عنوان مقاله:

Cloning rhoptry protein ۱ (ROP۱) gene of Toxoplasma gondii (RH) in expression vector

محل انتشار:

مجله آرشیو رازی, دوره 63, شماره 2 (سال: 1387)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Toxoplasma gondii contain various immunogenic antigens. The most important Toxoplasma antigens are somatic and excreted/secreted antigens. Rhoptry proteins are known as excreted/secreted antigens. These antigens have been proposed as a vaccine candidate against toxoplasmosis. The main objective of the present work was cloning rhoptry protein۱ (ROP۱) Gene of Toxoplasma gondii (RH) in a cloning vector for gene analysis and further production of rhoptry proteins. Tachyzoites of the RH strain of T. gondii were harvested from the peritoneal fluid of mice that has been experimentally infected with the parasites. Genomic DNA was extracted by phenol- chloroform method. The ROP۱ fragment amplified with specific primers. The purified PCR products were ligated between the EcoR۱ and BamH۱ sites of the pTZ۵۷R/T cloning vector and transformed into Escherichia coli TG۱ strain and screened by IPTG and X-Gal. The plasmid was purified and visualized under UV transilluminator. The amplified fragment was cloned in pTZ۵۷R vector successfully. The correct orientation of the ROP۱ fragment was identified by restriction enzyme analysis and sequencing of constructed plasmid. A fragment about ۷۶۰bp was separated from PTZ۵۷R following digestion and demonstrated on agarose gel electrophoresis.The sequence of this amplified gene showed homology up to ۹۶% with target gene in GenBank database (Accession no. M۷۱۲۷۴). Recombinant plasmid of ROP۱ gene was constructed. It is ready for future study.

کلمات کلیدی:

Toxoplasma gondii, Cloning, Rhoptry Protein۱ (ROP۱) Gene

لینک ثابت مقاله در پایگاه سیویلیکا: