Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting information

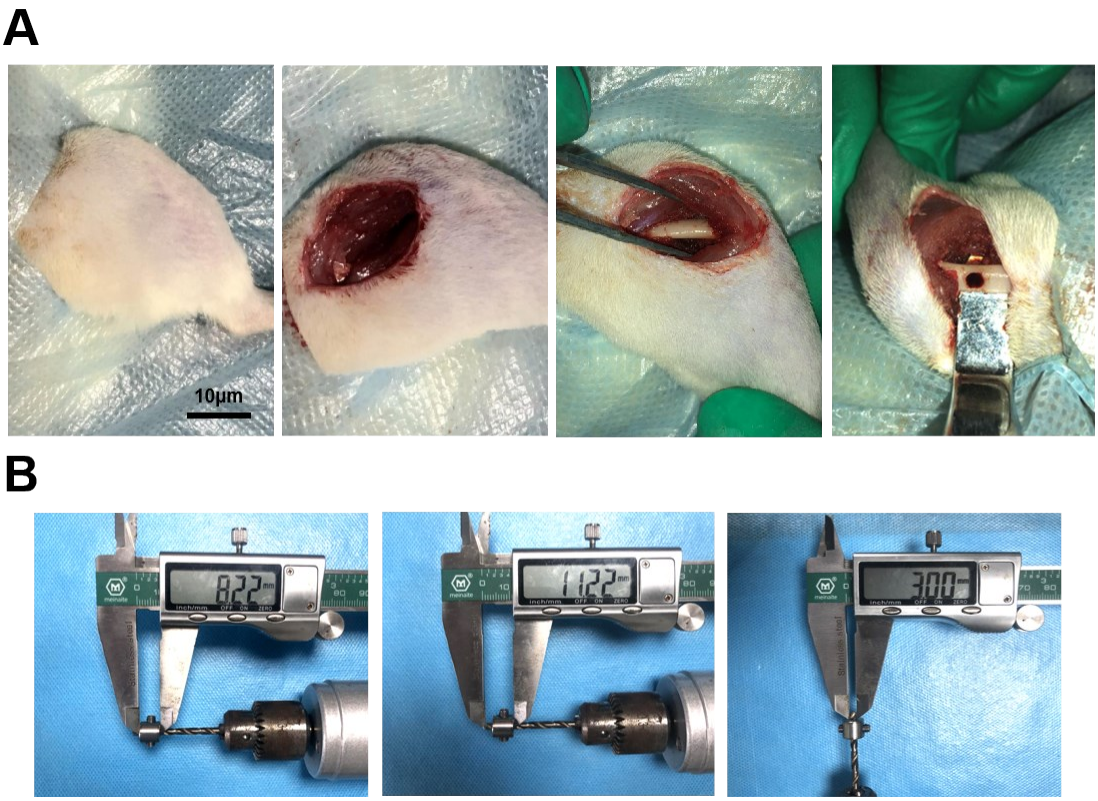

Fig S1 (A) The establishment process of femoral defect model in type 1 diabetes mellitus SD rats. (B) A defect with 3 mm in diameter and 3 mm in depth was created on femur by an electric drill.

