

## Running title

**Table S1.** Member genes of the Hallmark E2F Targets pathway gene set

E2F Targets
AK2, ANP32E, ASF1A, ASF1B, ATAD2, AURKA, AURKB, BARD1, BIRC5, BRCA1, BRCA2, BRMS1L, BUB1B, CBX5, CCNB2, CCNE1, CCP110, CDC20, CDC25A, CDC25B, CDCA3, CDCA8, CDK1, CDK4, CDKN1A, CDKN1B, CDKN2A, CDKN2C, CDKN3, CENPE, CENPM, CHEK1, CHEK2, CIT, CKS1B, CKS2, CNOT9, CSE1L, CTCF, CTPS1, DCK, DCLRE1B, DCTPP1, DDX39A, DEK, DEPDC1, DIAPH3, DLGAP5, DNMT1, DONSON, DSCC1, DUT, E2F8, EED, EIF2S1, ESPL1, EXOSC8, EZH2, GINS1, GINS3, GINS4, GSPT1, H2AFX, H2AFZ, HELLS, HMGA1, HMGB2, HMGB3, HMMR, HNRNPD, HUS1, ILF3, ING3, IPO7, JPT1, KIF18B, KIF22, KIF2C, KIF4A, KPNA2, LBR, LIG1, LMNB1, LUC7L3, LYAR, MAD2L1, MCM2, MCM3, MCM4, MCM5, MCM6, MCM7, MELK, MKI67, MLH1, MMS22L, MRE11, MSH2, MTHFD2, MXD3, MYBL2, MYC, NAA38, NAP1L1, NASP, NBN, NCAPD2, NME1, NOLC1, NOP56, NUDT21, NUP107, NUP153, NUP205, ORC2, ORC6, PA2G4, PAICS, PAN2, PCNA, PDS5B, PHF5A, PLK1, PLK4, PMS2, PNN, POLA2, POLD1, POLD2, POLD3, POLE, POLE4, POP7, PPM1D, PPP1R8, PRDX4, PRIM2, PRKDC, PRPS1, PSIP1, PSMC3IP, PTTG1, RACGAP1, RAD1, RAD21, RAD50, RAD51AP1, RAD51C, RAN, RANBP1, RBBP7, RFC1, RFC2, RFC3, RNASEH2A, RPA1, RPA2, RPA3, RRM2, SHMT1, SLBP, SMC1A, SMC3, SMC6, SNRPB, SPAG5, SPC24, SPC25, SRSF1, SRSF2, SSRP1, STAG1, STMN1, SUV39H1, SYNCRIP, TACC3, TBRG4, TCF19, TFRC, TIMELESS, TIPIN, TK1, TMPO, TOP2A, TP53, TRA2B, TRIP13, TUBB, TUBG1, UBE2S, UBE2T, UBR7, UNG, USP1, WDR90, WEE1, XPO1, XRCC6, ZW10

**Table S2.** Top 15 area under the curve (AUC) value of the 184 genes composed of E2F targets gene set in GSE25066 cohort

Gene	AUC
CDCA8	0.78
MELK	0.78
MCM2	0.78
HMMR	0.77
KIF2C	0.77
MCM6	0.76
MKI67	0.76
DEK	0.75
DLGAP5	0.75
KIF18B	0.75
ANP32E	0.75
CDC20	0.75
EZH2	0.75
PLK1	0.74
CDK1	0.74