PCR PRIMERS FOR THE DETECTION OF SCHISTOSOMA JAPONICUM CERCARIAE

Tech ID: 17537 / UC Case 2005-102-0

ABSTRACT

Location and time-specific variability in Schistosoma japonicum cercarial density has been shown to be high in the mountainous regions of Sichuan Province, China. A polymerase chain reaction (PCR) assay for the detection of schistosome cercariae in these environments would aid in the determination of environmental risk, and the identification of individual-level risk factors. Here the authors present a highly sensitive and specific PCR assay for the detection of S. japonicum cercariae in laboratory samples. As few as 1 and as many as 300 cercariae, from both laboratory and field-collected S. japonicum strains, produced positive amplification results, and repeated assays showed no positive result for S. mansoni nor for non-japonicum cercariae isolated from infected snails collected in Sichuan Province. There was no difference found between the Chinese and Philippine S. japonicum strains. The results presented demonstrate the successful PCR amplification of a target sequence within the SjR2 retrotransposon from samples of S. japonicum cercariae, with the potential for application to natural water samples from endemic areas.

Development of a novel PCR assay capable of detecting a single Schistosoma japonicum cercaria recovered from Oncomelania hupensis. 2005. Parasitology.131:497-500

RELATED MATERIALS

» Development of a novel PCR assay capable of detecting a single Schistosoma japonicum cercaria recovered from Oncomelania hupensis.; Driscoll AJ, Kyle JL, Remais J.; *Parasitology. 2005 Oct;131(Pt 4):497-500*

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