

عنوان مقاله:

Molecular characterization of the lipL₄₁ gene of *Leptospira interrogans* vaccinal serovars in Iran

محل انتشار:

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خلاصه مقاله:

Leptospirosis caused by infection with pathogenic leptospires, which is the most prevalent zoonotic disease in the world. The outer membrane proteins (OMPs) of pathogenic leptospires such as LipL₄₁ play a crucial role in pathogenesis of this disease. Therefore a major challenge to develop an effective vaccine against leptospirosis is application of basic research on the OMPs of leptospires to improve vaccine development. The aim of this study was cloning and analyzing of the lipL₄₁ gene from vaccinal serovars of leptospires in Iran, in order to identify genetic conservation of this gene. Three vaccinal serovars of *Leptospira* were used in this study. The lipL₄₁ gene of these serovars were amplified and cloned in the pTZ Δ YR/T vector. The recombinant clones were confirmed by colony-PCR and sequencing. The sequenced genes were analyzed for their homology between them and other submitted sequences in Genbank database using the BLAST and MegAlign program. PCR amplification of the lipL₄₁ gene resulted in the 1065 bp gene product in vaccinal serovars tested. In our study, nucleotide sequencing results showed high similarity (>94%) within the leptospiral vaccinal serovars. The genetic conservation of the lipL₄₁ gene among different serovars of *Leptospira* indicated the capacity of utilization of this gene for development of recombinant vaccine against leptospirosis.

کلمات کلیدی:

Leptospirosis, lipL₄₁ gene, Molecular Characterization, Sequencing, Vaccinal serovars of *Leptospira*

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