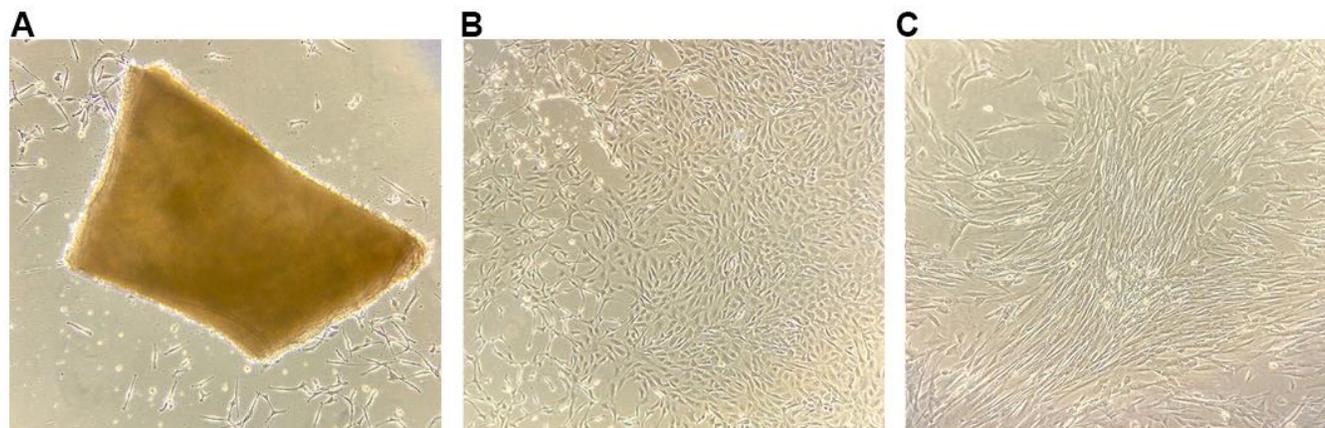
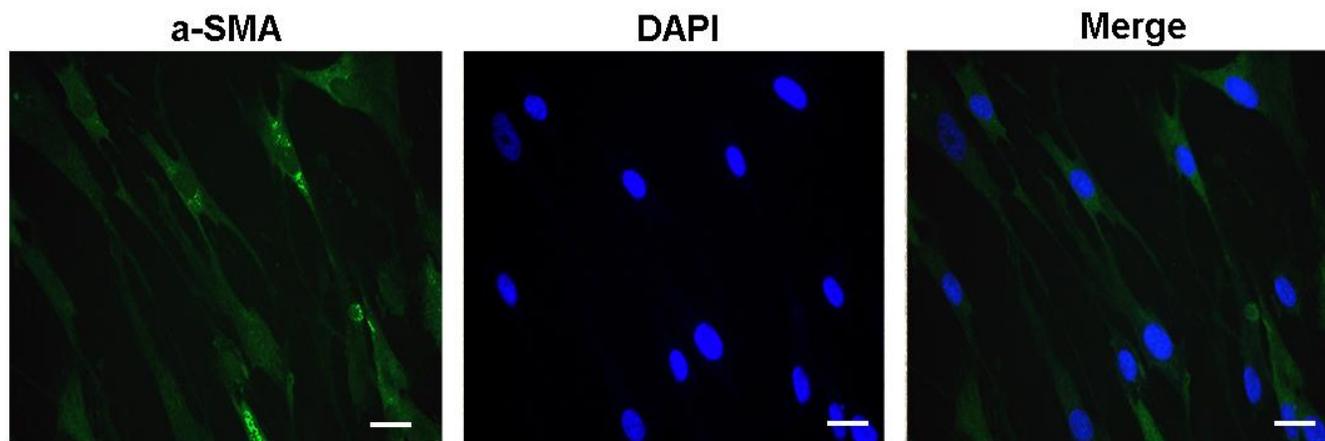


SUPPLEMENTARY FIGURES



Supplementary Figure 1. Evaluation of VSMCs morphology in rat thoracic aorta. The isolated rat thoracic aorta vascular tissue block was inoculated and cultured. After 2-4 days, the cells could be seen crawling out of the edge. After 6-10 days of culture, the cells grew rapidly, spreading in a spindle shape, and fused into pieces. Passage after reaching 80% density, the characteristic "peak-valley" phenomenon of smooth muscle cells can be seen during the growth process. (A) VSMCs crawled out of the tissue block. (B) VSMCs fusion after 6-10 days. Quantitative analysis of RUNX2 expression. (C) Peak-valley phenomenon. (magnification: $\times 40$).



Supplementary Figure 2. Identification of vascular smooth muscle cells (VSMCs). Expression of α -SMA in VSMCs was determined using immunofluorescence (magnification: $\times 400$). VSMCs at passage 6 were used for smooth muscle-specific protein (α -SMA) immunofluorescence staining and the result was obtained from a confocal microscopy. A large number of actin filaments parallel to the long axis (green fluorescence) in the cytoplasm was observed and regarded as α -SMA-positive cells. The nuclei were stained with DAPI. The percentage of α -SMA positive cells was more than 95%. Scale bar = $20\mu\text{m}$.