

Figure S1: Overall survival for the DE miRNAs related to prognosis in KIRC

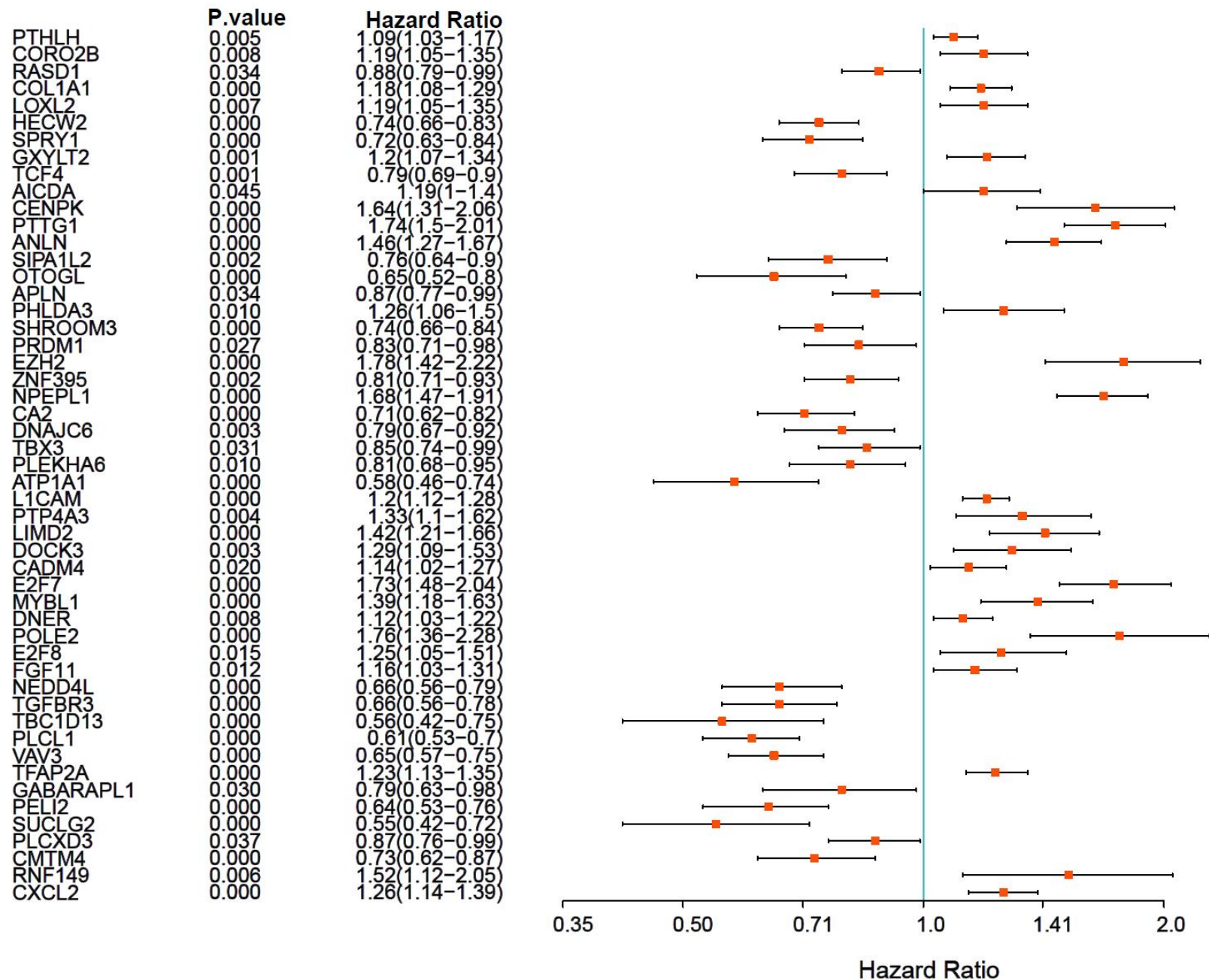


Figure S2: Overall survival for the DE mRNAs related to prognosis in KIRC

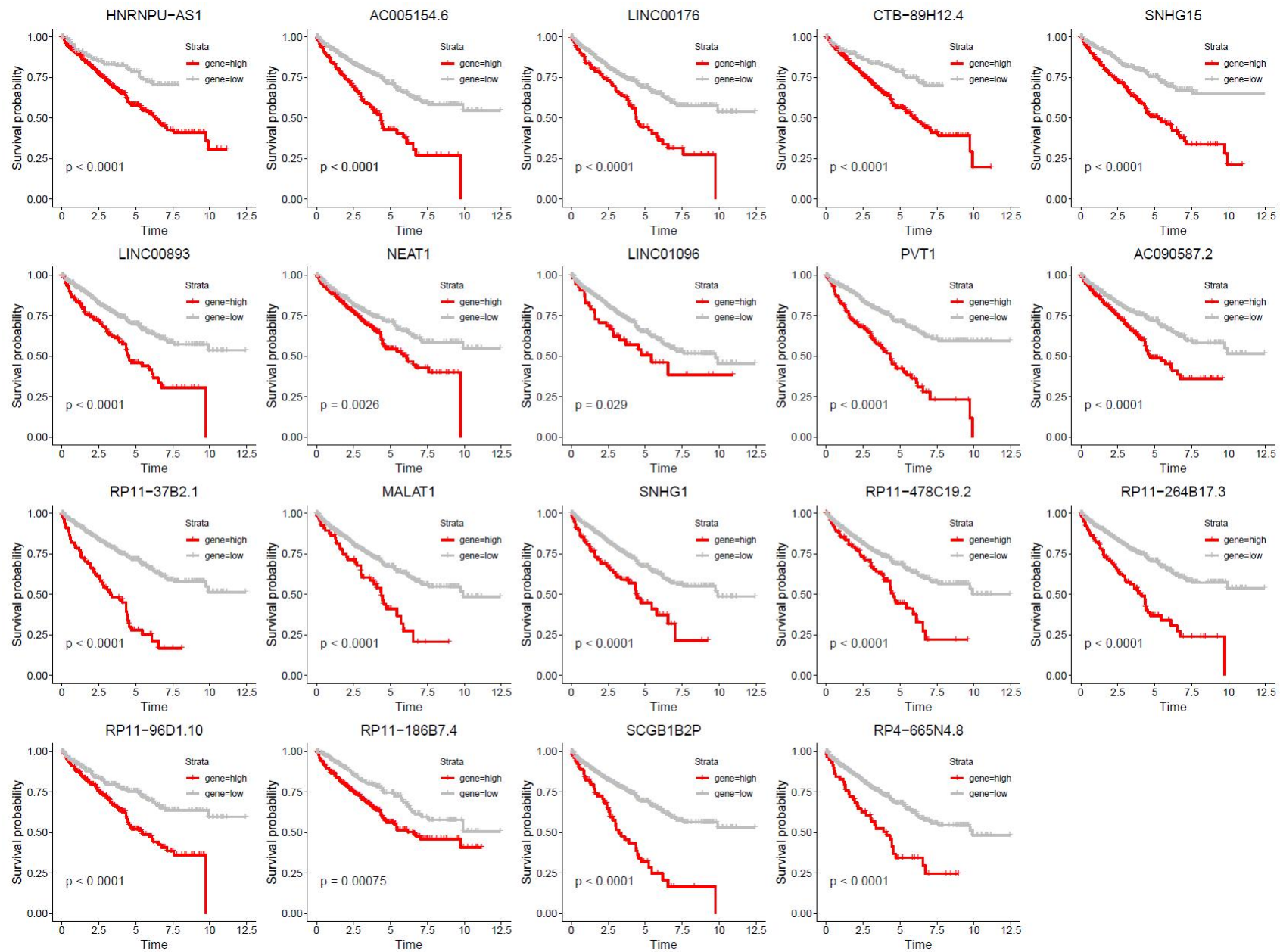


Figure S3: Overall survival for the DElncRNAs related to prognosis in KIRC

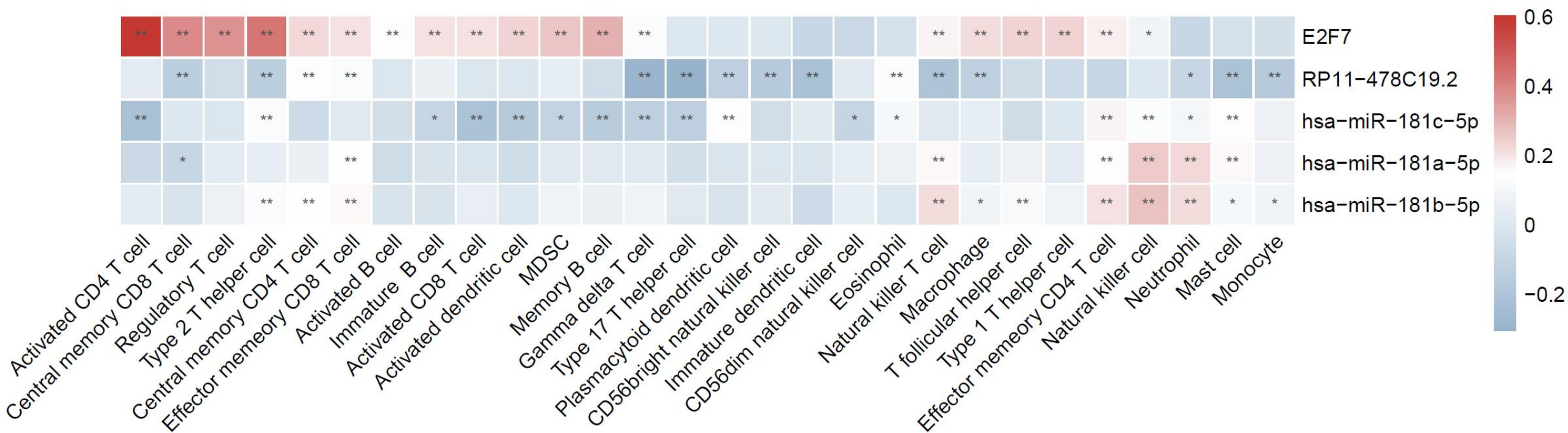
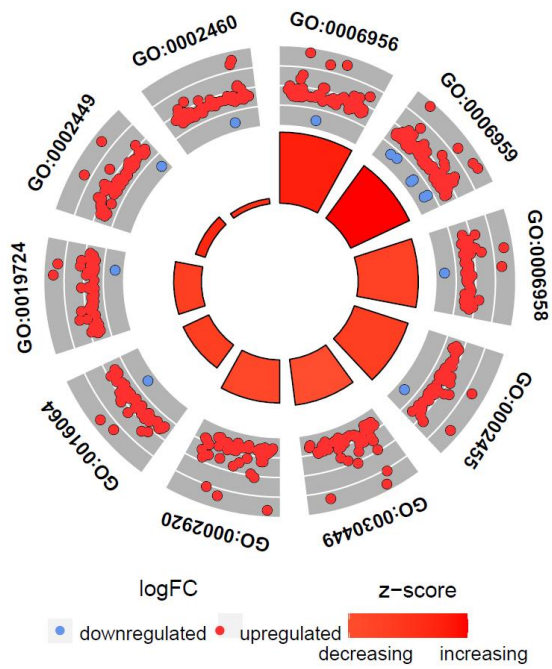
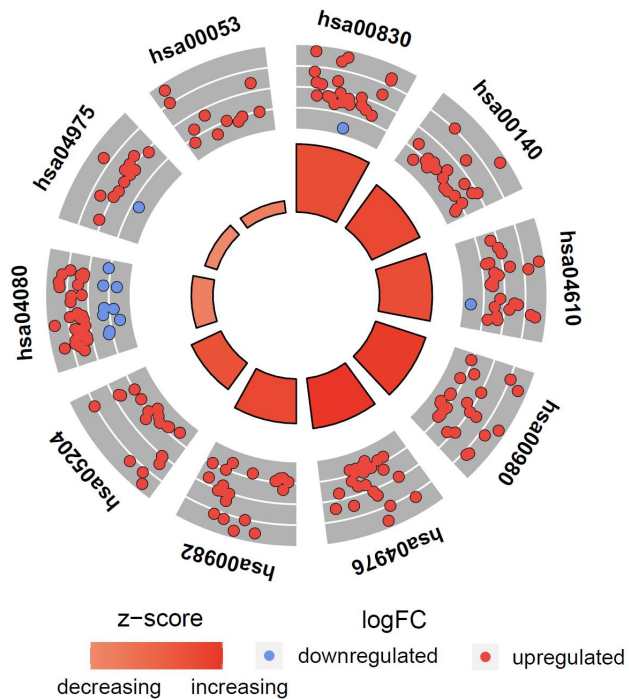


Figure S4: Association between each RNA in the RP11-478C19.2/E2F7 axis and the immune cell infiltration levels. (* $p < 0.05$, ** $p < 0.01$)



ID	Description
GO:0006956	complement activation
GO:0006959	humoral immune response
GO:0006958	complement activation, classical pathway
GO:0002455	humoral immune response mediated by circulating immunoglobulin
GO:0030449	regulation of complement activation
GO:0002920	regulation of humoral immune response
GO:0016064	immunoglobulin mediated immune response
GO:0019724	B cell mediated immunity
GO:0002449	lymphocyte mediated immunity
GO:0002460	adaptive immune response based on somatic recombination of immune receptors built from immunoglobulin superfamily domains



ID	Description
hsa00830	Retinol metabolism
hsa00140	Steroid hormone biosynthesis
hsa04610	Complement and coagulation cascades
hsa00980	Metabolism of xenobiotics by cytochrome P450
hsa04976	Bile secretion
hsa00982	Drug metabolism – cytochrome P450
hsa05204	Chemical carcinogenesis – DNA adducts
hsa04080	Neuroactive ligand–receptor interaction
hsa04975	Fat digestion and absorption
hsa00053	Ascorbate and aldarate metabolism

Figure S5: GO and KEGG analysis of the DEmRNAs of the two clusters.

