Extra dose of Dsn1p (Yir010wp) expressed from episomal plasmid in normal Saccharomyces cerevisiae diploid wild type has augmented growth rate and altered budding pattern, suggesting its growth stimulating property

ABSTRACT

DSN1 is a spindle pole body component that functions in the chromosomal segregation process of yeast. The effect of additional DSN1 gene dosage on the yeast cell has yet to be established. The work from this study indicated that an extra gene dosage of DSN1 caused abnormalities in both cellular growth and budding pattern. The yeast cells carrying an additional copy of DSN1 gene have an increased growth rate and they formed a highly retarded multiple bud complex. These phenomena suggest possible growth stimulating property of the gene product.

Keyword: Budding; DSN1; Gene dosage sensitivity; Growth stimulating