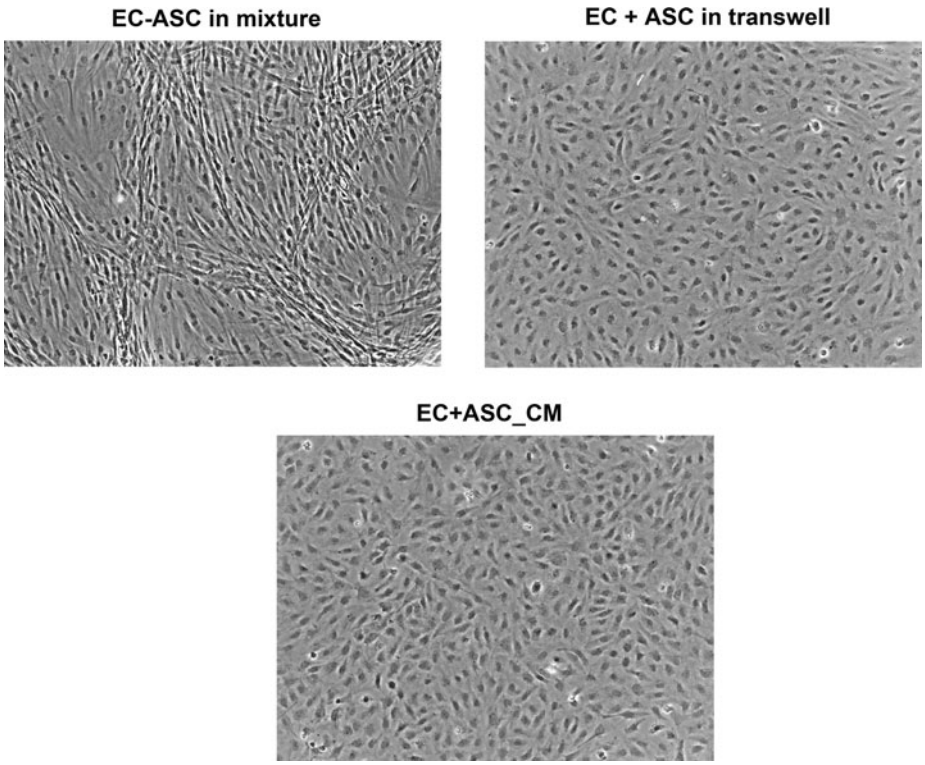
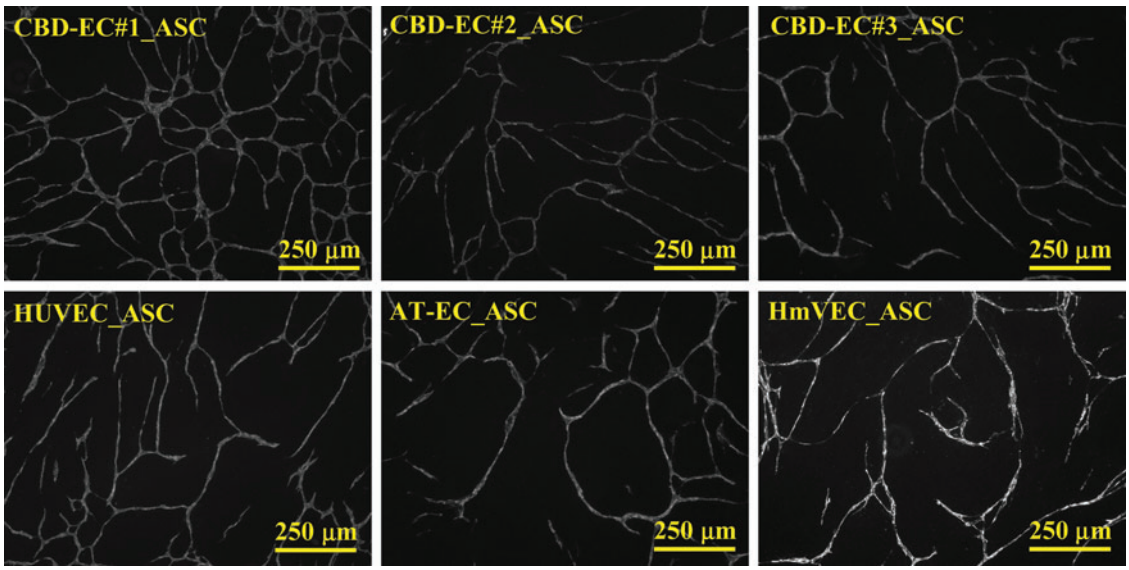
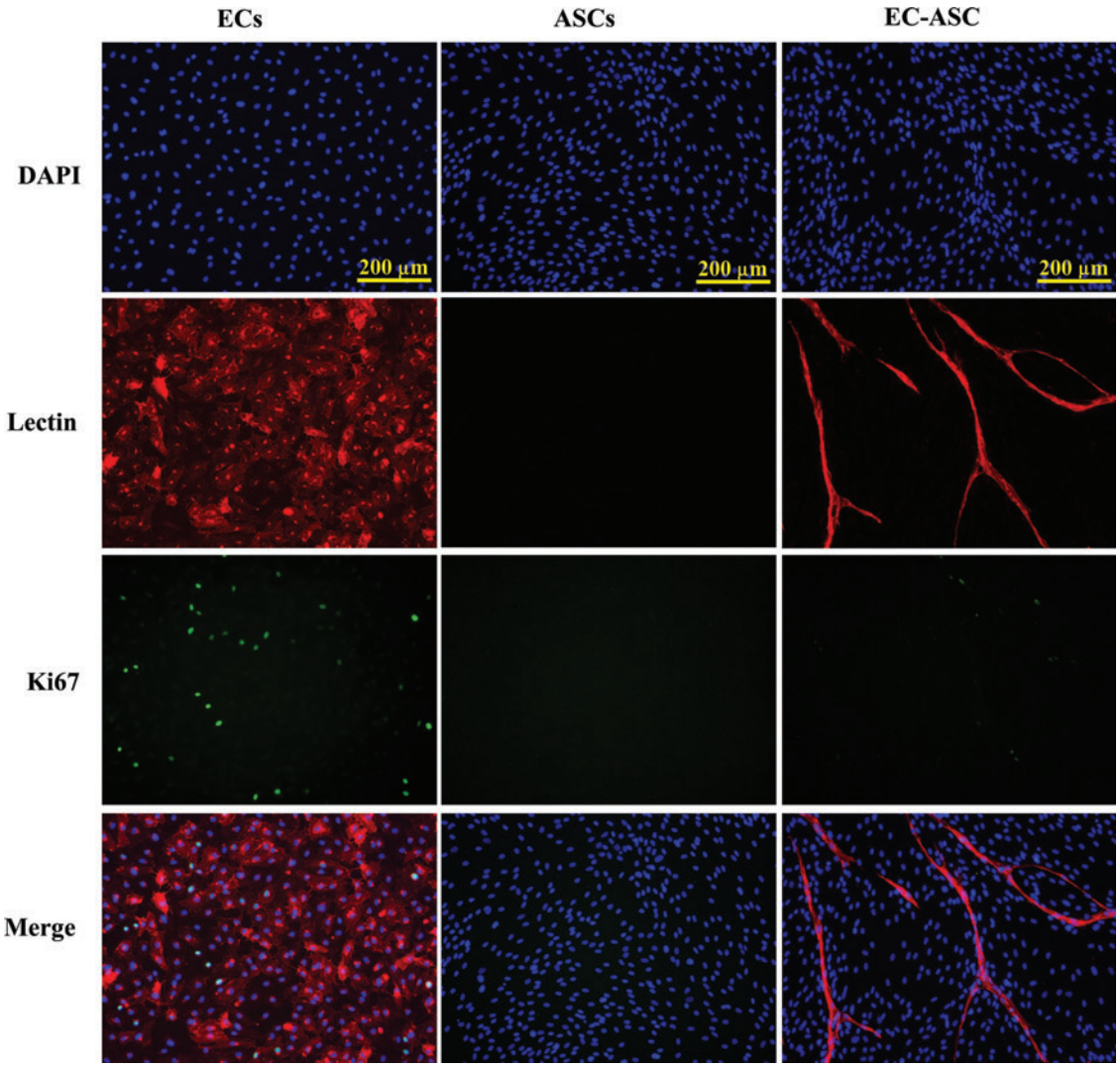


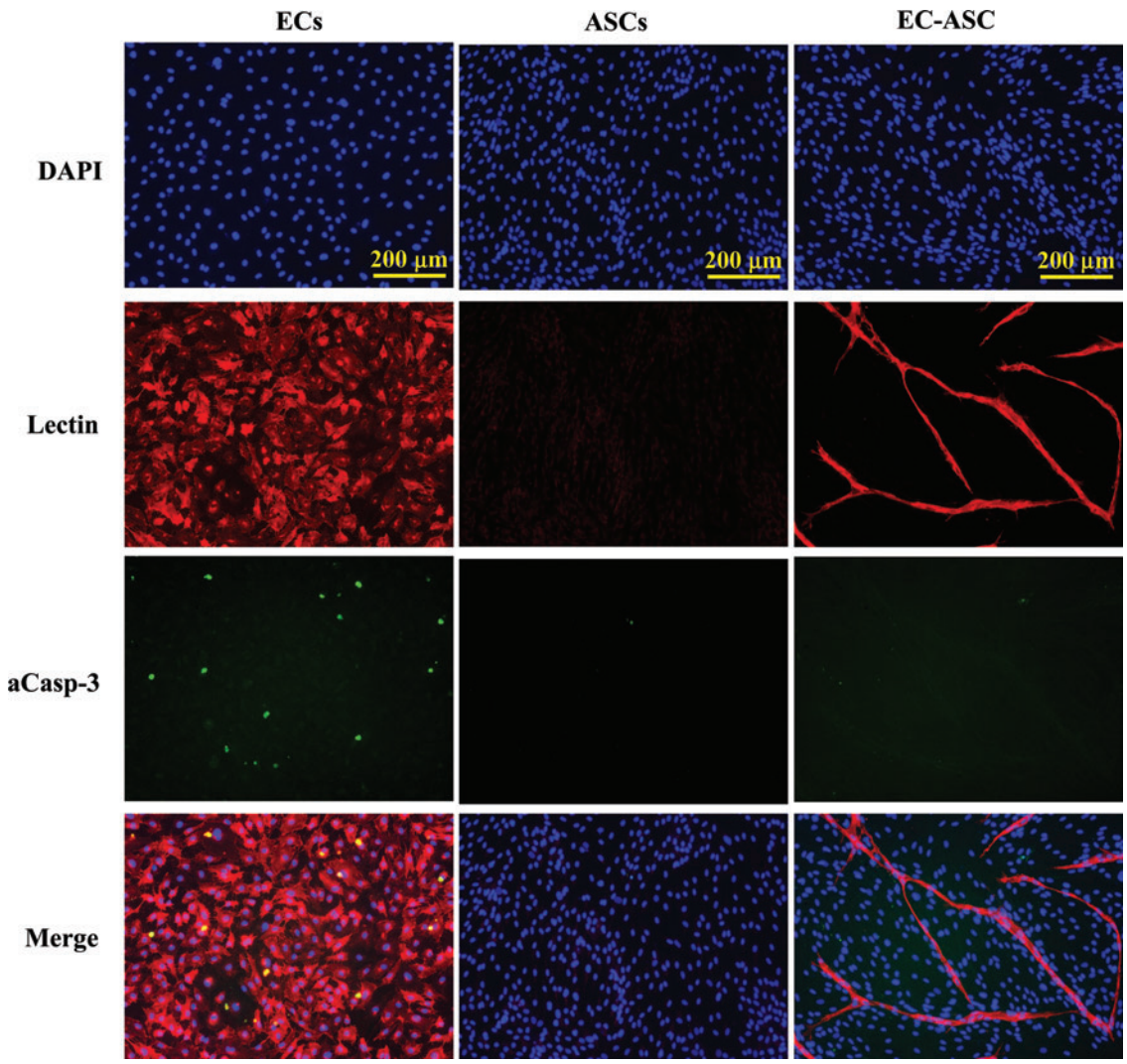
SUPPLEMENTAL FIG. S1. Representative images of cord-blood-derived (CBD) endothelial cells (ECs) cultured on adipose stromal cell (ASC) monolayer (paracrine cross-talk and direct contact), CBD-EC cocultured with ASCs in the same well but physically separated by the transwell membrane (paracrine cross-talk, but no direct contact), or CBD-EC cultured alone in the medium conditioned (CM) by ASCs for 72 h.



