

Genomic Instability Promoted by Expression of Human Transposase-Derived Gene

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Abstract- *DNA Transposases are enzymes that recognize and catalyze the movement of mobile elements in the human genome known as transposons. There are abundant transposase-derived genes in the human genome that have been conserved through evolution. Some of them, such as PGBD5, maintain their enzymatic activity in human cells. The expression of PGBD5 has been related to mobilization of DNA transposons through a motif specific cut and paste mechanism across the genome. The excision and insertion mechanism of transposable elements can cause genomic rearrangements and have a potential mutagenic activity in specific disease cases such as cancer. In this study, we analyze how the expression of PGBD5 leads to genomic instability*