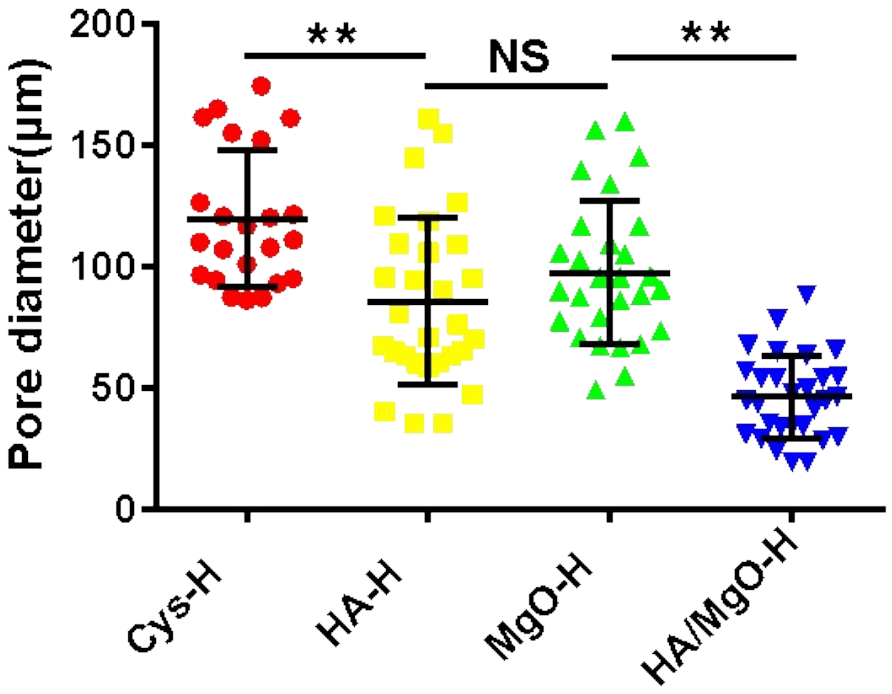

Fig S2 Quantitative analysis of pore diameter of Cys-H, HA-H, MgO-H and HA/MgO-H scaffold by Image J. (* $p < 0.05$, ** $p < 0.01$, NS means no statistical significance, n>3)

