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Nucleotide sequence of the *Saccharomyces cerevisiae CLN1* and *CLN2* genes

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Submitted April 16, 1990

GenBank accession nos M33264, M33265

The *Saccharomyces cerevisiae CLN1* and *CLN2* genes were isolated as high-dosage suppressors of a temperature-sensitive mutation of the *CDC28* gene, which encodes a protein kinase required for cell division. The *CLN1* and *CLN2* genes encode proteins that share significant homology to cyclins and are involved in the control of the G1-S transition of the cell cycle (1, 2). Shown below is the nucleotide sequence of genomic DNA fragments which contain the open reading frame of the *CLN1* (334–1971) and *CLN2* (346–1980) genes.

ACKNOWLEDGEMENTS

We thank Kristen Hadwiger for proofreading sequence data. This work was funded by Public Health Service Grant GM38328 to S.I.R. from the National Institute of General Medical Sciences. S.I.R. also acknowledges support from American Cancer Society Faculty Research Award FRA-248.

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CLN1 gene (KpnI - HindIII fragment)
GGTACCGTGCGAGTGCAGCAATTAATCTCTCGATATTTTCTTAGTATCTCTTTTTATATAAGATATATTTTGGAATTGGTAATGCTTATCTTCAATAGTTTCTTAGTTGAATGCAC
ACTTAAGAGCAAATTGGCCAAGGAGTTCTTCGTTCGCTTTAATTTATTTCCTGGTTATTGTCAATTTATTCATCCCATCTCCCCAGGATAGAAGAAATTAGTGTAATTTTGCTGAC
AATACATTTTAACGACGATAACAATAATAGCAATTAAATAAAATAGCACTACCACCACTCCACTGCTCGTTAGCTATTTCTGTAAAATAAATAAAAAGATCATGAACCACTCAGAA
GTGAAAACTGGGTTAATTGTACATGCAAAGCAGACATATTACCCAATTGAATTGTCCAATGCAGAACTACTAACTCATTACGAAACCATACAGGAATATCACGAGGAAATCTCTCA
AAATGTGCTGGTCCAATCTTCCAAGACAAAACCAGACATAAAATTGATCGATCAGCAACCGGAGATGAATCCTCATCAAACTAGAGAAGCCATAGTAACATTTTTGTATCAACTTT
CAGTGATGACTAGAGTAAGTAATGGTATCTTCTTCCACTCTGTCAGGTTCTACGATCGCTATTGCTCTAAGAGAGTAGTGTTAAAGGACCAAGCTAAACTAGTTGTAGGCACCTGC
CTTTGGTTAGCGGCCAAAACTTGGGGAGGGTGCAACCATATTATAAACAACGTCTCCATCCCCACAGGTGGTAGGTTTTATGGTCCCAATCCTAGAGCTCGTATTCCACGCCTTTC
TGAATTGGTTCATTATTGCGGCGGGTCCGATTTATTCGATGAATCAATGTTCATTCAAATGGAAAGACATATCTTGGATACTCTGAACTGGGACGTTTATGAGCCCATGATTAATG
ACTACATTTTAAACGTTGACGAAAATTGTTTGATACAATATGAACTTTACAAAAACCAGTTACAAAATAACAATAGCAACGGCAAAGAATGGTCCTGTAAGAGAAAGTCACAATCT
TCTGACGACAGTGATGCCACAGTGGAAGAACATATCAGTAGGTCACCGCAAAGTAGTGGACTAGATGGCGATACAACTACCATGGATGAAGATGAAGAACTAAATTCCAAAATTAA
ATTGATAAATTTGAAAAGATTCTTAATTGATCTGAGCTGTTGGCAATACAACTTGCTTAAATTCGAATTATACGAAATATGCAATGGTATGTTTTCTATAATAAACAAATTCACTA
ATCAAGATCAAGGCCCTTTTCTCTCTATGCCCATTGGTAATGATATAAACTCAAACACTCAAACGCAGGTATTCAGCATTATCATCAATGGCATAGTCAATTCTCCCCCATCTTTA
GTCGAAGTTTATAAGGAGCAATATGGTATAGTACCTTTCATATTACAAGTAAAAGATTATAACTTGGAATTACAAAAGAAACTGCAACTGGCCTCTACAATAGACCTAACCAGAAA
AATTGCTGTCAATTCTCGTTACTTTGACCAAAATGCCTCTTCATCATCAGTTTCTTCTCCAAGCACATATTCTTCGGGAACCAATTATACTCCAATGCGAAACTTCAGTGCACAAT
CAGACAACAGTGTTTTCAGTACTACCAACATTGACCATTCATCGCCGATCACCCCTCACATGTACACTTTTAATCAGTTTAAAAACGAAAGTGCTTGTGACAGTGCCATAAGCGTA
