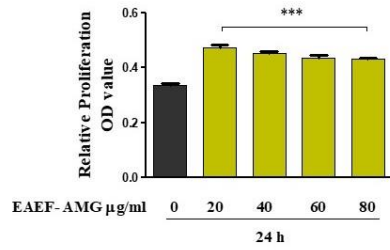
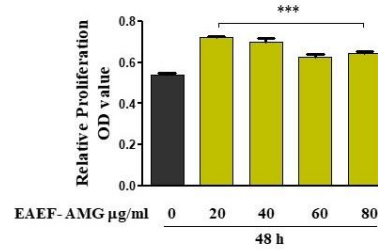


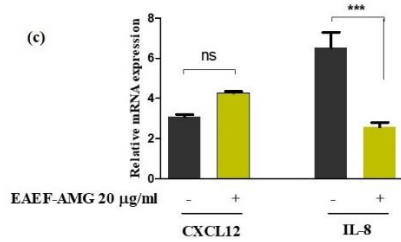
(a)



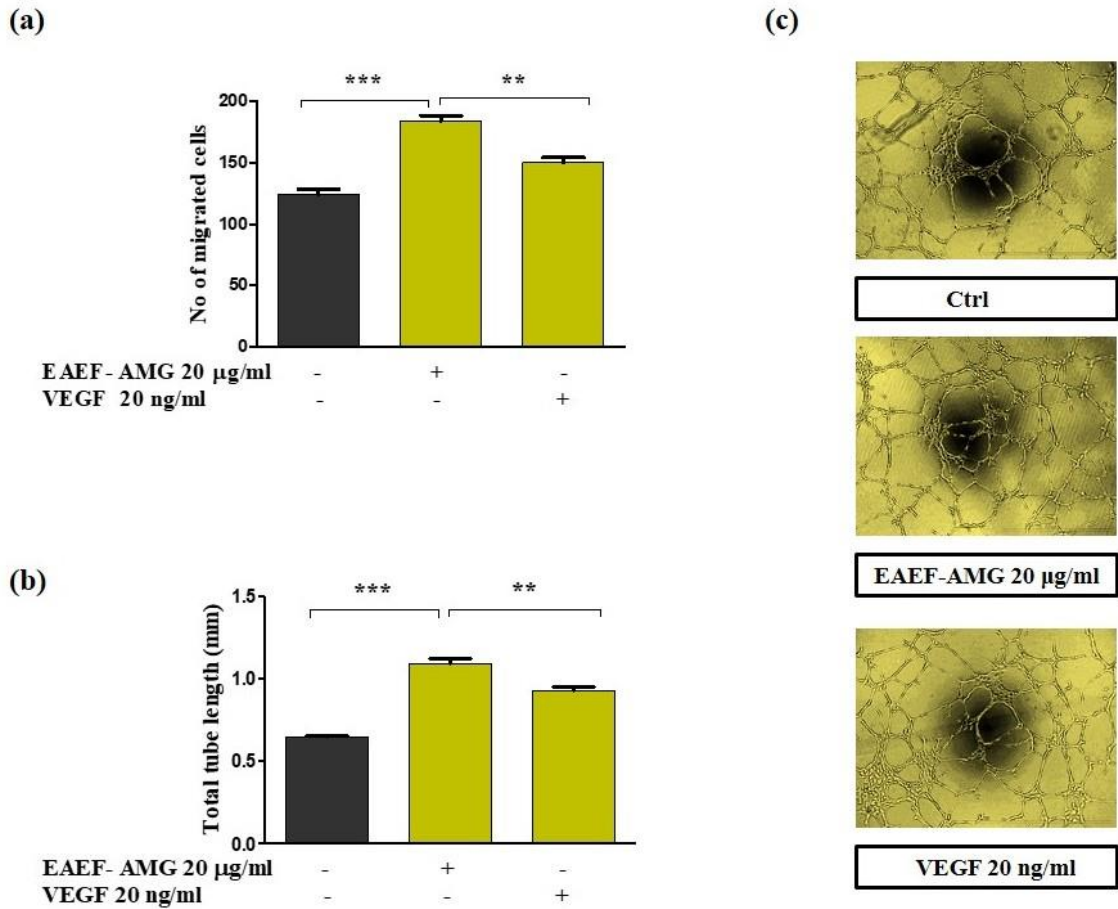
(b)



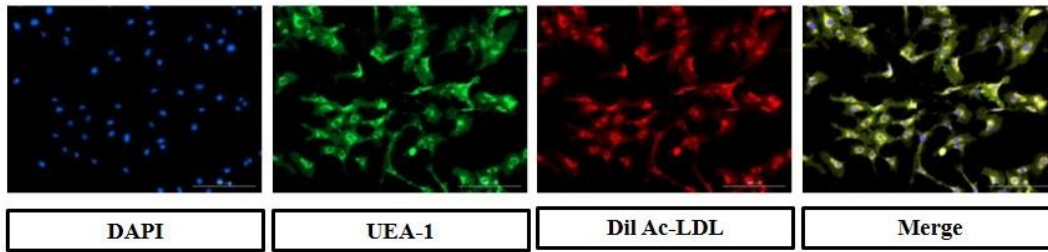
(c)



Supplementary Figure 1. Enzyme aided extraction of fucoidan by AMG enhances EPC proliferation. (a-b) Enzyme aided extraction of fucoidan by AMG treated with different doses (20, 40, 60, and 80 $\mu\text{g/mL}$) for 24 h and 48 h, following which cell proliferation was measured by WST-1. (c) RNA was isolated and relative mRNA levels of CXCL12 and IL-8 between control and 20 $\mu\text{g/mL}$ EAEF-AMG treated cells were determined by qRT-PCR. Data are presented as mean \pm standard error of the mean (SEM). The results are considered as statistically significant at * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$ when compared to untreated groups.



Supplementary Figure 2. EAEF-AMG and VEGF enhances angiogenic activity. (a) Cells were treated with EAEF-AMG (20 µg/mL) or VEGF (20 ng/mL) for 6 h, and then capillary structures were acquired using a light microscope (Olympus, Tokyo, Japan). Total tube length and branches were quantified using ImageJ software (NIH, Maryland, USA). Data are presented as mean ± standard error of the mean (SEM). The results are considered as statistically significant at *P < 0.05; **P < 0.01; ***P < 0.001 when compared to untreated groups.



Supplementary Figure 3. Characterization of EPCs. EPCs phenotype was confirmed by immunofluorescence, by uptake of Dil acetylated-LDL or binding of fluorescently labeled Ulex- europaeus agglutinin 1 plant lectin