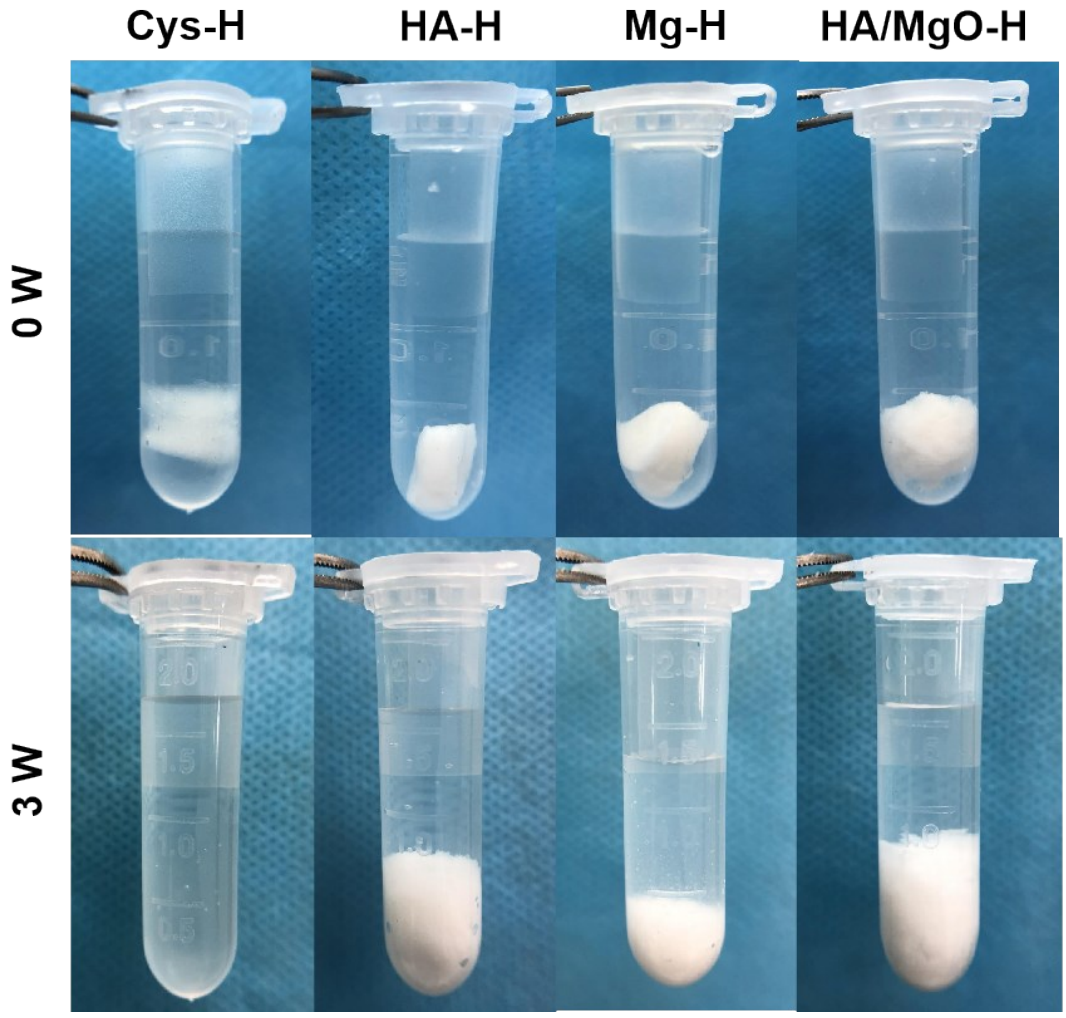

Fig S3 The apparent images of degradation of Cys-H, HA-H, MgO-H and HA/MgO-H scaffold in PBS at 37 ℃

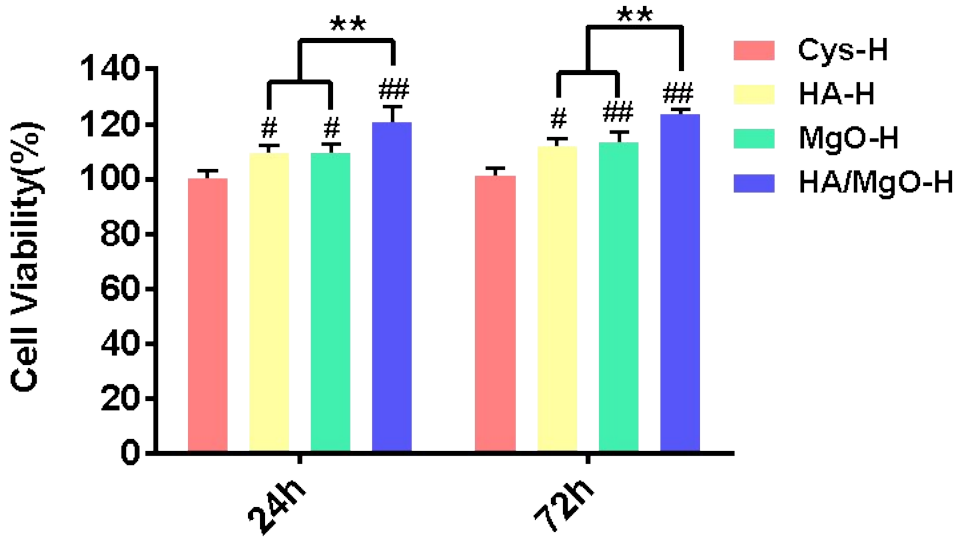

Fig S4 The cell viability of BMSCs treated with different scaffolds soaking solution was evaluated by the MTT assay after incubation for 24 h and 72 h. ($^{\#}$ compared with the control group treated with PBS, $^{*,\#}$ $p < 0.05$, $^{**,\#\#}$ $p < 0.01$, n=3).

