Corrigendum

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Isolation and sequence analysis of CDC43, a gene involved in the control of cell polarity in Saccharomyces cerevisiae

(Recombinant DNA; yeast; cell-division cycle; bud emergence; helix-turn-helix; DNA-binding proteins)

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We have discovered errors in our published sequence of the Saccharomyces cerevisiae CDC43 gene (Johnson et al., 1990). The correct nucleotide (nt) and amino acid (aa) sequences are shown in Fig. 1 below. The CDC43 gene is identical in nt and aa sequence to the S. cerevisiae CAL1 gene (Ohya et al., 1991), which is very similar in deduced aa sequence to the S. cerevisiae DPR1 gene product (Goodman et al., 1988), a protein involved in the C-terminal modification of RAS proteins in S. cerevisiae. The synthetic lethality of a cdc42 cdc43 double mutant (Adams et al., 1990) can now be rationalized if the CDC43 gene product is involved in the post-translational modification of the CDC42 gene product. Interestingly, the terminal morphologies of a CDC43 temperature-sensitive mutant (Adams et al., 1990) and a Ca2+ -dependent CAL1 mutant (Ohya et al., 1984) grown under restrictive conditions are not identical; a CDC43 mutant arrests as large, unbudded cells and a CAL1 mutant arrests as cells with small buds. Clarification of this discrepancy must await molecular analysis of the nature of the conditional mutations.

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REFERENCES


Fig. 1. Nucleotide sequence of the CDC43 gene and predicted aa sequence of the CDC43 product. The CDC43 gene is predicted to encode a polypeptide of 376 aa, which is 163 aa longer than our published version (Johnson et al., 1990). The nt sequence is numbered relative to the A of the putative start codon. The GenBank accession number is M31114. The corrected nt sequence was generated by removing a 'C' at nt 637 and a 'T' at nt 691, and by adding an 'A' at nt 724 and 191 additional nt at the end of the published sequence. The remainder of the published sequence is unchanged.