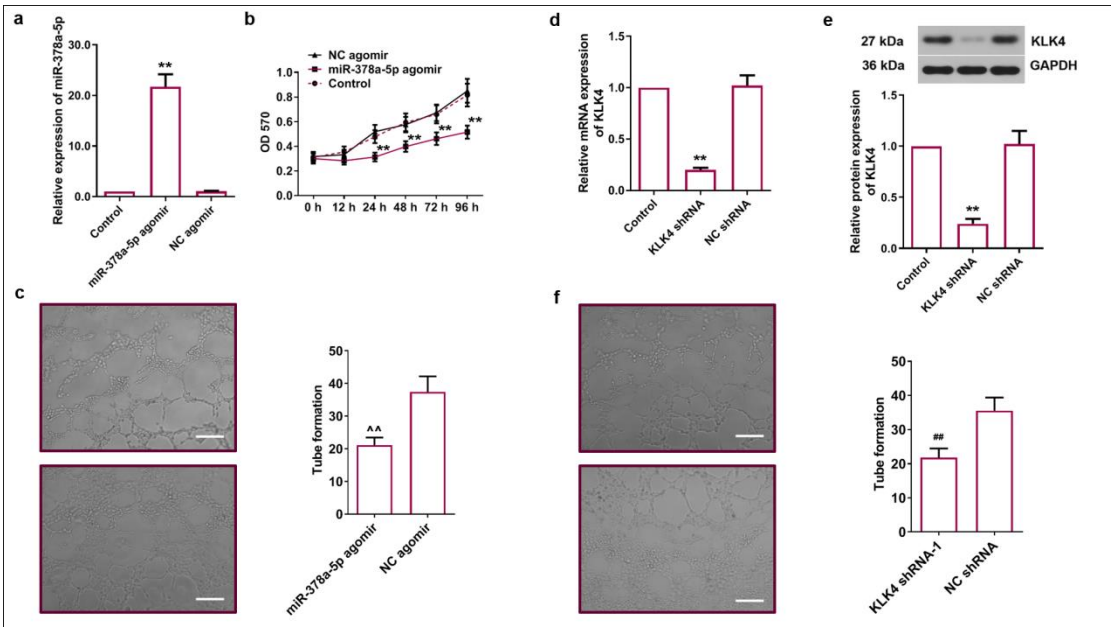

Figure S1 Effect of miR-378a-5p and KLK4 on angiogenesis. (a) Expression of miR-378a-5p in TSCCA cells was evaluated by quantitative real-time PCR. **(b)** MTT assay was used to detect cell proliferation. **(c)** HUVECs were treated with the conditioned medium from miR-378a-5p agomir or NC agomir transfected TSCCA cells, and the angiogenesis activity was detected by tube formation assay. **(d, e)** The expression level of KLK4 in TSCCA cells was measured by quantitative real-time PCR and western blot. **(f)** HUVECs were treated with the conditioned medium from KLK4 shRNA or NC shRNA transfected TSCCA cells, and the angiogenesis activity was detected by tube formation assay. All data were presented as mean ± SD. $^{**}p<0.01$ *vs.* control cells; $^{\wedge\wedge}p<0.01$ *vs.* NC agomir transfected cells; $^{\#\#}p<0.01$ *vs.* NC shRNA transfected cells.

