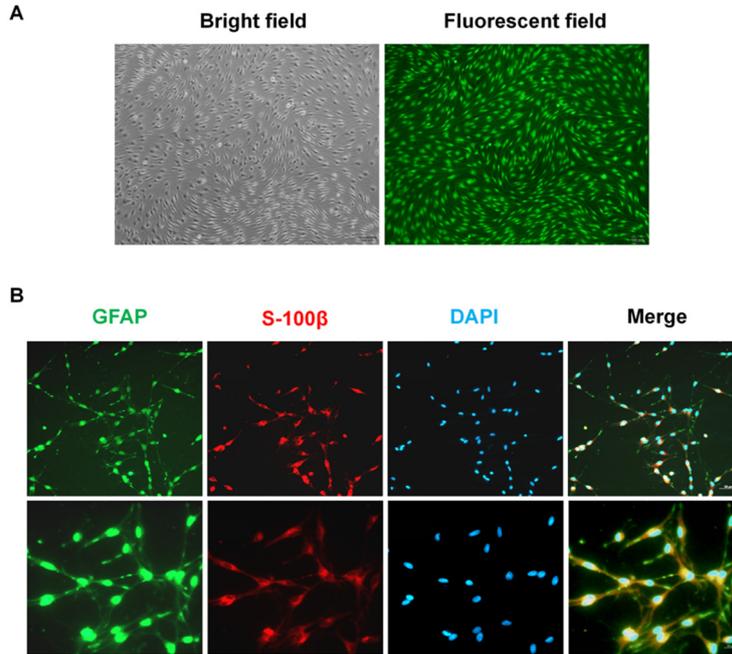
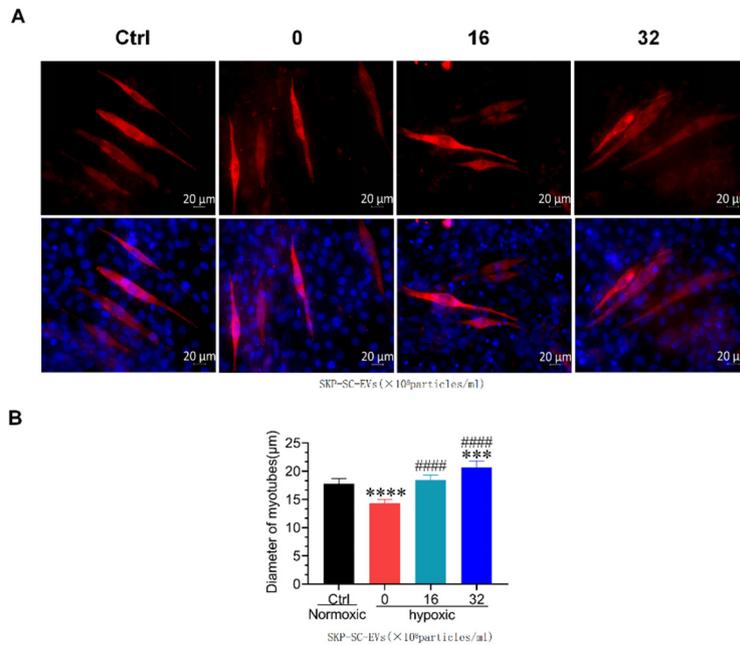


**Supplemental Figures**



**Supplementary Figure S1.** Identification of SKP-SCs. (A) The SCs from SKP were spindle-shaped and arranged in parallel. Scale bar = 100  $\mu\text{m}$ . (B) SCs derived from SKP were positive for GFAP (green) and S-100 $\beta$  (red), and the nucleus was labeled with DAPI (blue). Scale bar = 50  $\mu\text{m}$  (low magnification); scale bar = 20  $\mu\text{m}$  (high magnification). SCs, Schwann cells; SKP, skin-derived precursors.



**Supplementary Figure S2.** SKP-SC-EV biological activity verification. (A) MHC immunofluorescence staining of C2C12 myotubes. Myotubes after hypoxia were treated with different doses of SKP-SC-EVs. After 12 hours of hypoxia, we observed the effects of SKP-SC-EVs on

C2C12 myotubes. Scale bar = 20  $\mu\text{m}$ . **(B)** Histogram indicating the change in myotube diameter in different-dose treatment groups. \*\*\* $p < 0.001$  and \*\*\*\* $p < 0.0001$  vs. control (Ctrl) group; #### $p < 0.0001$  vs. 0 group. EVs, extracellular vesicles. SCs, Schwann cells; SKP, skin-derived precursors.