

SUPPLEMENTARY FIGURES AND METHODS

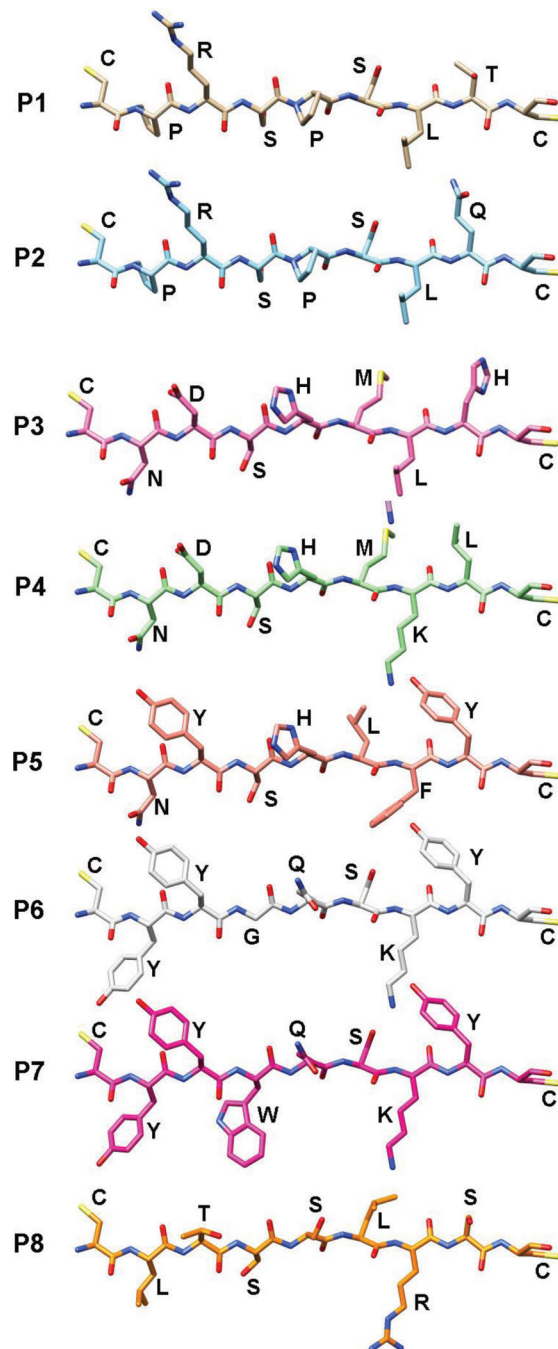
