

Product datasheet for **RG204982**

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:	TurboGFP
Symbol:	Cyclin H
Synonyms:	CAK; Cych; p34; p37
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204982 representing NM_001239 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTACCACAACAGTAGTCAGAAGCGGCACTGGACCTTCTCCAGCGAGGAGCAGCTGGCAAGACTGCGGG
CTGACGCCAACCGCAAATTCAGATGCAAAGCCGTGGCCAACGGGAAGTTCTTCCGAATGATCCAGTCTT
TCTTGAGCCTCATGAAGAAATGACTCTGCAAATACTATGAGAAAAGGTTATTGGAATTCTGTTCCGGT
TTAAGCCAGCAATGCCAAGATCTGTTGTGGGTACGGCTTGATGTATTTCAAACGTTTTTATCTTAATA
ACTCAGTAATGGAATATCACCCAGGATAATAATGCTCACTTGTGCATTTTTGGCCTGCAAAGTAGATGA
ATTCAATGTATCTAGTCCTCAGTTTGTGGAAACCTCCGGGAGAGTCCTCTTGGACAGGAGAAGGCACTT
GAACAGATACTGGAATATGAACTACTTCTTATACAGCACTTAATTTCCACCTTATTGTCCACAATCCTT
ACAGACCATTTGAGGGCTTCTCATCGACTTAAAGACCCGCTATCCCATATTGGAGAATCCAGAGATTTT
GAGGAAAACAGCTGATGACTTTCTTAATAGAATTGCATTGACGGATGCTTACCTTTTATACAGCCTTCC
CAAATTGCCCTGACTGCCATTTTATCTAGTGCCTCCAGGGCTGGAATTACTATGAAAAGTTATTTATCAG
AGAGTCTGATGCTGAAAGAGAACAAGAACTTGCCTGTACAGTTACTAGATATAATGAAAAGCATGAGAAA
CTTAGTAAAGAAGTATGAACCACCCAGATCTGAAGAAGTTGCTGTTCTGAAACAGAAGTTGGAGCGATGT
CATTCTGCTGAGCTTGCCTTAACGTAATCACGAAGAAGGAAAGGCTATGAAGATGATGATTACGTCT
CAAAGAAATCAAACATGAGGAGGAAGAGTGGACTGATGACGACCTGGTGAATCTCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG204982 representing NM_001239
 Red=Cloning site Green=Tags(s)

MYHNSSQKRHWTFSSSEQLARLRADANRKFRCCKAVANGKVL PNDPVFLEPHEMTLCKYYEKRLLEFCSV
 FKPAMPRSVVGTACMYFKRFYLNNSVMEYHPRIIMLTCAFLACKVDEFNVSSPQFVGNLRESPLGQEKAL
 EQILEYELLLIQQLNFHLIVHNPYRPFEGFLIDLKTRYPILNPEILRKTDADFLNRIALTDAYLLYTPS
 QIALTAILSSASRAGITMESYLSLMLKENRTCLSQLLDIMKSMRNLVKKYEP RSEEVAVLKQKLERC
 HSAELALNVITKKRKGYEDDDYVSKKSKHEEEWTDDDLVESL

TRTRPLE - GFP Tag - V

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_001239.2](#), [NP_001230.1](#)

RefSeq Size: 1398 bp

RefSeq ORF: 972 bp

Locus ID: 902

UniProt ID: [P51946](#)

Cytogenetics: 5q14.3

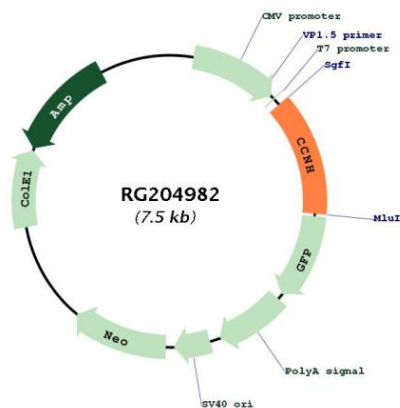
Domains: CYCLIN, cyclin

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Cell cycle, Nucleotide excision repair

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 RG204982