Abstract

This study reports the efficacy of a immuno-diagnostic antigen, the 26 KDa glutathione S-transferase?]26 KDa GST?^, obtained from a Chinese strain of Schistosoma japonicum . The cDNA of 26 KDa GST from the total RNA of adult worm was synthesized and amplified by using reverse transcriptase-polymerase chain reaction?]RT-PCR?^, followed by the subcloning and sequencing. The recombinant protein of 26 KDa GST were then expressed in Escherichia coli strain M15. The results showed that sera from the mice immunized with either the native GSTs or recombinant GST26 can recognize the recombinant GST26 and native GSTs. The level of anti 26 KDa GST IgG antibody in immunized mice was significant higher than in the adjuvant and normal controls. The protective immunity in mice immunized with purified native GSTs or recombinant GST26, then challenged with cercariae, both showed similar worm reduction rate. These results indicated that this antigen of potential diagnostic value can be purified in large quantities through suitable expression vector, suggesting that this protein may be a good candidate for early and accurate clinical diagnosis of schistosomiasis japonica.

Key Word：Schistosomiasis japonica、RT-PCR、Development of immuno-diagnostics