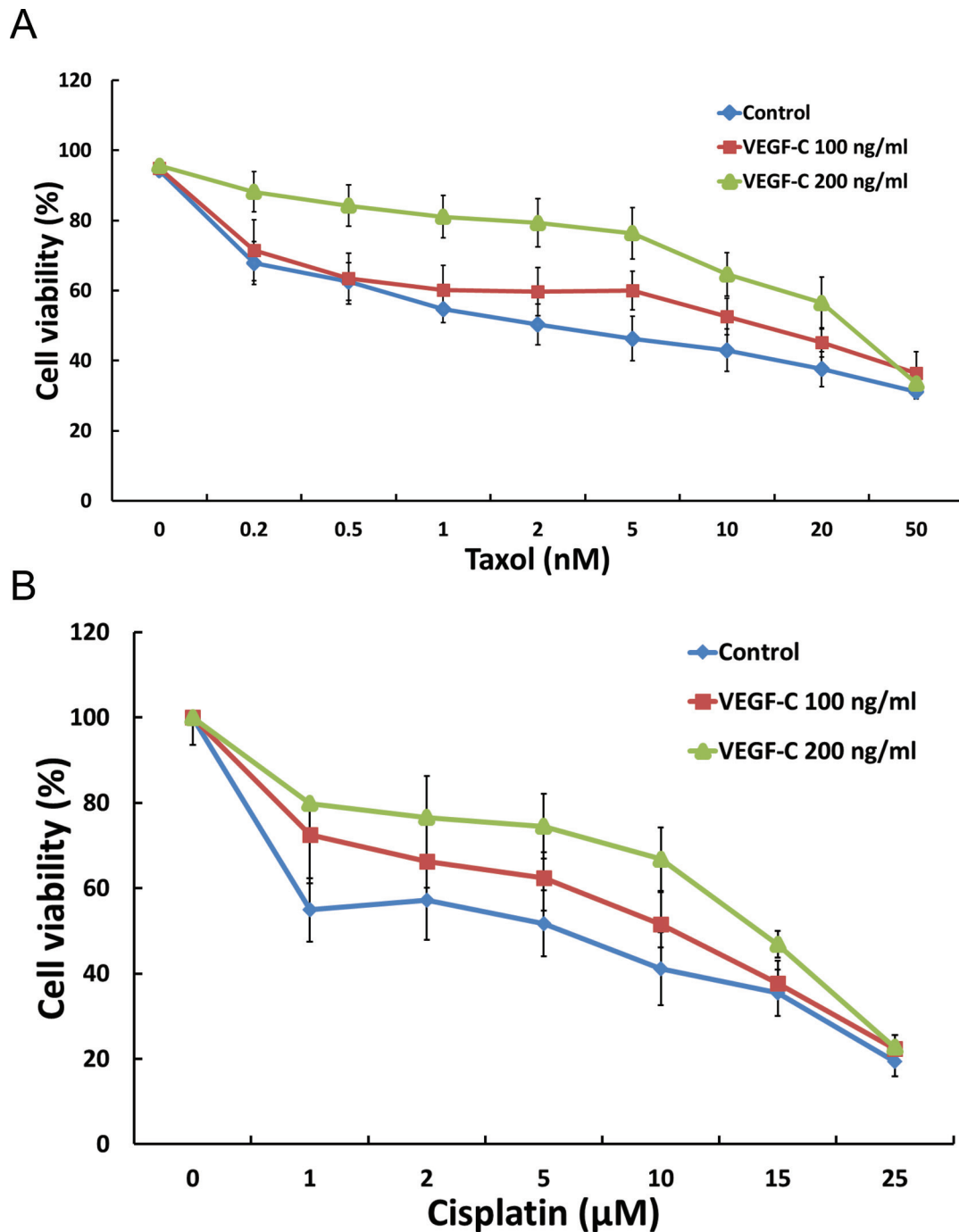


