

Figure S1. Osteogenic, Adipogenic, and chondrogenic potential of hASCs. hASCs were induced to differentiate toward the three mesodermal lineages. **A:** osteogenesis: calcium deposits visualized by Alizarin Red staining; **B:** adipogenesis: lipid content stained by Oil Red O staining; **C:** chondrogenesis: Safranin O Staining.

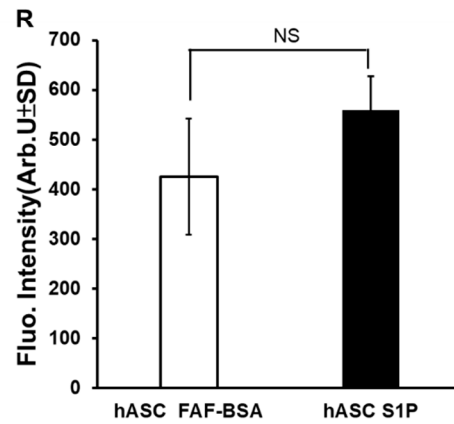
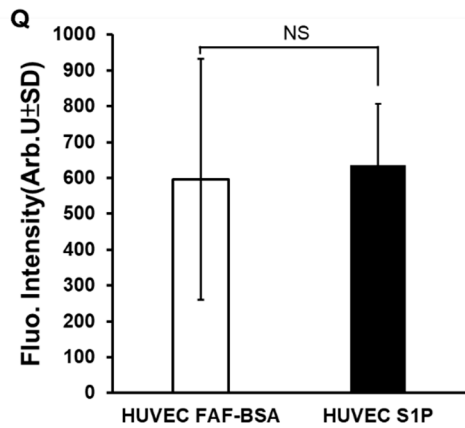
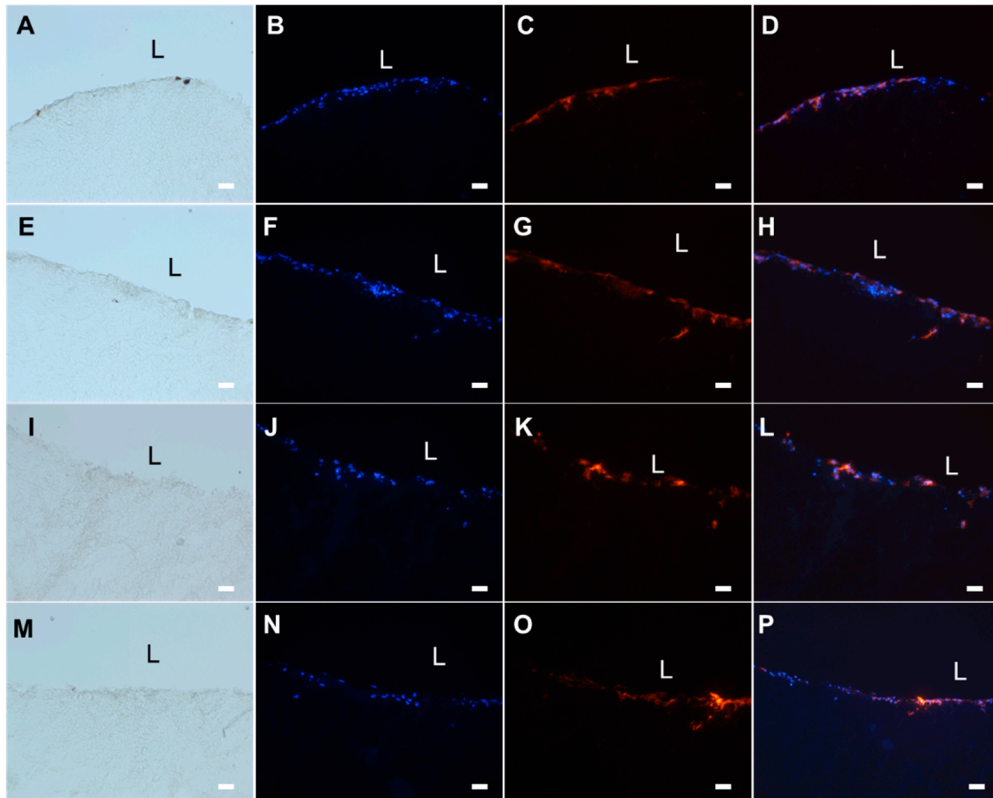


Figure S2. Adhesion and proliferation of hASC and HUVEC on DHUA with S1P at day 14. Cells prestained by CM-Dil seeded on DHUA under 14 days of S1P treatment. first column: bright field, second column: CM-Dil, third column: DAPI, fourth column: merge. **A,B,C,D:** images of HUVECs

seeded on DHUA without S1P; **E,F,G,H**: images of HUVECs seeded on DHUA with S1P; **I,J,K,L**: images of hASCs seeded on DHUA without S1P; **M,N,O,P**: images of hASCs seeded on DHUA with S1P; **Q**: fluorescence intensity of CM-Dil in HUVEC-seeded DHUA without and with S1P; **R**: fluorescence intensity of CM-Dil in hASC-seeded DHUA without and with S1P. It indicated that both HUVEC and hASC reached about 80% coverage to the DHUV and there was no significantly difference between the groups in present S1P and without S1P when the treatment was continuous to day 14, (all magnification 200×, scale bar = 5 μm). L: Lumen. NS: not significant.