Trypanosoma cruzi: Correlation Between Karyotype Variability and Isoenzyme Classification

Henriksson,

Pettersson,

Solari,

Forty-three Trypanosoma cruzi isolates from Chile and Colombia and three cloned stocks from Bolivia and Brazil were studied at the karyotype level by hybridization with four different parasite gene probes to chromosomes separated by pulsed-field gel electrophoresis. The results showed that classification of parasite isolates based on isoenzyme analysis at 12 or more genetic loci correlated with the classification obtained by molecular karyotype analysis. However, less correlation was found between molecular karyotypes and the zymodemes Z1, Z2Bra, Z2Bol, and Z3 based on analysis at only two genetic loci. All the four probes used in this study allowed differentiation between different T. cruzi stocks but the SAPA and the antigen 13 probes were most informative. Isolates which were unclassified at the isoenzyme level were also studied and in most cases similar hybridization patterns were observed as obtained with one or more isoenzyme-classified isolates. The results demonstrate the poten