Figure S1: The peptide residues were shown as stick models with carbon atoms in different colors. From upper to lower, we presented structures of P1 to P8 peptides.



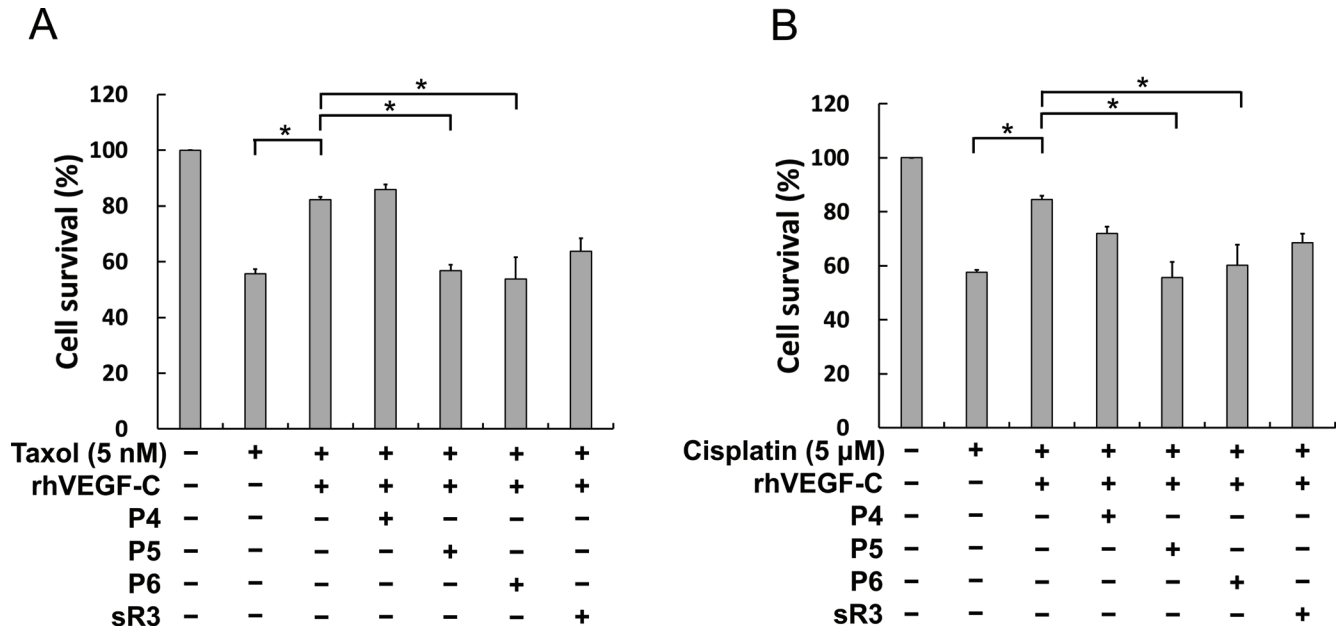


Figure S3: P5 and P6 peptides inhibit VEGF-C-induced drug resistance by MTT assay. Taxol (A) and cisplatin (B) were treated with the indicated peptides and rhVEGF-C in A549 cells. The cell survival rates were measured by MTT assay. Columns, mean of three independent experiments; bars, SD. *, $p < 0.05$ statistically significant decrease compared with the corresponding control value.

