

## **Modelling the Behaviour of Single Stage Splicing Language: A Yusof Goode Computational Approach**

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### **ABSTRACT**

Yusof-Goode (Y-G) splicing system is a formal characterization of the generative capacity of specified enzymatic activities acting on DNA molecules with new extension symbolization of representing rule. The output of Y-G splicing system can be categorized into three types of single stage splicing language namely active persistent, transient and inert persistent language. It is both money and time consuming to conduct laboratory experiments to determine the behaviour of splicing language. Hence, research has been conducted to predict the characteristic of single stage splicing language based on limit adjacency matrix computational modelling in order to optimize time and money. The utilization of software programming has been developed through Visual Basic Software for scientists to determine the behaviour of single stage splicing language as well as the number types of resulted DNA molecules restricted to at most two strings and two rules with one cutting site. The output from the program was found to match the outcomes of wet lab experiments.

**KEYWORDS:** Yusof-Goode splicing system; splicing language; single stage limit language

**DOI:** [10.11113/jt.v73.3560](https://doi.org/10.11113/jt.v73.3560)