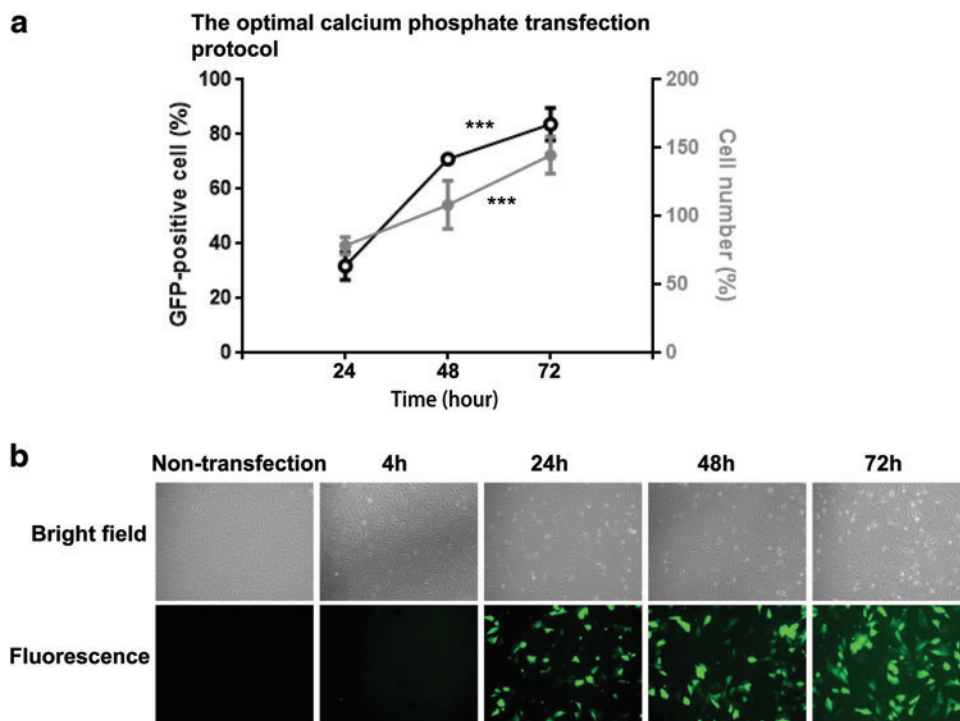


**SUPPLEMENTARY FIG. S3.** The effect of the serum-free complete cell culture medium (mTeSR™1) on transfection efficiency and cell viability during the calcium phosphate transfection. C57BL/6J MSCs were transfected with 40 µg pMaxGFP by calcium phosphate. The cells were incubated in the calcium phosphate-containing mTeSR1 for 4 hours and harvested 3 days after transfection. The transfection efficiency is calculated by GFP-positive cells ( $n=3$ ); the cell viability is analyzed by cell number, which is normalized to the original cell plating number ( $5 \times 10^3$ /dish) and shown as a percentage ( $n=3$ ).



**SUPPLEMENTARY FIG. S4.** The transfection efficiency and cell viability of MSCs transfected by calcium phosphate at different time points. C57BL/6J MSCs were transfected with pMaxGFP using our optimized calcium phosphate protocol as described in the Materials and Methods section at day 0 and then harvested in 24, 48, and 72 h for analyzing transfection efficiency (calculation by GFP-positive cells) ( $n=3$ ) and the cell viability (calculation by cell number; shown as a percentage) ( $n=3$ ) (a). The data were analyzed by one-way ANOVA. \*\*\* $p < 0.001$ . (b) Representative bright field and fluorescence images of MSCs after calcium phosphate transfection are shown at 4 (immediately after incubation), 24, 48, and 72 h. Original magnification, 50 $\times$ .