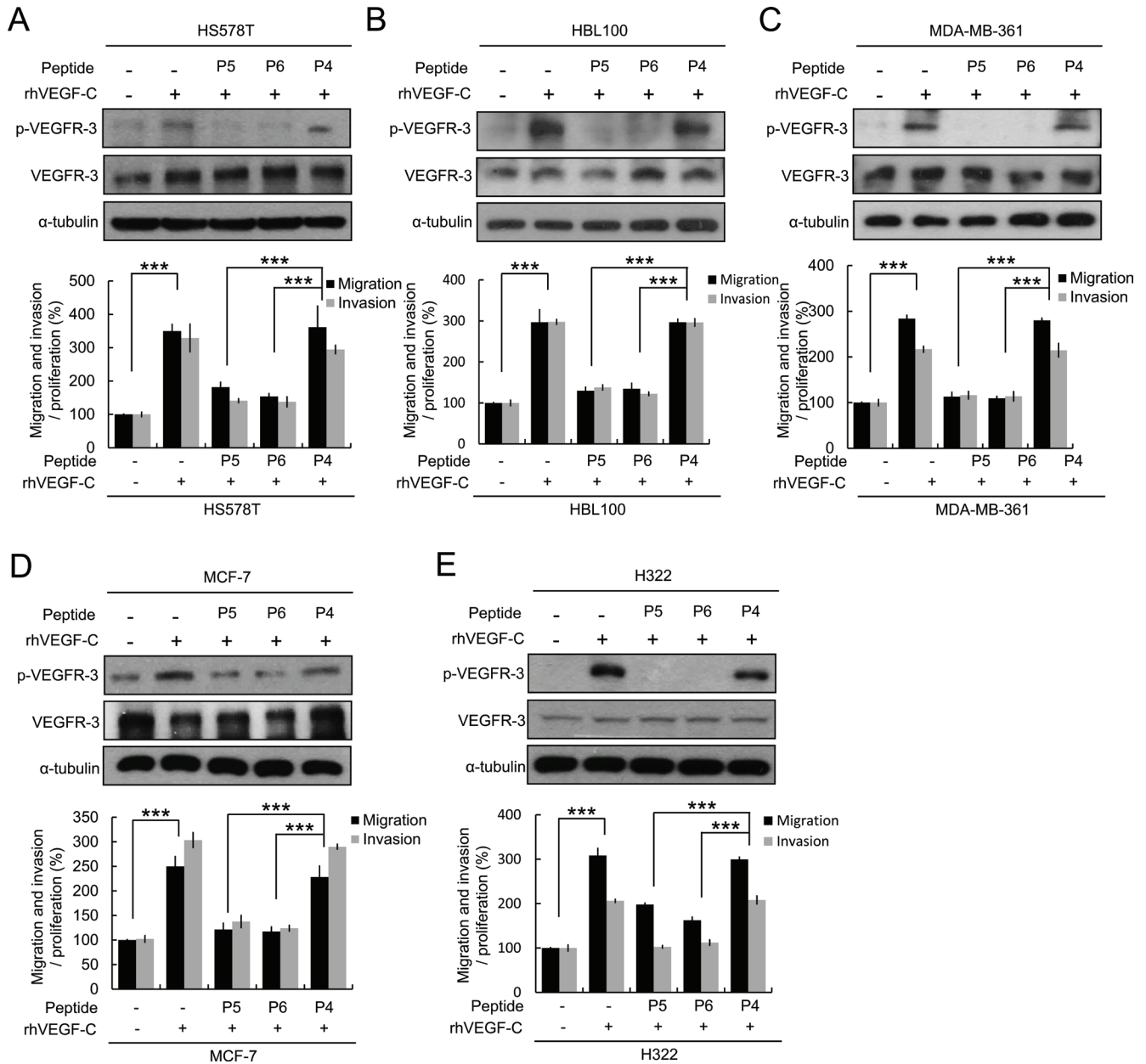


Figure S4: P5 and P6 peptides inhibit VEGF-C/VEGFR-3 signaling and decrease cancer cells migration and invasion. Effects of control (P4), P5 and P6 peptides on VEGF-C-induced VEGFR-3 activation was analyze by western blot analysis (upper) and the ability of migration and invasion (lower) in HS578T (A), HBL100 (B), MDA-MB-361 (C), MCF-7 (D) and H322 (E) cells. Columns, mean of three independent experiments; bars, SD. ***, $p < 0.001$ statistically significant decrease compared with the corresponding control value.

