

## عنوان مقاله:

Construction of Eukaryotic Expression Vectors Encoding CFP-10 and ESAT-6 Genes and Their Potential in Lymphocyte Proliferation

## محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی، دوره 2، شماره 1 (سال: 1392)

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## خلاصه مقاله:

Background: Mycobacterium (M.) bovis is the agent of bovine tuberculosis (TB) in a range of animal species, including humans. Recent advances in immunology and the molecular biology of Mycobacterium have allowed identification of a large number of antigens with the potential for the development of a new TB vaccine. The ESAT-6 and CFP-10 proteins of M. bovis are important structural and functional proteins known to be important immunogens. Methods: In the current study, the DNAs encoding these genes were utilized in the construction of pcDNA 3.1+/ESAT-6 and pcDNA3.1+/CFP-10 plasmids. After intramuscular injection of BALB/c mice with these plasmids, ESAT-6 and CFP-10 mRNA expression was assessed by RT-PCR. Mice were inoculated and boosted with the plasmids to evaluate their effects on lymphocyte proliferation. Results: Our results indicate the plasmids are expressed at the RNA level and can induce lymphocyte proliferation. Conclusion: Further study is needed to characterize the effect of these antigens on the immune system and determine whether they are effective vaccine candidates against M. bovis.

## کلمات کلیدی:

BALB/c mice, CFP-10, DNA vaccine, ESAT-6, Mycobacterium bovis, PPD, Proliferation assay

## لینک ثابت مقاله در پایگاه سیویلیکا:

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