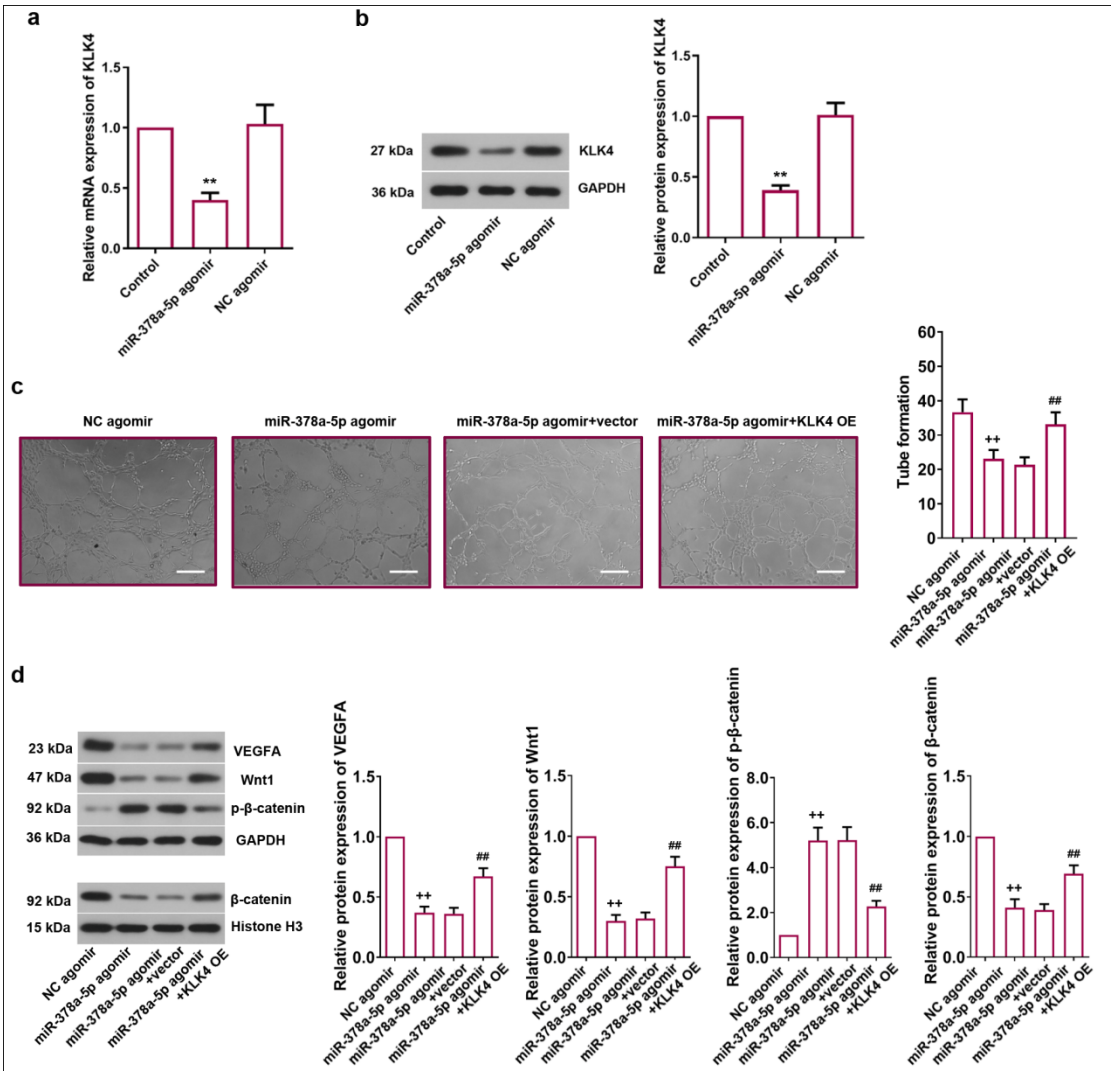

Figure S2 MiR-378a-5p regulates angiogenesis by targeting KLK4 and blocking Wnt/β-catenin signaling pathway. (a, b) The expression level of KLK4 in miR-378a-5p agomir or NC agomir transfected TSCCA cells was measured by quantitative real-time PCR and western blot. **(c)** HUVECs were treated with different conditioned medium and the angiogenesis activity was determined by tube formation assay. **(c)** The protein levels of VEGFA, Wnt1, p-β-catenin and intranuclear β-catenin in TSCCA cells were determined by western blot assay. All data were presented as mean ± SD. $^{**}p<0.01$ *vs.* control cells; $^{++}p<0.01$ *vs.* NC agomir transfected cells; $^{\#\#}p<0.01$ *vs.* NC shRNA transfected cells.

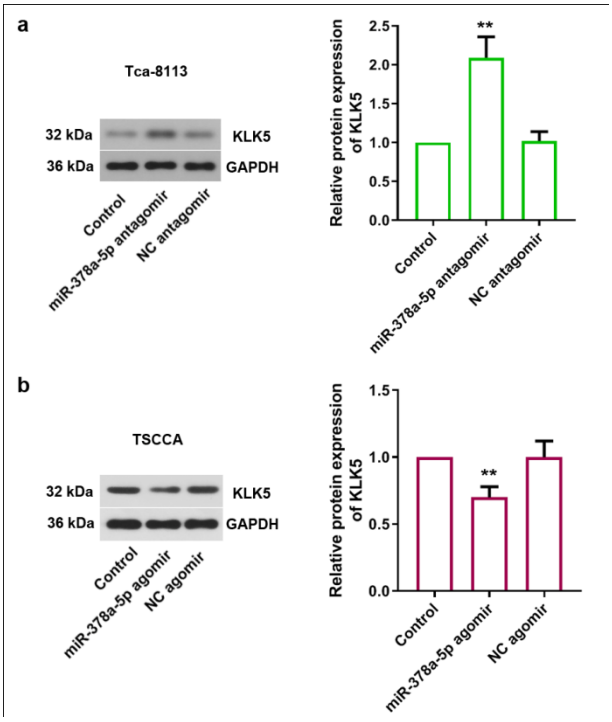

Figure S3 The expression of KLK5. The expression of KLK5 in Tca-8113 **(a)** and TSCCA **(b)** cells were determined by western blot. All data were presented as mean ± SD. ***p*<0.01 *vs.* control cells.