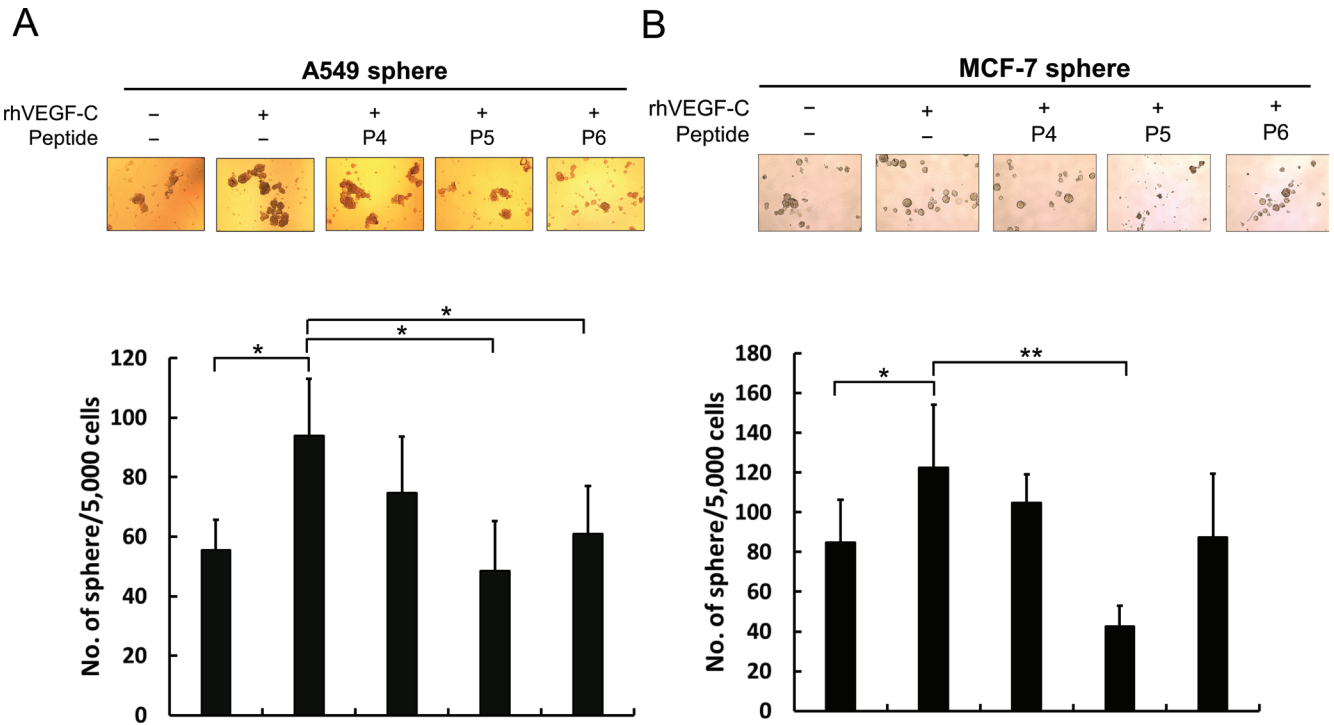


Figure S5: P5 and P6 peptides decrease sphere formation of cancer cells. Effects of control (P4), P5 and P6 peptides on VEGF-C-induced tumor initiating cells (TICs) formation. Sphere-forming assay was performed in A549 (A) and MCF-7 (B) cells treated with indicated peptides and rhVEGF-C. Columns, mean of three independent experiments; bars, SD. *, $p < 0.05$; **, $p < 0.01$ statistically significant decrease compared with the corresponding control value.

A549 sphere

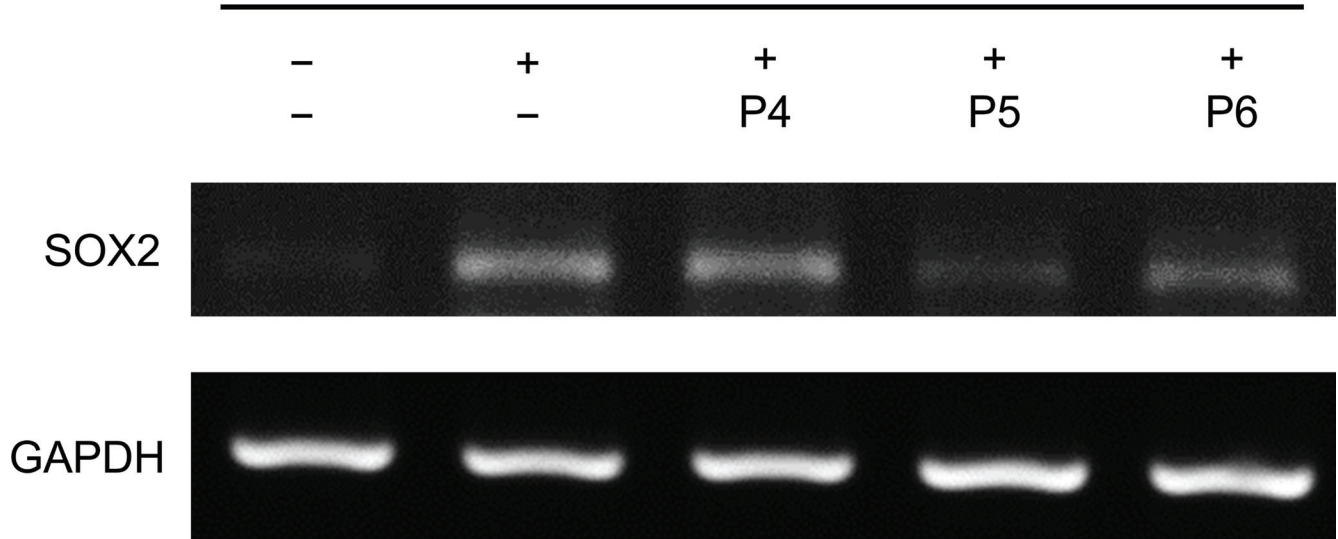


Figure S6: P5 and P6 peptides significantly decrease VEGF-C-induced cancer stem cell marker. Effects of P5 and P6 peptides on mRNA expression of SOX2. Total RNA were harvested for analysis of SOX2 mRNA by RT-PCR.