

## Product datasheet for **RC204982**

### Cyclin H (CCNH) (NM\_001239) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cyclin H (CCNH) (NM_001239) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cyclin H
Synonyms:	CAK; Cych; p34; p37
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204982 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTACCACAACAGTAGTCAGAAGCGGCACTGGACCTTCTCCAGCGAGGAGCAGCTGGCAAGACTGCGGG  
 CTGACGCCAACCGCAAATTCAGATGCAAAGCCGTGGCCAAACGGAAGTTCTTCCGAATGATCCAGTCTT  
 TCTTGAGCCTCATGAAGAAATGACACTCTGCAAATACTATGAGAAAAGGTTATTGGAATTCGTTCGGTG  
 TTTAAGCCAGCAATGCCAAGATCTGTTGTGGGTACGGCTTGTATGATTTCAAACGTTTTATCTTAATA  
 ACTCAGTAATGGAATATACCCAGGATAATAATGCTCACTTGTGCATTTTGGCCTGCAAAGTAGATGA  
 ATTCAATGTATCTAGTCCTCAGTTTGTGGAAACCTCCGGGAGAGTCCTCTGGACAGGAGAAGGCACTT  
 GAACAGATACTGGAATATGAACTACTTCTTATACAGCAACTTAATTTCCACCTTATTGTCCACAATCCTT  
 ACAGACCATTTGAGGGCTTCCTCATCGACTTAAAGACCCGCTATCCCATATTGGAGAATCCAGAGATTTT  
 GAGGAAAACAGCTGATGACTTTCTTAATAGAATTGCATTGACGGATGCTTACCTTTTATACACGCCTTCC  
 CAAATTGCCCTGACTGCCATTTTATCTAGTGCCTCCAGGGCTGGAATTACTATGGAAGTTATTTATCAG  
 AGAGTCTGATGCTGAAAGAGAACAGAATTGCCTGTCACAGTTACTAGATATAATGAAAAGCATGAGAAA  
 CTTAGTAAAGAAGTATGAACACCCAGATCTGAAGAAGTTGCTGTTCTGAAACAGAAGTTGGAGCGATGT  
 CATTCTGCTGAGCTTGCCTTAACGTAATCACGAAGAAGAGGAAAGGCTATGAAGATGATGATTACGTCT  
 CAAAGAAATCAAACATGAGGAGGAAGAGTGGACTGATGACGACCTGGTAGAATCTCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA


[View online »](#)

**Protein Sequence:** >RC204982 protein sequence  
 Red=Cloning site Green=Tags(s)

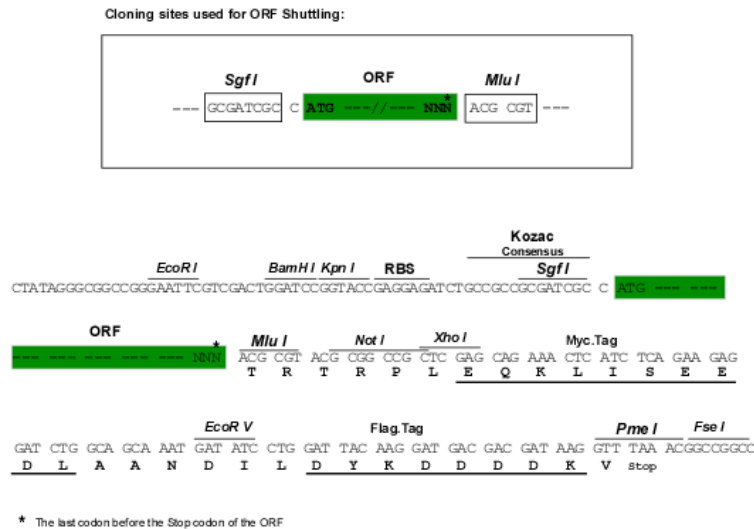
MYHNSSQKRHWTFSSSEQLARLRADANRKFRCXAVANGKVLNDPVFLEPHEMTLCKYYEKRLLEFCVS  
 FKPAMPRSVVGTACMYFKRFLNNSVMEYHPRIIMLTCAFLACKVDEFNVSSPQFVGNLRESPLGQEKAL  
 EQILEYELLLIQLNFHLIVHNPYRPFEGFLIDLKTRYPILNPEILRKTDADFLNRIALTDAYLLYTPS  
 QIALTAILSSASRAGITMESYLSLMLKENRTCLSQLDIMKSMRNLVKKYEPPEEVAVLKQKLERC  
 HSAELALNVITKKRKGIEDDDYVSKKSKHEEEWTDDDLVESL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6061\\_g01.zip](https://cdn.origene.com/chromatograms/mk6061_g01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001239

**ORF Size:** 969 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\\_001239.4](#)

**RefSeq Size:** 1403 bp

**RefSeq ORF:** 972 bp

**Locus ID:** 902

**UniProt ID:** [P51946](#)

**Cytogenetics:** 5q14.3

**Domains:** CYCLIN, cyclin

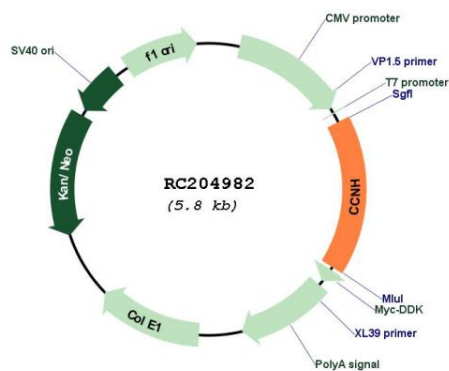
**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Cell cycle, Nucleotide excision repair

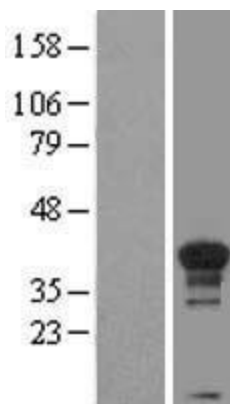
**MW:** 37.6 kDa

**Gene Summary:** The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with CDK7 kinase and ring finger protein MAT1. The kinase complex is able to phosphorylate CDK2 and CDC2 kinases, thus functions as a CDK-activating kinase (CAK). This cyclin and its kinase partner are components of TFIIH, as well as RNA polymerase II protein complexes. They participate in two different transcriptional regulation processes, suggesting an important link between basal transcription control and the cell cycle machinery. A pseudogene of this gene is found on chromosome 4. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Nov 2010]

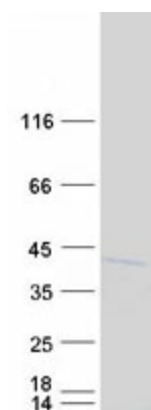
## Product images:



Circular map for RC204982



Western blot validation of overexpression lysate (Cat# [LY420054]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204982 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CCNH protein (Cat# [TP304982]). The protein was produced from HEK293T cells transfected with CCNH cDNA clone (Cat# RC204982) using MegaTran 2.0 (Cat# [TT210002]).