

## **Abstract**

Advances in molecular biology techniques in the 1980s, a large role in the development of new strategies for the production of a vaccine has performed. Production of transgenic plants promising new vaccine production cheaper, safer, more comfortable with established power storage. for this reason, plants as an important alternative method for producing a wide range of valuable active proteins were expressed in the health industry. Camel is a unique phenotypic characteristics that exist in other mammals. The unique features of the cellular and molecular aspects can also be noteworthy. *NbBruc02,03* genes that camels are native to detect Brucella antigens of the two main species of Brucella (*B.abortus* and *B.melitensis*) and they are the kind that Yersinia detect. This study aimed to isolate and clone partial of *NbBruc02* gene local camel and alignment the other sequences available and transfer to *E.Coli* bacteria was performed to produce green vaccines. Single-humped camel blood samples from a further 5-year local control was prepared in the city of Zabol. DNA extraction was performed. to ensure the quality and quantity of extracted DNA using spectrophotometry and agarose gel was used. The amplified fragment of PCR temperature gradient method using specific primers were used and The junction temperature is obtained. then Gel extraction was performed and The product obtained was sent for sequencing company. Sequence received from the company compared with sequences in the NCBI and was confirmed by Praimer BLAST software. To clone the gene of interest from a T/A vector was used. then the plasmid was transferred into cells for *E.Coli*. The white colonies were subcultured. Plasmid extraction was performed. then the digestion of recombinant plasmids T/A was performed using the enzyme *Bam*HI. The results showed that there are *NbBruc02* gene in area local camel and clones it successfully in *E.Coli* bacteria

Key words: *NbBruc02* gene, camel, *E.Coli* bacteria



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**Isolation and cloning part of *NbBruc02* gene  
from local camel and transfer its to *E. Coli* to  
produce green vaccin**

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