Pathway Enrichment

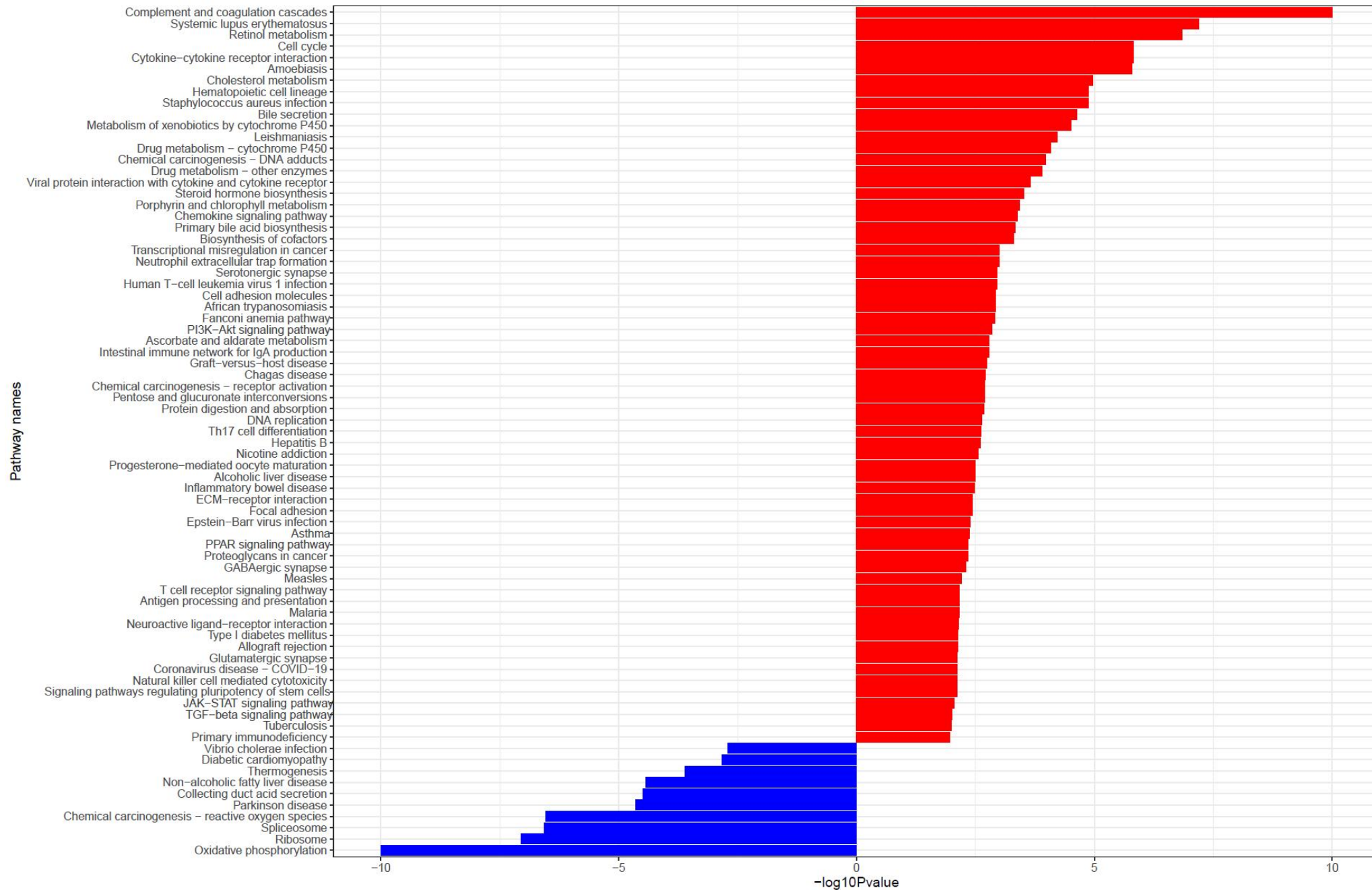


Figure S6: GSEA analysis between E2F7^{high} and E2F7^{low} groups.

