Supplementary Information

Preparation and investigation of a novel SrCl2/DCMC-modified (via DOPA) decellularized arteries with excellent physicochemical properties and cytocompatibility for vascular scaffolds

Supplementary Results

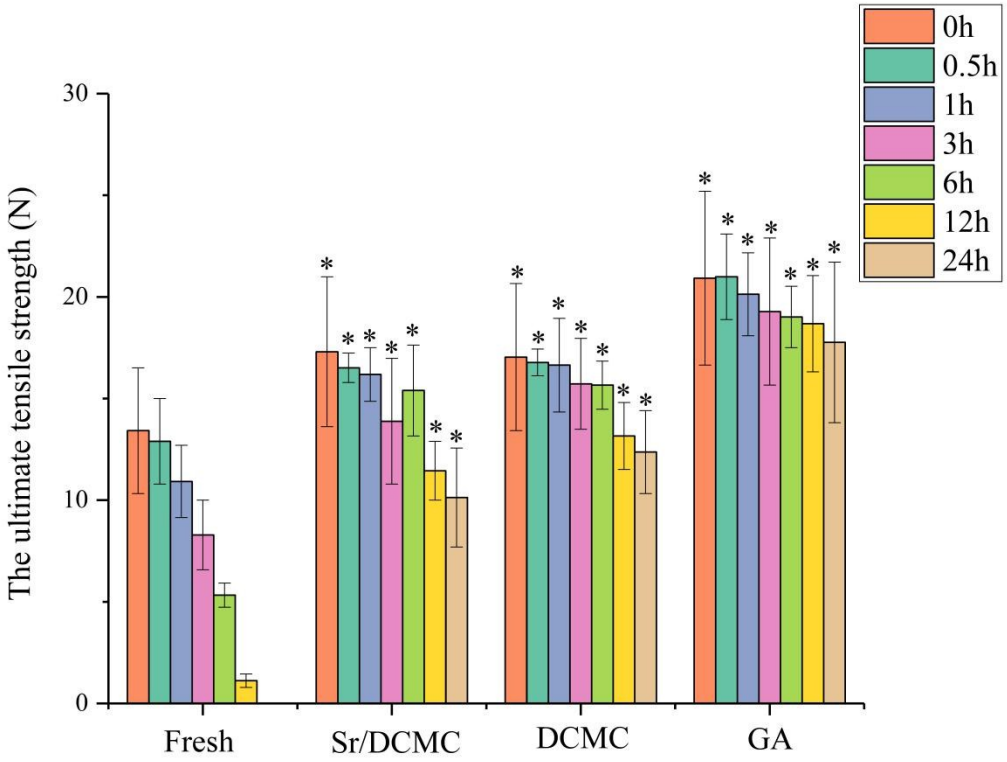
Supplementary Figure 1 The ultimate tensile stress of fresh, GA-fixed, DCMC-fixed samples, and then further modification by Sr^{2+} after enzymatic hydrolysis treatment at predetermined period (0.5 h, 1 h, 3 h, 6 h, 12 h and 24 h, respectively)

* indicated $P < 0.05$ compared with fresh samples

Supplementary Figure 2 The cytotoxicity of extraction liquid obtained from crosslinked tissues which treated by different concentration of Sr^{2+}

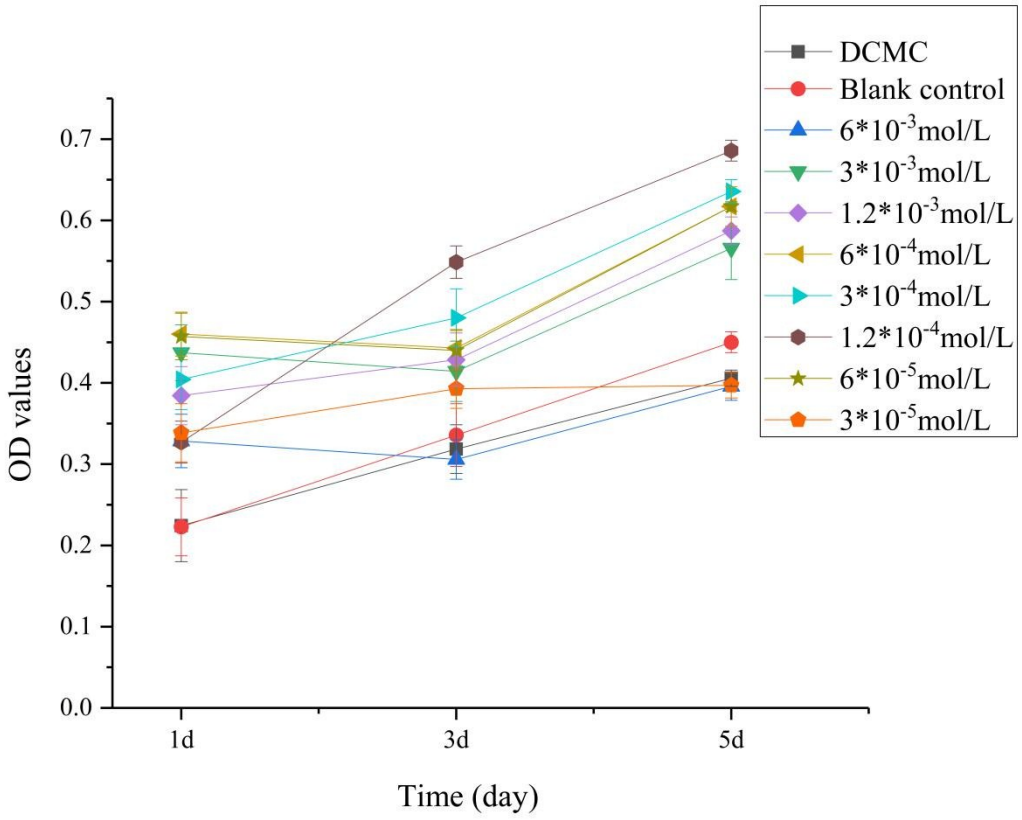
Supplementary Results

Supplementary Figure 1



To further evaluate mechanical properties and stability of testing samples, experiments of the ultimate tensile strength after enzymatic degradation were performed. As illustrated in SFig. 1, the ultimate tensile strength of DCMC-fixed groups was significantly higher compared with fresh groups. The results of $SrCl_2$/DCMC-fixed samples implied introduction of Sr^{2+} preserved mechanical properties and stability of DCMC-fixed tissues, which meant its potential application in medicine.

Supplementary Figure 2



To determine optimal concentration of Sr^{2+} for excellent cytocompatibility, OD values of extraction liquid of DCMC-fixed tissues modified by various concentration of Sr^{2+} were tested by MTT assay. L929 cells, which were the main components of human vessels, were seeded into the extraction liquid and the procedures were performed as reported. As shown in SFig. 2, the optimal concentration of Sr^{2+} was $1.2*10^{-4}$ mol/L.