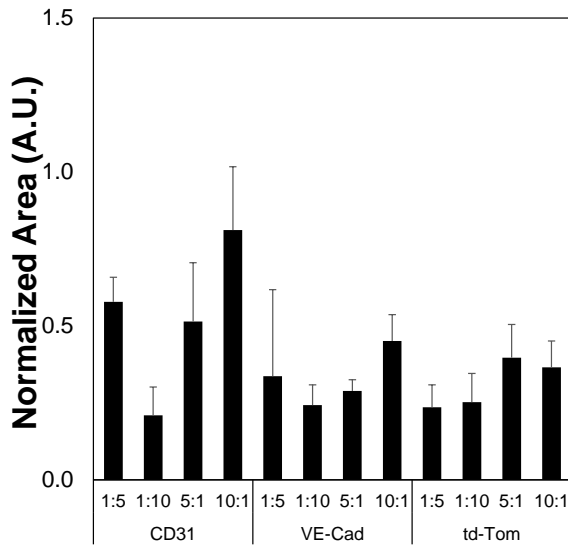


Supplemental Information

(A)



(B)

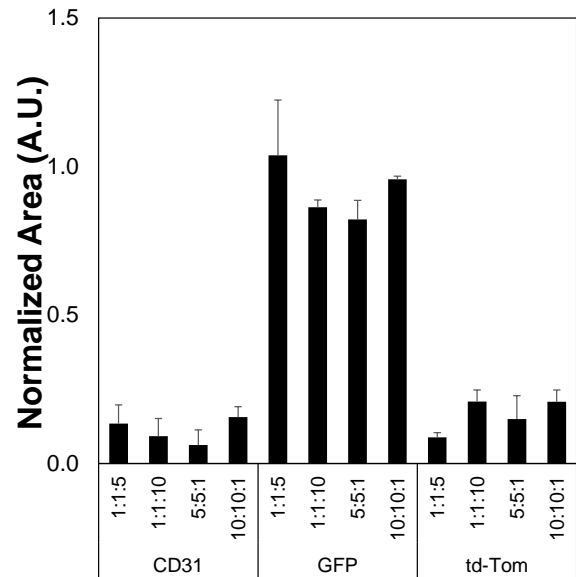


Figure S1. Expression levels of ECs, BON cells, or CAFs in direct co-culture systems, related to steps 38-45 and 46-49. Quantification of positive area for each stain for either ECs (CD31 or VE-Cad), BON (td-Tom), or CAFs (GFP) from direct co-culture studies, related to data shown in Figure 6. No significant differences were observed for any markers between cell ratio sample groups. GFP levels were generally higher than CD31 or td-Tom, which is most likely due to the increased proliferation rate of CAFs compared to the ECs and BON cells.

Table S1. Pearson's Correlation Coefficient (PCC) controls for stem cell markers and in HMEC-1:BON cell studies, related to step 49 and Table 9

	Ratio HMEC:BON	PCC	Interpretation
BON:CD31	1:5	0.311 ± 0.013	Weak
	1:10	0.119 ± 0.023	Weak
	5:1	0.308 ± 0.031	Weak
	10:1	0.315 ± 0.012	Weak
CD31:ALDH1A1	1:5	0.232 ± 0.010	Weak
	1:10	0.064 ± 0.008	Negligibile
	5:1	0.110 ± 0.001	Weak
	10:1	0.117 ± 0.010	Weak
CD31:CD36	1:5	0.281 ± 0.006	Weak
	1:10	0.095 ± 0.044	Negligibile
	5:1	0.228 ± 0.055	Weak
	10:1	0.261 ± 0.012	Weak
BON:VE-Cad	1:5	0.275 ± 0.026	Weak
	1:10	0.232 ± 0.041	Weak
	5:1	0.373 ± 0.027	Weak
	10:1	0.520 ± 0.069	Moderate
Ve-Cad:CD44	1:5	0.278 ± 0.016	Weak
	1:10	0.185 ± 0.043	Weak
	5:1	0.325 ± 0.044	Weak
	10:1	0.501 ± 0.085	Moderate

Table S2. Pearson's Correlation Coefficient (PCC) for stem cell markers in HMEC-1:CAF:BON cell studies, related to Step 49 and Table 10

	Ratio HMEC:CAF:BON	PCC	Interpretation
BON:CAF	1:1:5	0.200 ± 0.038	Weak
	1:1:10	0.096 ± 0.007	Negligible
	5:5:1	0.077 ± 0.013	Negligible
	10:10:1	0.113 ± 0.006	Weak
BON:CD31	1:1:5	0.288 ± 0.061	Weak
	1:1:10	0.236 ± 0.044	Weak
	5:5:1	0.149 ± 0.021	Weak
	10:10:1	0.238 ± 0.018	Weak
CAF:ALDH1A1	1:1:5	0.216 ± 0.106	Weak
	1:1:10	0.024 ± 0.008	Negligible
	5:5:1	0.020 ± 0.010	Negligible
	10:10:1	0.071 ± 0.003	Negligible
CAF:CD31	1:1:5	0.290 ± 0.016	Weak
	1:1:10	0.073 ± 0.005	Negligible
	5:5:1	0.048 ± 0.009	Negligible
	10:10:1	0.060 ± 0.017	Negligible
CAF:CD36	1:1:5	0.372 ± 0.033	Weak
	1:1:10	0.075 ± 0.020	Negligible
	5:5:1	0.028 ± 0.005	Negligible
	10:10:1	0.079 ± 0.007	Negligible

Note: Related to Step 49 and Table 9.