

## Product datasheet for **RC224428**

### Hsp60 (HSPD1) (NM\_002156) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hsp60 (HSPD1) (NM_002156) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hsp60
Synonyms:	CPN60; GROEL; HLD4; HSP-60; HSP60; HSP65; HuCHA60; SPG13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC224428 representing NM\_002156  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCTTCGGTTACCCACAGTCTTTCGCCAGATGAGACCGGTGCCAGGTTACTGGCTCCTCATCTCACTC  
 GGGCTTATGCCAAAGATGTAAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAAGGTGTAGACCTTTT  
 AGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGAGTTGGGGAAGT  
 CCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAAGATAAATACAAAACATTG  
 GAGCTAAACTTGTCAAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTAC  
 TGTACTGGCAGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAAATC  
 AGGAGAGGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACCTAAAAGCAGTCTAAACCTGTGACCA  
 CCCCTGAAGAAAATGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAAATGGCAATATCATCTC  
 TGATGCAATGAAAAAGTTGGAAGAAAAGGTTGTCATCACAGTAAAGGATGAAAAACACTGAATGATGAA  
 TTAGAAAATTATTGAAGGCATGAAGTTTGTATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAG  
 GTCAGAAATGTGAATCCAGGATGCCTATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCAT  
 TGTACCTGCTCTTGAAATTGCCAATGCTCACCGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGA  
 GAAGCTCTAAGTACACTCGTCTTGAATAGGCTAAAGGTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAG  
 GGTTTGGTGACAATAGAAAAGAACAGCTTAAAGATATGGCTATTGCTACTGGTGGTGCAGTGTGGGAGA  
 AGAGGGATTGACCCTGAATCTTGAAGACGTTGAGCCTCATGACTTAGGAAAAGTTGGAGAGGTCAATTGTG  
 ACCAAAGACGATGCCATGCTCTTAAAAGAAAAGGTTGACAAGGCTCAAATGAAAAACGCTATTCAAGAAA  
 TCATTGAGCAGTTAGATGTCACAACAGTGAATATGAAAAGGAAAAACTGAATGAACGGCTTGCAAAAT  
 TTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTGATGTTGAAGTGAATGAAAAGAAAAGACAGA  
 GTTACAGATGCCCTTAATGCTACAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGAGGGGGTTGTGCC  
 TCCTTCGATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTTGGTATAGAAAT  
 TATTAAGAAGAACTCAAAATCCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATA  
 GTTGAGAAAATTATGCAAAGTTCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGG  
 TGGAAAAGGAATCATTGACCAACAAAGGTTGTGAGAACTGCTTTATTGGATGCTGCTGGTGTGGCCTC  
 TCTGTTAACTACAGCAGAAGTTGTAGTCACAGAAATTCCTAAAGAAGAGAAGGACCCTGGAATGGGTGCA  
 ATGGGTGGAATGGGAGGTGGTATGGGAGGTGCCATGTTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC224428 representing NM\_002156  
 Red=Cloning site Green=Tags(s)

MLRLPTVFRQMRPVSRVLAAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIEQSWGS  
 PKVTKDGVTVAKSIDLKDKYKNIKAKLVQDVANNTNEEAGDGTTTATVLRARIAKEGFEKISKGANPVEI  
 RRGVMLAVDAVIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKVKRKGVITVKDGKTLNDE  
 LEIEGKMFDRGYISPYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANHRKPLVIIAEDVDG  
 EALSTLVNRLKVGLQVVAVKAPGFGDNRKNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGVEIV  
 TKDDAMLLKGGDKAQIEKRIQEIIEQLDVTTSEYEKEKLNERLAKLSDGVAVLVKGGTSDVEVNEKKDR  
 VTDALNATRAAVEEGIVLGGCALLRCIPALDSLTPANEDQKIGIEIIKRTLKIPAMTIKNAAGVEGSLI  
 VEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKVVRTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGA  
 MGGMGGMGGMGMF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6036\\_g03.zip](https://cdn.origene.com/chromatograms/mk6036_g03.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_002156

**ORF Size:** 1719 bp

**OTI Disclaimer:** 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\\_002156.5](#)

**RefSeq Size:** 2339 bp

**RefSeq ORF:** 1722 bp

**Locus ID:** 3329

**UniProt ID:** [P10809](#)

**Cytogenetics:** 2q33.1

**Domains:** cpn60\_TCP1

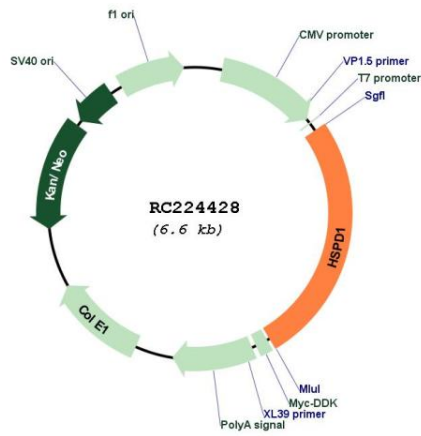
**Protein Families:** Druggable Genome, Stem cell - Pluripotency

**Protein Pathways:** RNA degradation, Type I diabetes mellitus

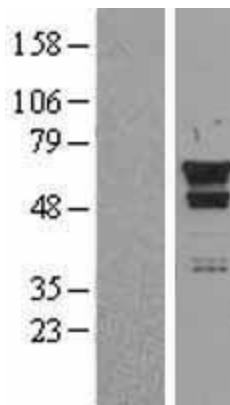
**MW:** 60.9 kDa

**Gene Summary:** This gene encodes a member of the chaperonin family. The encoded mitochondrial protein may function as a signaling molecule in the innate immune system. This protein is essential for the folding and assembly of newly imported proteins in the mitochondria. This gene is adjacent to a related family member and the region between the 2 genes functions as a bidirectional promoter. Several pseudogenes have been associated with this gene. Two transcript variants encoding the same protein have been identified for this gene. Mutations associated with this gene cause autosomal recessive spastic paraplegia 13. [provided by RefSeq, Jun 2010]

**Product images:**



Circular map for RC224428



Western blot validation of overexpression lysate (Cat# [LY400783]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224428 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).