AGCAGTCTACCTAATCAAACCCAAAATGGTAACATGCCATTATCAAGCAATTATCAGAATATGATGCTAGAAGAAAGGAATAAAGAGAATAGAATTCCCAACTCATCATCCGCTGA
AATACCACAACGTGCCAAATTTATGACGTCTGGTATATTCCAGAACACAGGAGAACTTACTAATAGAGCGTCTTCGATATCGCTATCGTTAAGGAACCACAATAGCTCTCAACTGT
GACCATTTTCTCATCAAGCCTACATATATACTTAATTAATAACGGAATACTACGCTTTTCCATCGTAAGTAATAATGACATTCATACTTGACATTTTAATACCAGATAATTTTAAT
GCCCACCTACAAACATCTAGCCTCAATATTCTTCAACTGAAACCAGCTGAATAGTAATATACCAATATTCTTTCAACGATTGATATAATTATCATCATGAACGGAAAAGATGACGC
GATTTTCCAGTATTTTTTTCTTCCTTTCGTTCTAACGTTTGCGGTAAGCAAAGGAGAGTAGTAATTACGAAACAGTTATAAATAGAAAGCCTCTCTAAGATTATAGATATAGATAT
ATAGTCATACTAAAGCTT (2338)
CLN2 gene (StuI - ClaI fragment)
GGCCTGCGCAAACGCAGAACGCAGATCCGCCTTCTATTTGCGTATCGCACGCAGCCTCTGGCTACTTGTTTAACTTACTATCTCTTTCATATATAAAAAATAGCAATCGACTCTGG
TAACTATTATGCTCCTCTTACTGGTTTTTAAGTGAATTGGCAATAGATAATATCAAGGACAACTTACTTTTATTTTAACATCTACTTTACTTCATCGTCAAATTTTCTTCTTATAT
ACAGCATTGCTAGACTCTATAGCTGCCAATTCATTCGCTTACCACATCATAATTTGCATACAAAAGAAAATCTTTTCTTTTTTCCATTCATTCATTAAATTTAACGACAGACAATG
GCTAGTGCTGAACCAAGACCCCGTATGGGACTCGTCATCAATGCTAAACCGGACTACTATCCGATTGAGCTATCTAATGCAGAATTACTTTCTCACTTCGAAATGCTGCAAGAATA
CCACCAAGAAATCTCCACCAATGTTATTGCTCAATCATGTAAGTTCAAACCTAATCCAAAACTAATAGACCAGCAGCCTGAAATGAACCCCGTGGAAACAAGGTCCAACATTATCA
CTTTTTTGTTCGAGCTGTCTGTGGTCACTCGAGTGACAAATGGTATTTTTTTTCATTCAGTTAGATTATATGACCGCTATTGTTCCAAGAGAATCGTGTTACGGGACCAAGCCAAA
TTGGTTGTCGCTACTTGTCTCTGGTTGGCTGCTAAAACTTGGGGCGGTTGTAATCACATCATCAATAATGTAGTCATCCCTACTGGCGGAAGATTTTATGGTCCCAACCCAAGGGC
ACGTATACCTCGACTCTCTGAACTAGTTCATTACTGTGGTGATGGTCAGGTCTTTGATGAATCAATGTTTTTACAAATGGAAAGACATATACTAGACACTTTAAATTGGAACATTT
ATGAACCAATGATCAATGATTACGTTTTAAATGTTGATGAAAATTGTTTGATGCAATACGAACTTTATGAAAATCAAGTTACTTATGACAAACAATGCTCTGAAAAACGTCAGTCT
CAATTATCCCAGGATAGTGATGCCACTGTAGACGAGAGGCCCTACCAAAACGAAGAAGAAGAAGAAGAAGACTTAAAACTAAAGATCAAGTTGATTAATTTGAAAAAATTCTTGAT
TGATGTATCCGCGTGGCAGTACGACTTACTTAGATATGAACTTTTCGAAGTATCGCACGGCATATTCTCCATTATCAATCAATTCACCAATCAAGACCACGGTCCTTTTTTAATGA
CTCCAATGACATCAGAAAGCAAAAATGGTGAAATTTTGAGTACCTTAATGAACGGCATTGTTTCCATTCCTAACTCCTTGATGGAAGTGTATAAAACGGTCAATGGTGTTCTACCC
TTCATTAATCAAGTGAAAGAATATCACTTGGATCTACAAAGAAAACTGCAAATTGCATCCAACTTGAACATTTCGAGAAAGCTTACCATATCAACCCCATCATGCTCTTTCGAAAA
TTCAAATAGCACATCCATTCCTTCGCCCGCTTCCTCATCTCAAAGCCACACTCCAATGAGAAACATGAGCTCACTCTCTGATAACAGCGTTTTCAGCCGGAATATGGAACAATCAT
CACCAATCACTCCAAGTATGTACCAATTTGGTCAGCAGCAGTCAAACAGTATATGTGGTAGCACCGTTAGTGTGAATAGTCTGGTGAATACAAATAACAAACAAAGGATCTACGAA
CAAATCACGGGTCCTAACAGCAATAACGCAACCAATGATTATATTGATTTGCTAAACCTAAATGAGTCTAACAAGGAAAACCAAAATCCCGCAACGGCGCATTACCTCAATGGGGG
CCCACCCAAGACAAGCTTCATTAACCATGGAATGTTCCCCTCGCCAACTGGGACCATAAATAGCGGTAAATCTAGCAGTGCCTCATCTTTAATTTCTTTTGGTATGGGCAATACCC
AAGTAATATAGTTCCTGTTCTTTTCATGATAAATGAATGCCAATTTGCCAAACGTACCAAAAAGAGACCAATATTATAAGATTTATAAAAGAAAAGCTTTCATATTCTGCGGGAAA
AGAGAGACCACATACTCAGTTTATCGCTATAATTTTAACGGTATATATTTATATTTTTGTAAATCAATGAAACAGCCAACTAAATTCTGTGTAGAGTTAAAAAAAGGACATTAAAA
GTATTTTTCTTTGCTGATGGCACTCAAGTCTAATCTTATTAAAAAAATCGAT (2256)
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