

STABILITY OF GAA/TTC AND CTG/CAG TRINUCLEOTIDE REPEATS DURING BREAK-INDUCED REPLICATION IN YEAST

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Several human neurodegenerative disorders are caused by the expansion of trinucleotide repeats within or near the region of genes. To study the stability of trinucleotide repeats in eukaryotic cells, we insert different number of GAA and CTG repeats in both orientations separately into the genome of *Saccharomyces cerevisiae*. In addition to S-phase replications, DNA can also be repaired by break-induced replication (BIR), an important process of DNA repair system that has been implicated in various chromosomal instabilities. In this study, we want to analyze the stability of trinucleotide repeats associated with BIR.