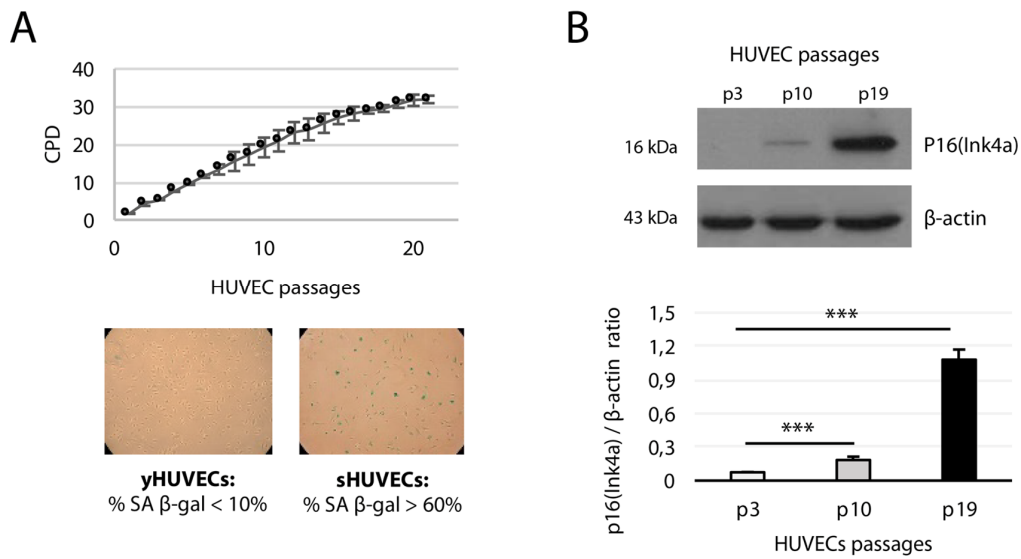
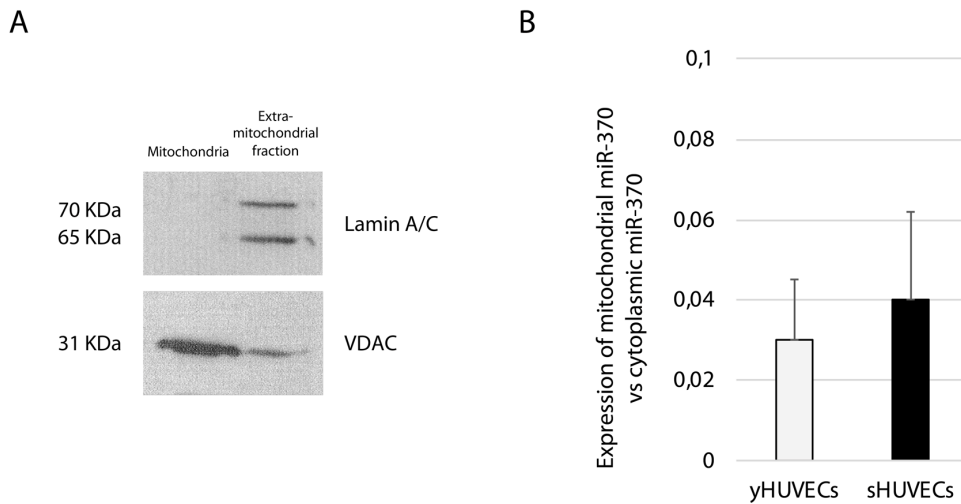


**SUPPLEMENTARY FIGURES**



**Supplementary Figure 1. Phenotypical characterization of HUVECs.** (A) Growth curve showing cumulative population doublings (CPDs) of three different HUVEC pools undergoing replicative senescence (X axis: cell passages from P1 to P21) and representative positivity for SA β-Gal in young (< 10%) and senescent HUVECs (> 60%) cells. (B) Western blot and densitometric analysis of p16(Ink4a) at passages p3, p10, and p19 of the growth curve. Protein expression values are reported as p16(Ink4)/β-actin ratio.



**Supplementary Figure 2. Purity assessment of isolated mitochondria.** (A) Western blot analysis of Lamin A/C and VDAC from mitochondria-enriched and extra-mitochondrial (cytosol and nuclei) fractions after mitochondria isolation. (B) Ratio of miR-370 expression in the isolated mitochondrial fraction to the cytoplasmic fraction in yHUVECs and sHUVECs.