

Abstract

In recent years, with advances in molecular biology and biotechnology, research on vaccine plant has become a very important issue. There have been many benefits for vaccine production in transgenic plants Such that it can be produced at low cost, ease of maintenance, lack of transmission and compatibility with the immune system mentioned above. Due to the widespread use of diagnostic and therapeutic monoclonal antibodies, production of permanent, safe and cost are important. . The range of these molecules, such as enzymes to the medication, toxin for the treatment of cancer, viruses for gene therapy, and targeted liposomes for drug delivery devices for the diagnosis with certainty is Byshttrvlyd. Due to the lack of information about the presence of a monoclonal antibody-producing genes in native camel Also in the area and the potential diagnostic and therapeutic applications of gene *CL9P4* In cancer, this study aimed to isolate and clone the gene *CL9P4* camels native to the *E.coli* In order to provide a suitable ground for new studies to produce vaccines were green. After sample preparation and DNA extraction from blood Camel was designed primers and gene amplification and direct sequencing were sent *CL9P4*. Alignment Skvnsyng with the results of other sequences in the NCBI made to ensure the accuracy of the amplified fragment. The gene was cloned into the *E.coli CL9P4* during Laygyshn and transformation. Plasmid extraction was carried out and *Bam* HI digestion with enzymes. The results showed that the cloned gene *CL9P4* in most endemic area and may exist in *E.coli*.

Keywords: Gene *CL9P4*, Camel, Escherichia coli, Cloning



University of Zabol
Graduate school
PA Campus
Department of Biology
The thesis submitted for the Degree of M. SC
(In the field of Genetic)

**Isolation and cloning part of *CL9P4* gene from local
camel and transfer its to *E.Coli* to produce green
vaccin**

Supervisor:
Dr. H. kamaladini

Advisors :

Dr.F.Hadadi

By:

SH.Sahraei

September 2014