Supplementary Material

Therapy with cardiomyocytes derived from pluripotent cells in chronic chagasic cardiomyopathy

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Figure S1. Characterization and differentiation of mESC. (A) Undifferentiated mESC line E14TG2A in culture. (B) Normal karyotype (40 chromosomes). (C) RT-PCR of the transcription factors Oct3/4, Sox2, and Nanog in mESC. Expression of SSEA-1 (D) and Oct3/4 (E) in mESC by immunofluorescence. The nuclei were labeled with Topro (F). Images overlay (G). (H) Embryoid bodies (EBs) formation 2 days after the differentiation. (I) Adhered EBs after 7 days of differentiation. Some cells exhibited spontaneous contraction (yellow circle). (J) Cardiac troponin T expression was analyzed by flow cytometry in differentiated cells. Histogram overlay differentiated cells stained with secondary antibody (blue) and cells positive for cardiac troponin T (red). mESC mouse embryonic stem cells. Scale bars: (A, D-G) 50 µm; (H, I) 200 µm.
Table S1. Primers sequences for mESC pluripotency gene expression.

| Gene product | Sequence             | Size (base pairs) |
|--------------|----------------------|-------------------|
| Oct3/4       | F - AGCCTGAGGGCGAAGCAGGA  
               | R - CCCAGGGTGAGCCCCACAT  | 236               |
| Nanog        | F - CAGCCCTGATTCTTCCACCAGTCCC  
               | R - TGGAAGGTTCCCAGTCGGGGTTCACC  | 391               |
| Sox2         | F - AGCTACAGCATGATGCAGGA  
               | R - GGTCATGGAGTTGTACTGCA  | 126               |
| β-actin      | F - CATCACATTGGCAACGAGCG  
               | R - ATGGATGCCACAGGATTCCA  | 85                |

F - forward; R - reverse.