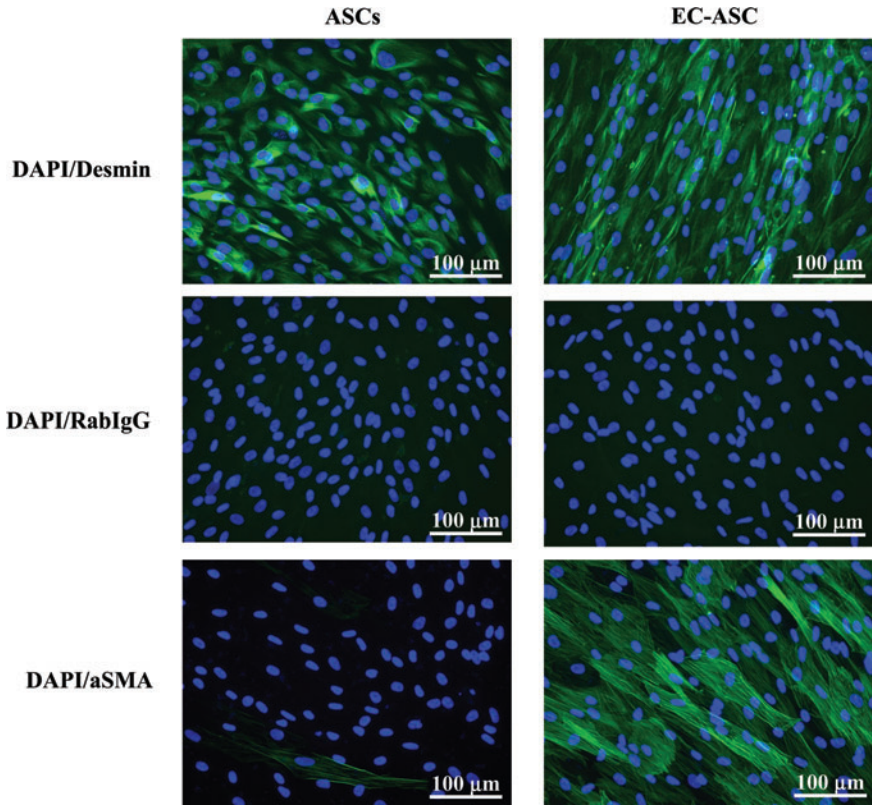
SUPPLEMENTAL FIG. S2. Representative fluorescent images of vascular networks formed by ECs from several sources on ASC monolayers. CBD-ECs isolated from three patients, human umbilical vein ECs (HUVECs), adipose tissue derived ECs (AT-ECs), and cardiac human microvascular ECs (HmVECs) were plated on top of ASC monolayer and cultured for 6 days. EC-formed cord structures were revealed by probing cocultures for CD31 antigen and sequential incubation with Alexa 488–labeled secondary IgG.



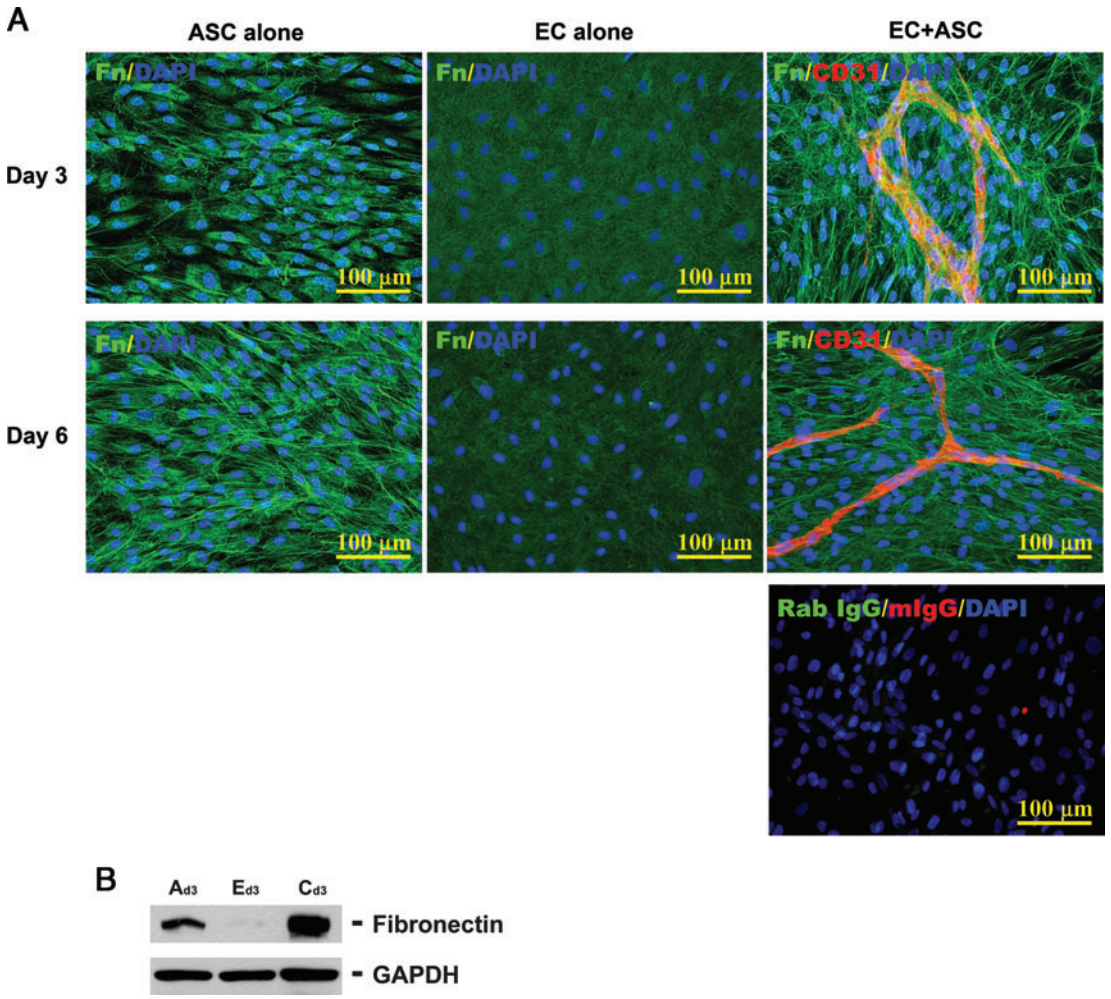
SUPPLEMENTAL FIG. S3. Representative images of ASC and EC monocultures and EC-ASC cocultures probed for Ulex lectin (red) and Ki67 (green). Nuclei were revealed by DAPI staining (blue).



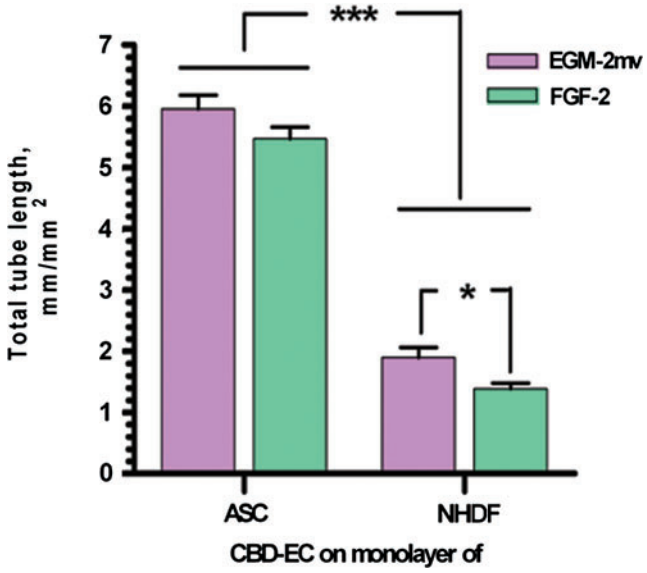
SUPPLEMENTAL FIG. S4. Representative images of ASC and EC monocultures and EC-ASC cocultures probed for Ulex lectin (red) and active caspase-3 (aCasp-3) (green). Nuclei were revealed by DAPI staining (blue).