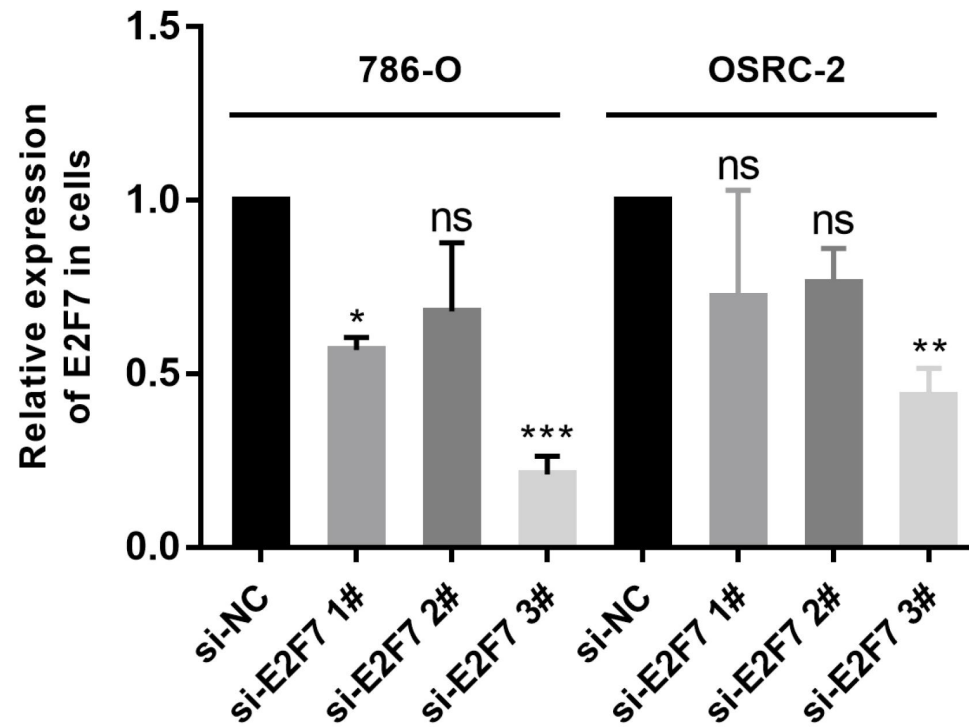


Figure S7: the mRNA expression of E2F7 in OSRC-2 and 786-O cells after siRNA transfection.

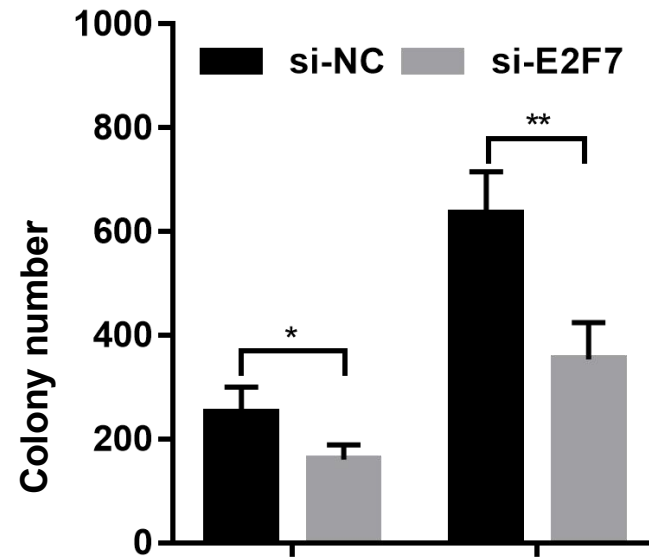
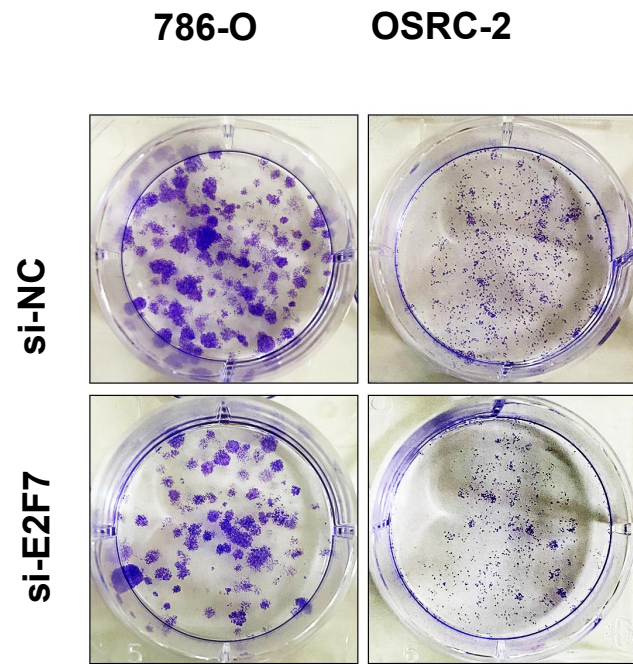


