عنوان مقاله:

Cloning and secretory expression of HA1 and HA2 gene of avian influenza H9N2 gene in Lactococcus lactis

محل انتشار:

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خلاصه مقاله:

H9N2, a type of influenza virus, is one of the major problems that poultry farms in Iran are facing nowadays. In this study, a part of HA1 and HA2 genes, coding for antigenic sites of virus, were amplified and cloned into suitable lactococcal expression system as preliminary step for construction and evaluation of a live vaccine. The target gene was amplified by RT-PCR and cloned into pNZ8110, lactococcal expression vectors, for expressing secretory heterologous protein, to yield and pNZ8110-HA/S. After preliminary transformation into E. coli MC1061, the plasmids were extracted and transformed to L. lactis NZ9000 by electroporation. During each steps, the location and accuracy of genes sequence were confirmed by colony PCR, restriction enzyme analysis and sequencing. SDS-PAGE and silver staining of purified His-tagged proteins from recombinant bacteria revealed that the HA was successfully expressed in secretory form.

کلمات کلیدی:

H9N2, HA1 genes, HA2 genes, L. lactis NZ9000, SDS-PAGE.