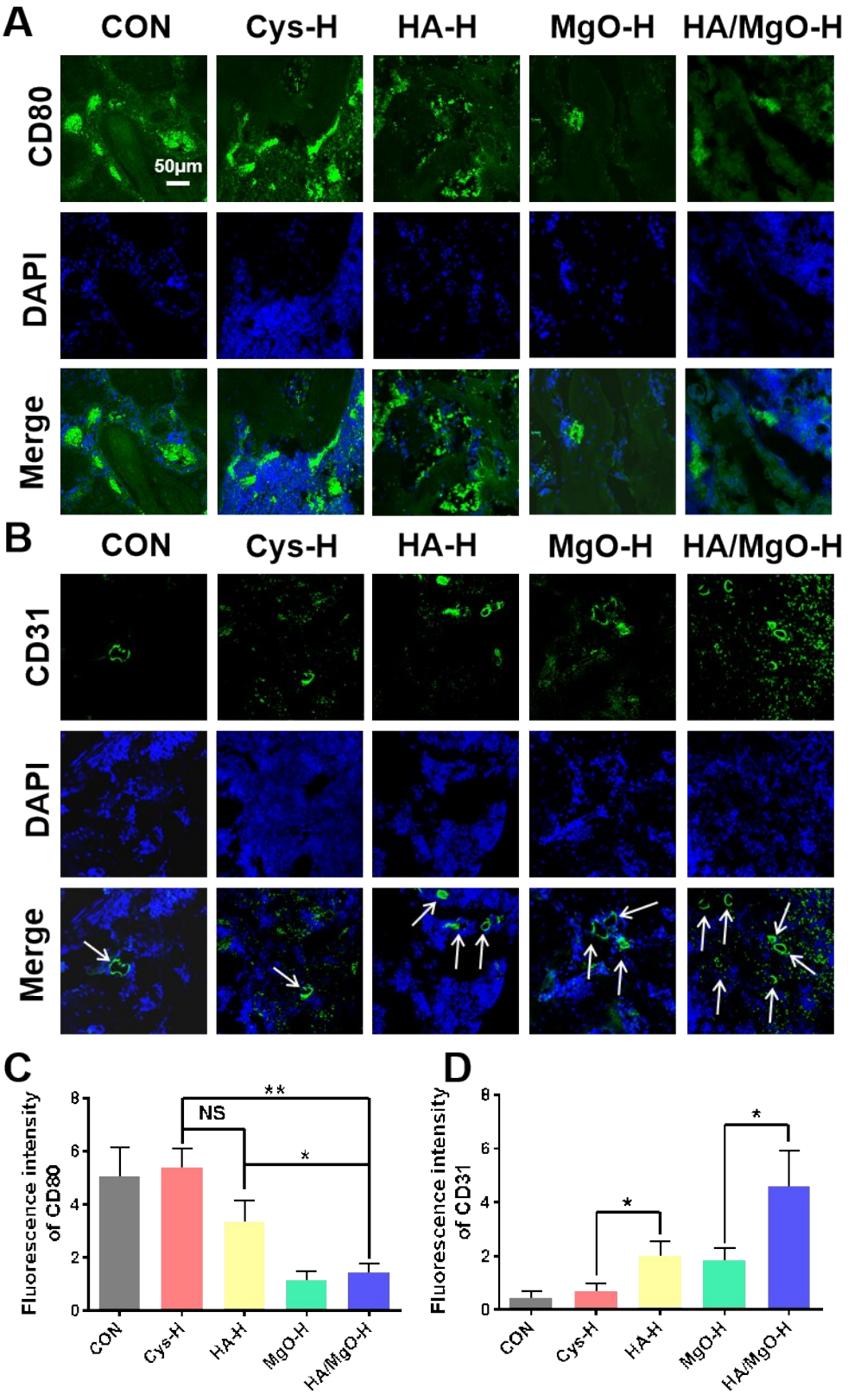

Fig S5 Immunofluorescence staining of (A) CD80 (green) and (B) CD31(green) of bone defects repair at 4 weeks after the different treatments. (white arrows indicated the microvessels); semi-quantification analysis of (C) CD80-positive and (D) CD31-

positive cells using Image J. (* $p < 0.05$, ** $p < 0.01$, NS means no statistical significance, n=3).