Figure S8: Colony formation assay

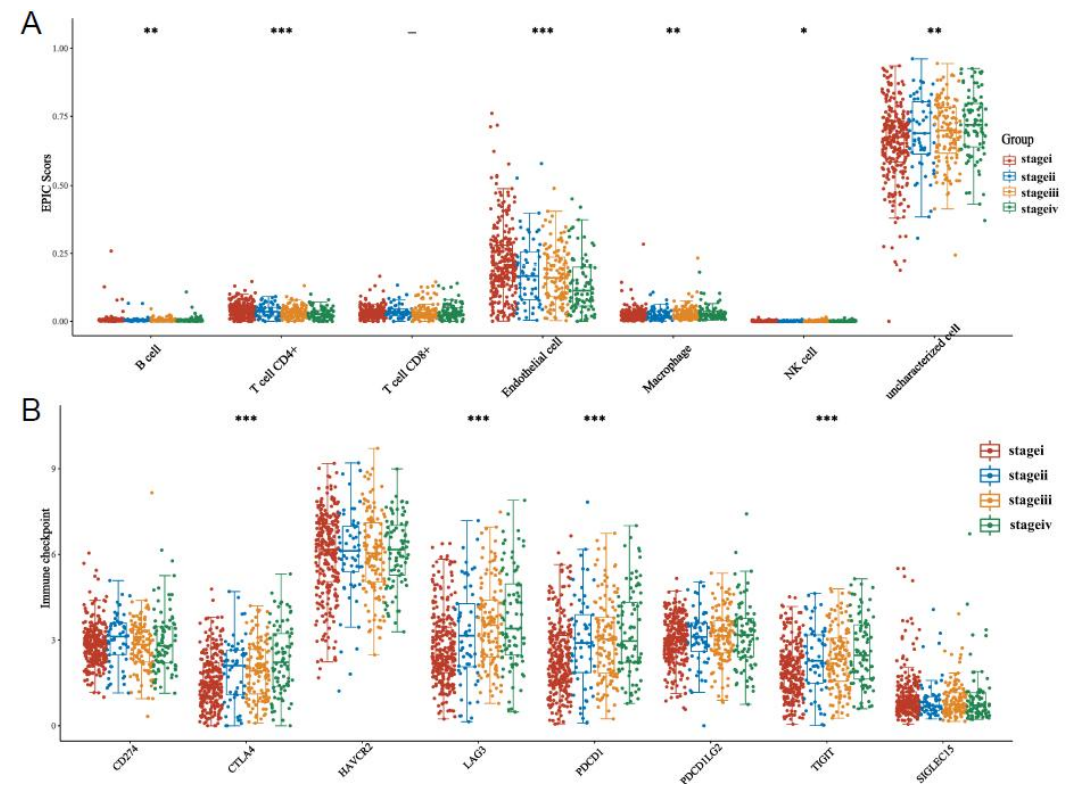
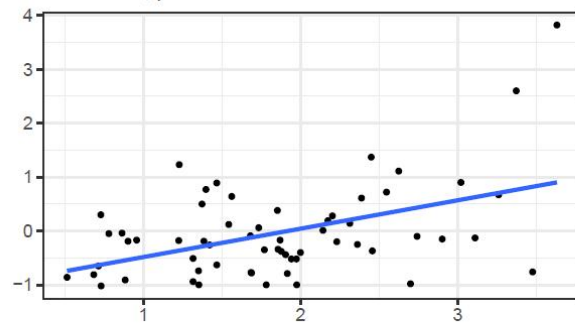


Figure S9: (A) Immune cell infiltration levels in different pathologic stages of KIRC. (B) Expression of immune checkpoint genes in different pathologic stages of KIRC.

