

## Product datasheet for **RR214471**

### Ciapin1 (NM\_001007689) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ciapin1 (NM_001007689) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ciapin1
Synonyms:	MGC94686
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RR214471 representing NM_001007689 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGAGTTTGGGATCTCCCCTGGCCAGCTTGTGGCAGTGTTCTGTGACAAGTCATCTTCTGAAGAGG  
CCCTTAAAAAAGTGGTGGGTAGAGTTCAAGGATTAAGTGGCAGCGAGGGCCAAGTATTCGTGAAAAACAT  
CACCCAGCTGTTGCAGTCTGCCATAAGGAATCCAGCTTCGATGTCATTCTGTCCGGTATAGTCCCAGGA  
AGCACCTCTCTGCACAGTCTGAGGCTCTGGCTGACATGGCCCGGATCCTCCGGCCAGGGGGGTGTCTTT  
TTCTGAAAGAACCAGTGGAGACAACTGGAGTTAACAATGACAAAAATAAGACAGCCTCTAAGCTGTGTTT  
AGCCCTGACTCTTTCTGGCCTTGTGAAAATAAAGAGTTGCAGCGGGAGGCCCTAAGCCCTGAGGAGGCC  
CAGTCCATGCAGGAGCACCTGGGCTACACAGTGACAGCCTGCTCTCAGTCCACGTCACAGGCAAGAAGC  
CAAACCTTTGAAGTGGGTTCTTCTAGCCAGCTAAAGCTTCTCCACAAGAAGTCGTCTTCAGTGAAGCCTGT  
TGTGGATCCTGCTACTGCCAAGCTCTGGACCCTCTCAGCCAATGACATGGAGGATGACAGCATGGATCTC  
ATTGACTCAGATGAGCTGCTAGATCCAGAAGATTTGAAGAAGCCTGATCCAGCCTCTCTGAAGGCGCCTT  
CATGTGGGAAGGAAAAAGAGGAAGGCCTGTAAGAATGCACCTGTGGCCTGGCAGAGGAACTGGAGAA  
AGAGCAGTCCAAGGCGCAGAGCTCTCAGCCCAAGTCAGCCTGTGGAATTGCTACCTGGGAGATGCTTTC  
CGATGTGCCAACTGCCCTACCTGGGATGCCAGCCTTCAAGCCTGGAGAGCAGGTCCTCCTGAGCAGTA  
GCAACCTCCAGGATGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR214471 representing NM\_001007689  
Red=Cloning site Green=Tags(s)

MAEFGISPGQLVAVFCDKSSSEEALKKL VGRVQGLTGSEGVFVENITQLLQSAHKESFDVILSGIVPG  
 STSLHSPEALADMARILRPGGCLFLKEPVETTGVNNDKIKTASKLCSAL TSLGLVEIKELQREALSPEEA  
 QSMQEHLYGHSLSLVHVTGKKPNFEVGSSSQLKLLHKKSSSVKPVVDPATAKLWTL SANDMEDDSMDL  
 IDSDELLDPEDLKKPDPASLKAPSCGEGKKRACKNCTCGLAELEEKEQSKAQSSQPKSACGNCYLGDFA  
 RCANCPYLGMFAFKPGEQVLLSSNLQDA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001007689

**ORF Size:** 927 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\\_001007689.1](#), [NP\\_001007690.1](#)

**RefSeq Size:** 1806 bp

**RefSeq ORF:** 930 bp

**Locus ID:** 307649

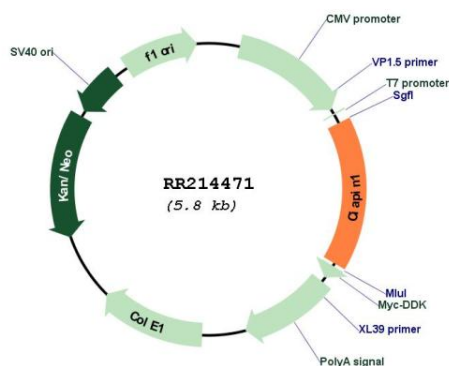
**UniProt ID:** [Q5XID1](#)

**Cytogenetics:** 19p13

**MW:** 33 kDa

**Gene Summary:** Component of the cytosolic iron-sulfur (Fe-S) protein assembly (CIA) machinery required for the maturation of extramitochondrial Fe-S proteins. Part of an electron transfer chain functioning in an early step of cytosolic Fe-S biogenesis, facilitating the de novo assembly of a [4Fe-4S] cluster on the scaffold complex NUBP1-NUBP2. Electrons are transferred to CIAPIN1 from NADPH via the FAD- and FMN-containing protein NDOR1. NDOR1-CIAPIN1 are also required for the assembly of the diferric tyrosyl radical cofactor of ribonucleotide reductase (RNR), probably by providing electrons for reduction during radical cofactor maturation in the catalytic small subunit. Has anti-apoptotic effects in the cell. Involved in negative control of cell death upon cytokine withdrawal. Promotes development of hematopoietic cells. [UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RR214471