
Nucleotide sequence of a *Trypanosoma cruzi* minicircle

Antonio González

 Department of Molecular Parasitology, The Rockefeller University, 1230 York Avenue, New York, NY 10021-6399, USA

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Total DNA of *Trypanosoma cruzi*, Y strain, was fractionated by agarose gel electrophoresis. Minicircle DNA was extracted, Bam HI-digested and ligated to dephosphorylated, Bam HI-linearized pUC8. Transformed bacterial colonies were screened with nick-translated minicircle DNA. Approximately fifty percent of the positive clones contained unstable recombinant plasmids as indicated by sizing in agarose gels. This suggests that the insert orientation determined construction stability. On the other hand, all the stable plasmids had inserts of identical size and restriction pattern. One of them, pMC3, was sequenced by the Maxam and Gilbert procedure upon unidirectional deletion subcloning. The following 1440 nucleotide sequence was obtained:

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GGATCCACTGGGAAAATCAGGAAGGTGTG<GTTTTGGGAGGGCGTTCAAATTTGGGCCGAAAAATCATGCATC
TCCCCCGTACATTATTTGGGATTTAGGGGGTGTGTTATGGGAGGTGGGGTTCGATTGGGGTTGGTGTAAATATA
>CTACTGAATAGAAGGTGTGCTTAATTTGAATGCTTGGATTGATAGATTATGCTACTCGTGTATTGACTTGT
TGTATTTCTTGAGTGGTTGATGTGCTAGAGATAATACAGTGTATAAATGTTTGTGAATATTCTGAAAGTATA
AATGTTTATTTCTTGGAGTGGTGTATAGTATTGGTTGTGAAAATTTTGATAAAAAGTGGTACCCTGAAATTCGGTA
AATTATA<GTTTTGGGAGGGCGTTCAAATTTGGGCCGAAAAATCATGCATCTCCCCCGTACATTATTTGGGA
TTTTAGGGGTTGTTCAATGGAGGTGGGGTTCGATTGGGGTTGGTGTAAATATA>AGTTAGGTATGGTGGTTAGG
ATTTTATATGGTGTATTAGGATCGTAGATTGTATATGTACATTGTGATAGTTATGATATCGTGTATAAATTTGTC
TATTCAGTATGTTGATAAAGCCGTATGTGTGTTTATAGTTGTATTTCATTCTGGTTATAAACGTTATTTATG
GTTATGGTATGCTGTGGTTGTTGTTGAAGCTATAGTTGGAGTTGAATGTTATTTGGGATTAGAAAATTCCTGAA
ATCTGT<GTTTTGGGAGGGCGTTCAAATTTGGGCCGAAAAATTCATGCATCTCCCCCGTACATTATTTGTGCCA
AAATCCCAATTTTCAGGGAGGTGGGGTTCGATTGGGGTTCGTTGTAATATA>GAGGGTTTTGAGGGTTAACGTAT
TATGAATGATTATGGTATTGTTATGTGAGTAGTTTATGATTGTATATTATAGTTTTATAGTGTAGTGATGATGAT
AGAAGTCTGACGTGAGATAGAGGATCAGTAATGCTGATGAGAAGTTTGTATGTTGTTGTTAGTAATAATATTAATA
AGATTGATAAACTTTATATTGGTGGTGAATAAGGGGTTGAGAATTTGGTTAAGTCGT<GTTTTGGGAGGGCGG
TTCAAATTTGGGGCCGAAATTCATGCATCTCCCCCGTACATTATTTCCGCCAAAATGCTAAATTTTCAGGGAGG
TGGGGTTCGATTGGGGTGGTGTAAATATA>AGGCTGGTGACTTATGTGGGTGTAAGTGGGGTGTGTTGTATAGA
TGGGGTAGGTGTGAATTTATAAATGTAGTTAGTAACAGTAATATTATGTGATTCAATATGATGGTGAGATAACA
AGTACATGAAGAGGAGAGTGAAGTGTATGTTGATTATTGTATATATTATTGAGTTATAAATTTATCTGATACTA
TATTGTCTGGTTAAACATGGTAT
  
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Four blocks of unique sequences alternate with four blocks of homologous sequences (bracketed). Underlined nucleotides are those perfectly repeated in the homologous blocks. The double underlined sequence corresponds to a 12-nucleotide motif found in all *Trypanosomatidae* minicircles (1).

(1) Ntambi J.M. et al. (1986) J. Biol. Chem. 261, 11890-11895.