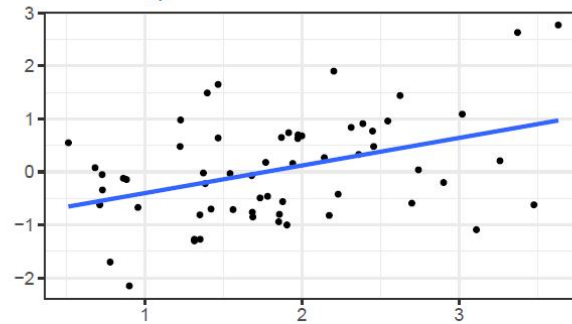
E2F7, JNJ-38877605

Cor=0.459, $p < 0.001$



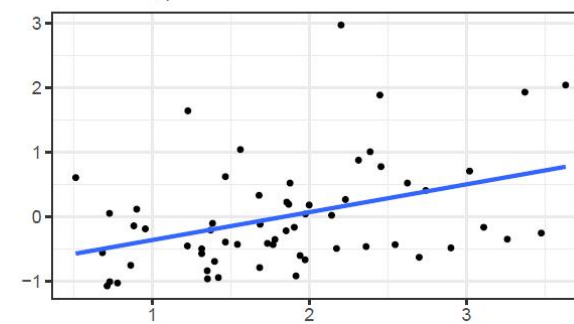
E2F7, AMG-458

Cor=0.402, $p = 0.001$



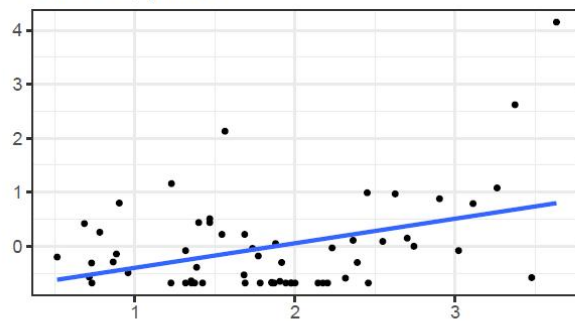
E2F7, Cabozantinib

Cor=0.390, $p = 0.002$



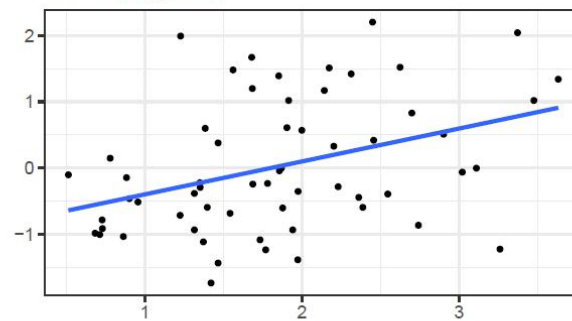
E2F7, SGX-523

Cor=0.382, $p = 0.003$



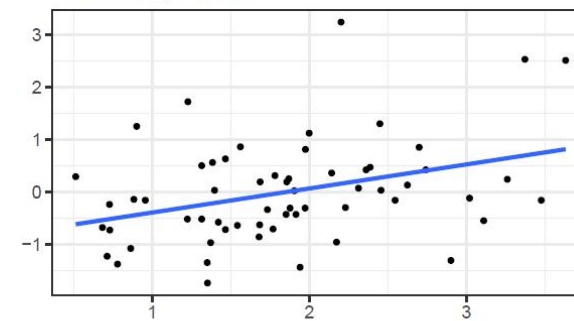
E2F7, AZD-5363

Cor=0.377, $p = 0.003$



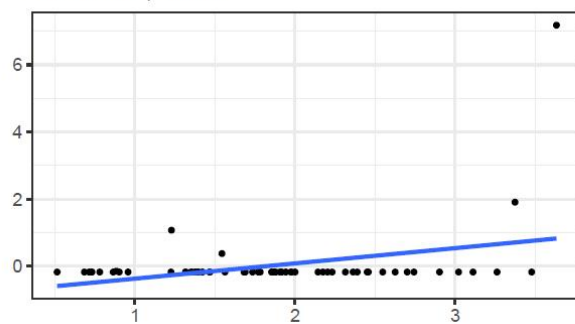
E2F7, BMS-777607

Cor=0.358, $p = 0.005$



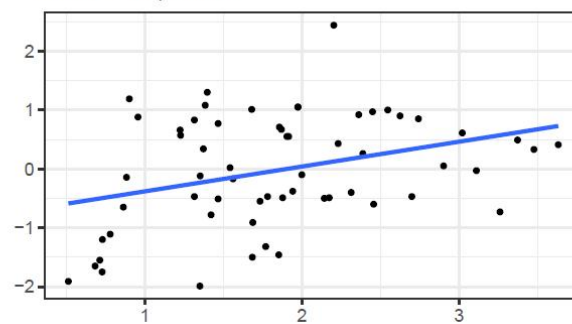
E2F7, PF-04217903

Cor=0.346, $p = 0.007$



E2F7, ENMD-2076

Cor=0.336, $p = 0.009$



E2F7, Quizartinib

Cor=0.308, $p = 0.017$

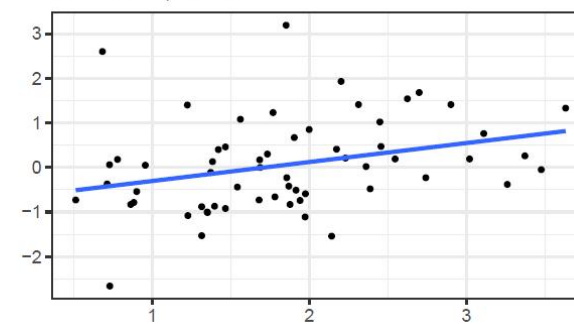


Figure S10: Correlation between drug sensitivity and the expression of E2F7 in KIRC

