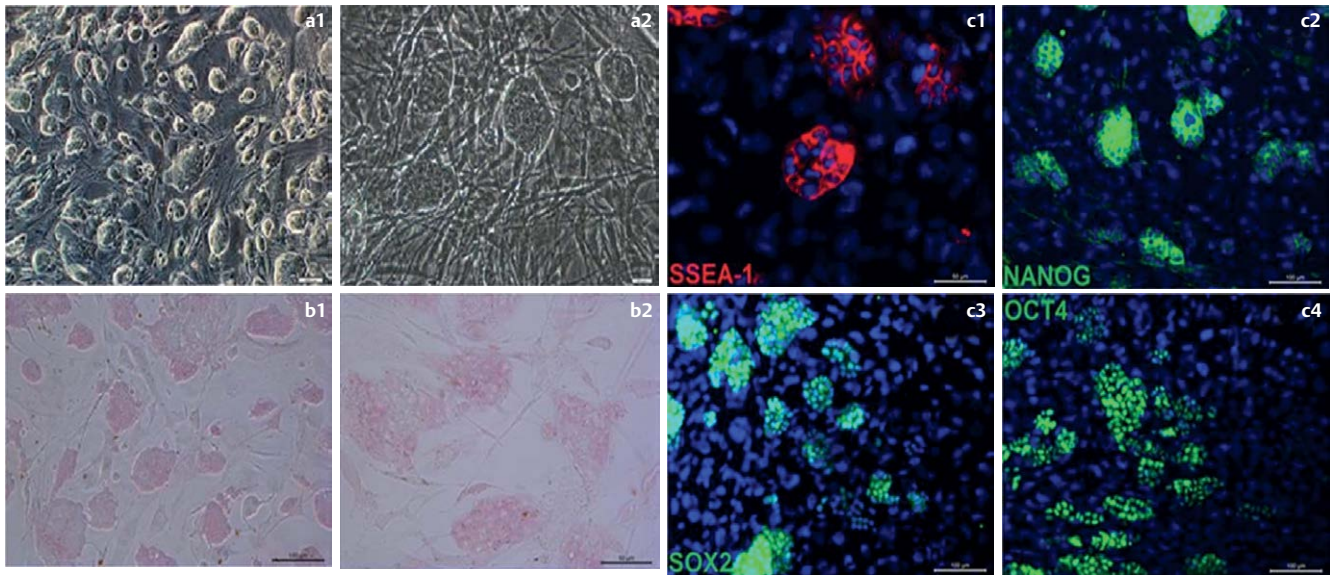
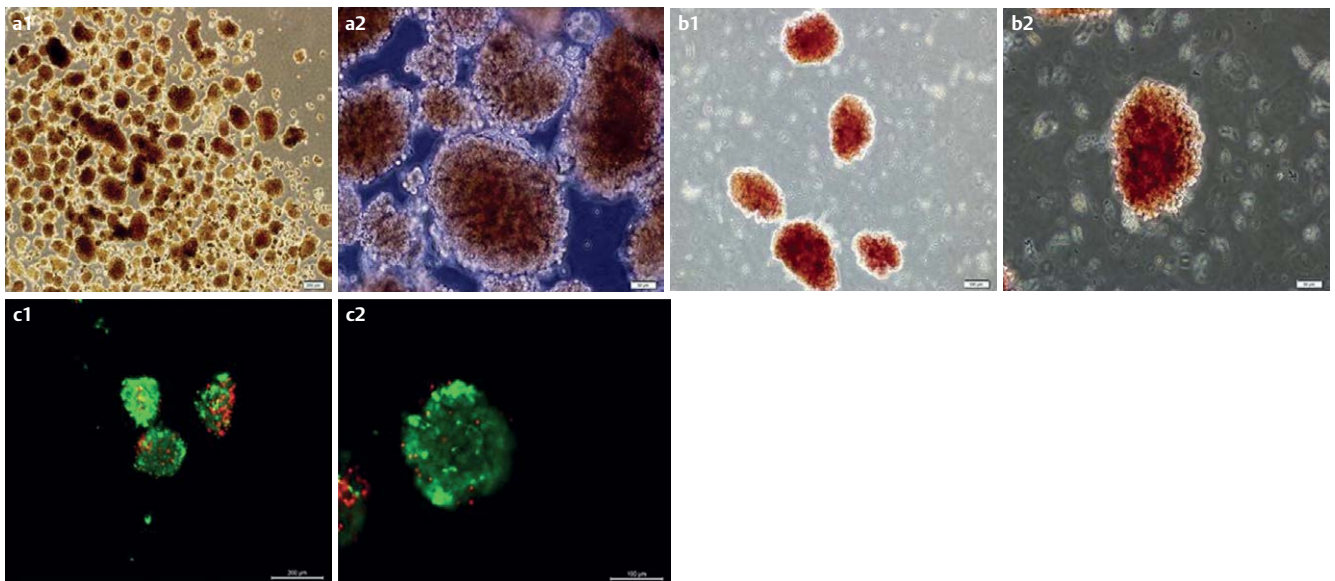


Supplementary Material



Supplementary Fig. 1 Characterization of undifferentiated ES Cells. Undifferentiated ESCs formed a compact colony **a1** and showed a high nuclear to cytoplasmic ratio **a2**. Strong red signals seen in all colonies of ESCs following AP staining (**b1-b2**). The pluripotency markers were shown by immune labeling against SSEA1 (**c1**), NANOG (**c2**), SOX2 (**c3**), OCT4 (**c4**) was positive. Nuclei were labelled with DAPI (blue). Scale bars: 100 μ m (**a1**, **b1**, **c2**, **c3** and **c4**); 50 μ m (**b2** and **c1**), 20 μ m (**a2**).



Supplementary Fig. 2 Characterization of mouse islets after isolation. The intact form of the islets was observed to be preserved under stereo microscope **a** DTZ staining in red color indicated the specificity of isolated islets **b**. Following FDA/PI staining, the dead cells were stained in red color and the live cells stained in green **c**. Scale bars: 200 μ m (**a1** and **c1**), 100 μ m (**b1** and **c2**), 50 μ m (**a2** and **b2**).