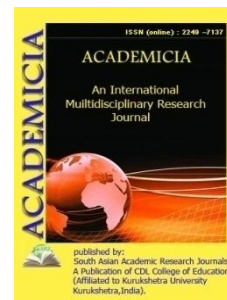


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A REVIEW ON GENE CLONING AND ITS APPLICATION

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ABSTRACT

A contemporary demand is for protein production in adequate quantity and quality. The use of cell cultures for protein synthesis seems to be becoming more common. Expression techniques based on mammalian cells can introduce proper protein folding, post-translational modifications, and product assembly for recombinant proteins, all of which are required for complete biological activity. This review article is completely based on a literature review. In this article, the mammalian gene sequence has attracted a lot of attention. The author focused on the expression of the gene in a variety of mammalian cell lines. Potential vector methods for transferring the gene into mammalian cells included plasmid-based expression vectors, retroviral vectors, adenovirus vectors, vaccinia vectors, and baculovirus vectors. The process of transmitting genes into mammalian cells was also investigated. The uses and limits of mammalian expression systems were also addressed. The purpose of this study and the publishing of this article is to improve the understanding of researchers who are just getting started in the area of mammalian cell gene expression. The primary goal of this article, as well as its conclusion, is to make molecular techniques, expression systems, including gene expression applications in human cell lines more accessible.

KEYWORDS: *Gene Cloning, Gene, Protein, Plasmid, Vector.*

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