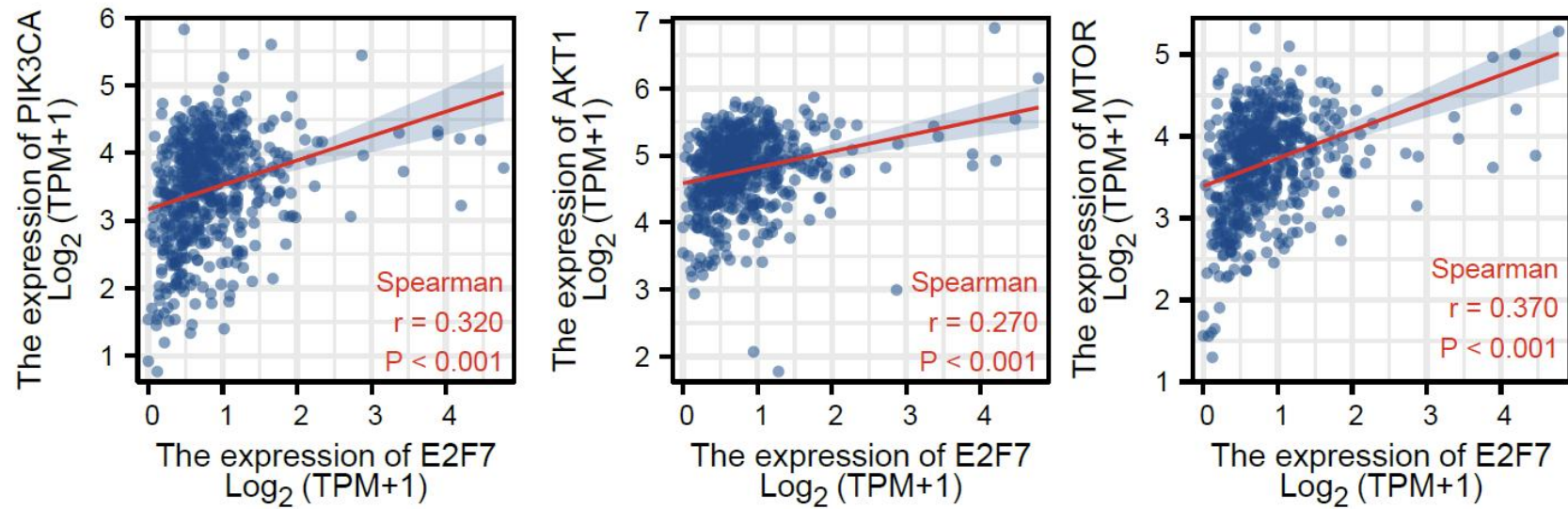


Figure S11: Relationship between E2F7 expression and PI3K/AKT1/mTOR signaling pathway

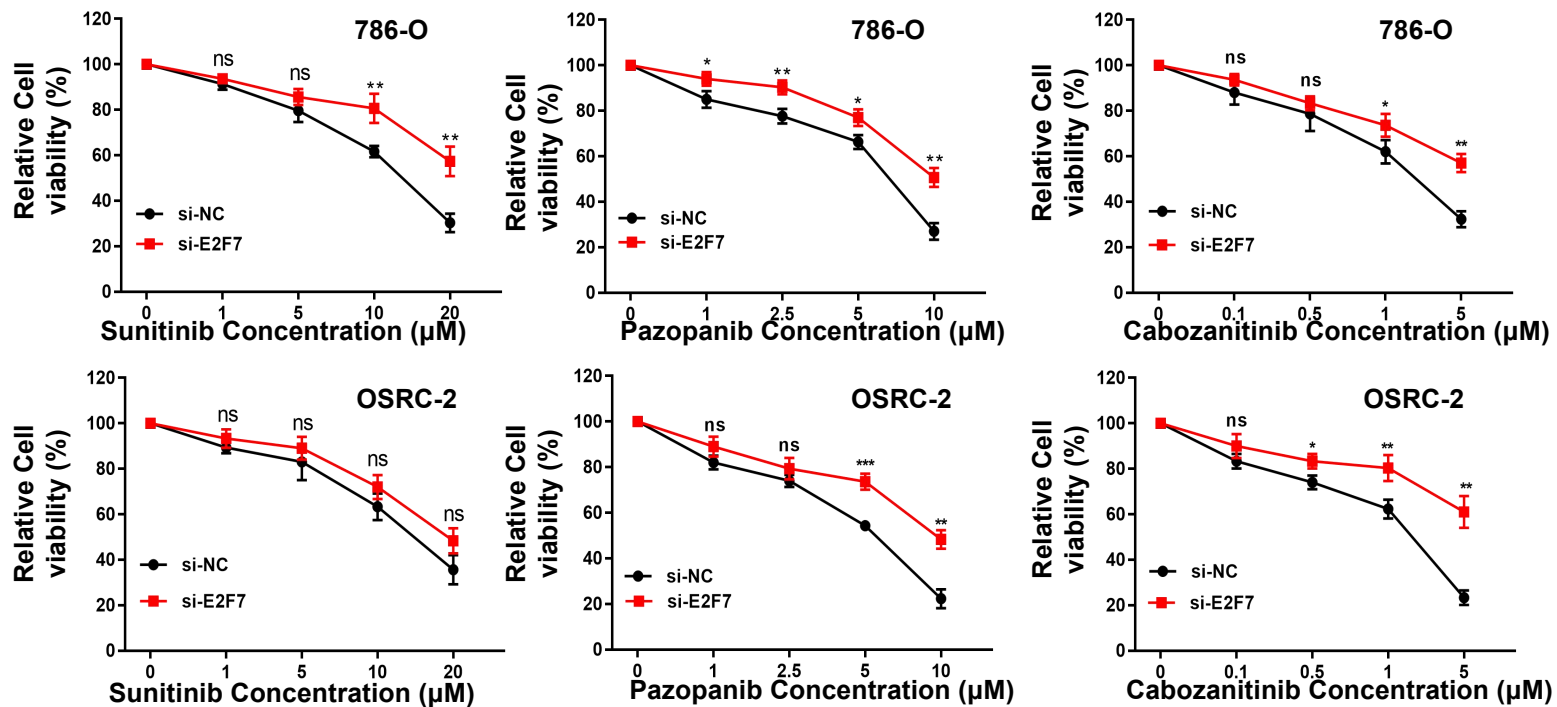


Figure S12: The drug sensitivities of sunitinib, pazopanib, and cabozantinib in 786-O and OSRC-2 cell lines at 48 h after transfection under different concentration. (relative cell viability = $[(At-Ab) / (Ac-Ab)] \times 100\%$; As: absorbance of treatment; Ac: absorbance of control; Ab: absorbance of blank)