SUPPLEMENTAL FIG. S5. Representative images of ASC monoculture (ASC) and EC-ASC coculture (EC-ASC) that were probed for desmin, isotype control rabbit IgG (RabIgG), or α-smooth muscle actin (αSMA) (green) at day 6 postplating. Nuclei were revealed by DAPI staining (blue).



SUPPLEMENTAL FIG. S6. **(A)** Representative images of ASC and EC monocultures and EC-ASC cocultures probed for fibronectin (Fn) (green) and CD31 (red, only EC-ASC cocultures) at days 3 and 6 postplating or for rabbit and mouse IgGs at day 6 postplating. Nuclei were revealed by DAPI staining (blue). **(B)** Analysis of fibronectin protein expression in ASC (A_{d3}) and EC (E_{d3}) monocultures and EC-ASC cocultures (C_{d3}) at day 3 postplating by Western blot. Expression of glyceraldehyde 3-phophate dehydrogenase (GAPDH) protein was used as a control for the protein loading.



SUPPLEMENTAL FIG. S7. Quantitative analysis of vascular network formation (VNF) by ECs cultured on monolayers of ASCs or normal human dermal fibroblasts (NHDFs) that were expanded for two passages in the EGM-2mv or FGF-2 medium before plating ($n = 6$, $^{*}p \leq 0.05$, $^{***}p \leq 0.001$).