Abstract

Today researchers have been attention to birds as pharmaceutical proteins producer bioreactors, since birds have a shorter generation interval and produce transgenic poultry is done faster and cheaper. But due to different reproductive system in birds, viral Vectors is a effective of tools to produce transgenic birds. Viral vector have more ability to reason joining host genes in the genome of host cells. Among viral Vector, lentiviral vectors, one of the most powerful and commonly used. In this study, GFP reporter gene was removed from the vector and cloned in lentiviral expression vectors and after producing of recombinant virus with target gene, cultured chick liver cells were infected with recombinant viruses . After 48 hours observed reporter gene expression in chick liver cells under the florescent microscope. Also in this study controlled GFP reporter gene expression using inducible lentiviral viral systems. This research could be preliminary step in transgenic birds produced with using viral vector. The continuation of this research and its repetition in basic cell and finally treated chickens blastoderm and chick embryos with recombinant viruses can be good results for the purpose of producing transgenic birds.

Kay words: Gene transfer, Transgenic, Viral vector, Lentivirus, Cell culture

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Recombinant Lentivirus Vector Mediated Gene Transfer of GFP into Chicken Liver Cells

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