCCCTACTTCATCCAGTCGCCTCTCCC  
 AGAGACAAATTTGGGGCTAGCCCTCACAGGGCCAGGGGCCCATCATCTCT

<b>3' Read Nucleotide Sequence:</b>	>Forward primer walk for NM_001040667 unedited ATCTTTGGGAGTCANAAGAGGGGCCCTGGCCCTGTGAGGCTAAGGCCAAATTGTCTCT GGGAGAGGCGACTGGATGAAGTAGGGGTCTGCAGAAGGGCACCAGGTAGAGGGCAGGTG TTGAACTTGGCAGGTGTTGGGCATGAGCTCCCCTCATCCAGCATCAGGGACAGCTTTCTC TTGCCTCCTGCATTGCTCGGCCCGCCTGAAGTGGCCAAAGAGACACTGGATCAGCTTG CCAATGACCCGGTGTCTGCTGACCGTGGCTCTGCCGAAGTGTACCACCTCCCGCCACAAG ATCTCGTTCTGCTGCCTGAGCTCCCGCAGCCGCGCCTCGGTGCTCTCCTGCACTCCCCGC AAAGCCTGCACCTCGCCCAGTAGTCGACCCAGGTCTCCGGGCGCCAGCGCCGTCGTCTG CCGCGCAGCGCGGCACCTTGCGCCGACGCGCTCCAGTAGCTGCTCGCGCCGCGCACG AAGCTCGGGTGTGAACTCGACGTGGTCGCGCTCCGGCCTAAGCAGGCCGCCCTGCTCG ATGCTCACCACTCCGAAAACCGTACATGTTGAGTTGGCGCACGAAGCTCGCCATGTTG CTATGCTTGAATACTGGGGCAGCACTTCTTGGCGAAACGGCTCTGGTCGTTACGAGG AAAGTGGTCCCGCTNCGGCTCCAGCGGATCAGGTGGTCTGTGCCTGGTCCCCACCAGC GCCCATAGCTTTGCGAGGAAGGCANGCACNGNGCTGGGGCCTGGTCCGTGGGCAGCGCA GCTGGCGCTTCTGCATGGTGCAGTCTCGGGCCCGCTCTGCGCTCGGGCCCGCCGCTGC GGGCCCTCG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_001040667
<b>Insert Size:</b>	1700 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	There is 1 nucleotide difference between the OriGene clone and the NCBI reference ORF. OriGene considers these to be polymorphisms and to reflect the natural differences between individuals. These result in the substitution of 1 amino acids.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u>NM_001040667.1, NP_001035757.1</u>
<b>RefSeq Size:</b>	2535 bp
<b>RefSeq ORF:</b>	1479 bp
<b>Locus ID:</b>	3299
<b>UniProt ID:</b>	<u>Q9ULV5</u>
<b>Cytogenetics:</b>	16q22.1

**Protein Families:** Druggable Genome, Transcription Factors

**Gene Summary:** Heat-shock transcription factors (HSFs) activate heat-shock response genes under conditions of heat or other stresses. HSF4 lacks the carboxyl-terminal hydrophobic repeat which is shared among all vertebrate HSFs and has been suggested to be involved in the negative regulation of DNA binding activity. Two alternatively spliced transcripts encoding distinct isoforms and possessing different transcriptional activity have been described. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) uses two alternate in-frame splice sites in the 3' coding region, compared to variant 1, resulting in a longer protein (isoform b). This variant, alternatively referred to as HSF4b, functions as a transcriptional activator of the constitutive expression of heat shock genes. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.