

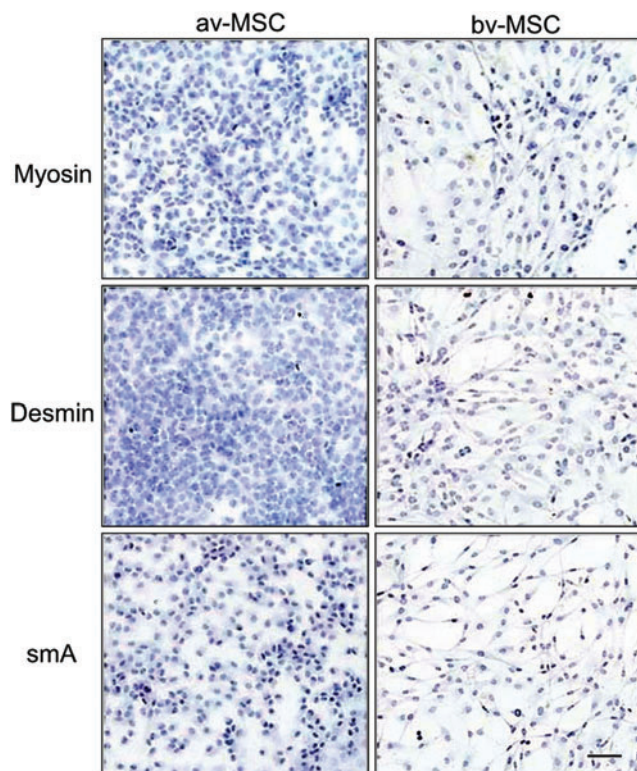
## Supplementary Data

### Supplementary Method

#### *Immunocytochemical cell characterization*

Cells on chamber slides were fixed in acetone for 4 min and rehydrated in phosphate-buffered saline before they were immunolabeled with myosin (mouse IgG1, 1.9  $\mu\text{g}/\text{mL}$ ; Sigma-Aldrich), desmin (mouse IgG1, 0.2  $\mu\text{g}/\text{mL}$ ; Dako), and smA (mouse IgG2a, 0.2  $\mu\text{g}/\text{mL}$ ; Dako) for 30 min at room temperature. All antibodies were diluted in antibody diluent (Dako) and reactivity was visualized with the

UltraVision LP Detection System (Thermo Scientific). After four washing steps, the primary antibody enhancer was applied for 10 min, followed by another four washing steps. Slides were incubated with horseradish peroxidase polymer for 15 min, washed four times again, and stained with 3-amino-9-ethylcarbazole for 5 min. Eventually, slides were washed in distilled water and counterstained with Mayer's hemalum (Merck). After a last washing step with distilled water they were mounted with Kaiser's glycerol gelatin (Merck).



**SUPPLEMENTARY FIG. S1.** Expression of muscle cell markers. Amnion-derived avascular mesenchymal stromal cells (av-MSCs) and chorionic-blood-vessel-derived mesenchymal stromal cells (bv-MSCs) lack expression of muscle cell markers, such as myosin, desmin, and smooth muscle actin (smA). Scale bar = 50  $\mu\text{m}$ .