Supplementary material 2: Evaluation of immunogenicity and *in vivo* degradation of rCOL scaffold material.

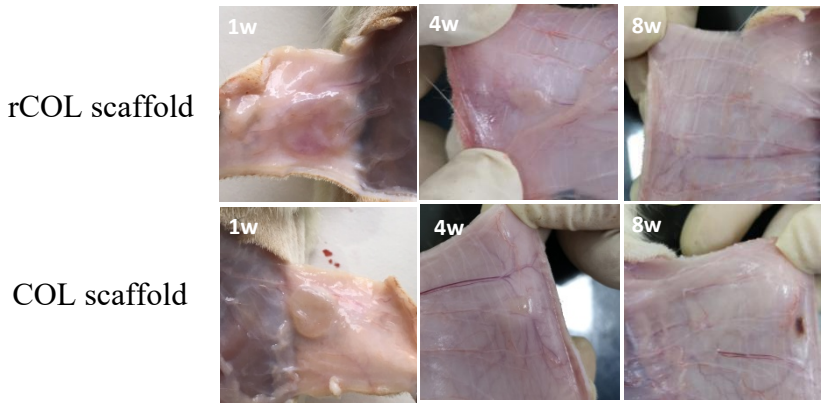

Figure S1. Degradation of node materials at different implantation time. After 4 weeks, the rCOL scaffold and the COL scaffold were degraded obviously, and the COL scaffold residue was less than that of the rCOL scaffold; The two groups of materials were completely degraded at 8 weeks. COL, commercially available animal-derived collagen; rCOL, recombinant human collagen.

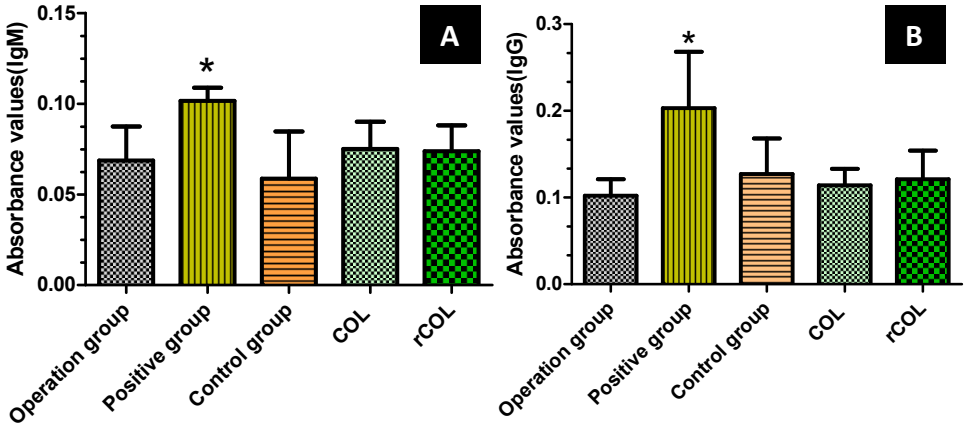

Figure S2. Immunoglobulin IgM and IgG content in 1 month post-implantation. (A)The expression of IgM in serum; (B) the expression of IgG in serum; "*" compared with the control group, $p < 0.05$. COL, commercially available animal-derived collagen scaffold; rCOL, recombinant human collagen scaffold.

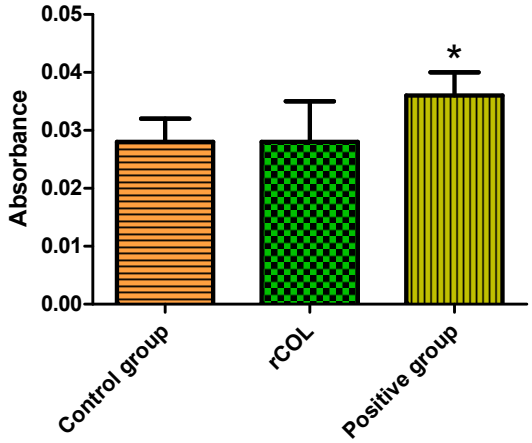

Figure S3. Results of T lymphocyte proliferation assay of rCOL scaffold *in vitro*. *"*"* compared with the control group, $p < 0.05$. rCOL, recombinant human collagen scaffold.