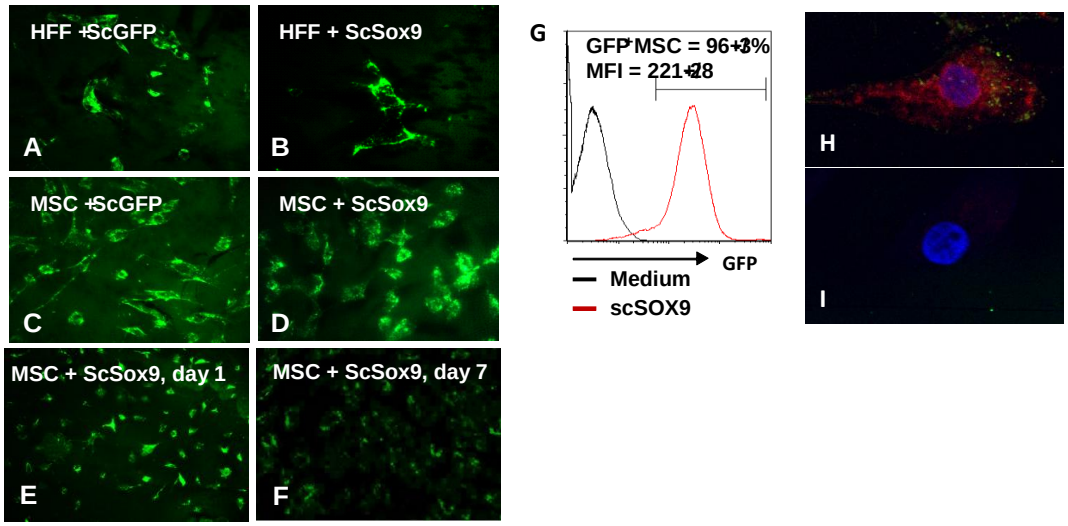

S1 Fig. Penetration of scSOX9 protein into HFF and MSC. Human skin fibroblast cell line, HFF (A and B) or human bone marrow MSC (C and D) were incubated with 10 μg/ml of supercharged green fluorescence protein (scGFP) or SOX9-scGFP fusion protein (scSOX9) in DMEM at 37°C for 1 hour. Cells were washed with PBS containing heparin to remove cell membrane bound scSOX9 and viewed under fluorescent microscope. A and C: scGFP; B and D: scSOX9. E and F: MSC cultured with scSOX9 as in D for 1 day and 7 days. G. MSC were treated scSOX9 as in D or with medium alone. Cells were washed and detached with trypsin and analyzed in flow cytometry. MFI, mean fluorescence intensity. H and I: MSC were grown in monolayer with scSOX9 (H) or medium alone (I). Cells were washed with PBS containing heparin and permeabilized, followed by incubation with anti-His-biotin and streptavidin-Cy3 (red) and viewed under a confocal microscope. The nucleus was stained blue with DAPI. Representative of 3 experiments.