



**Figure S5. Expression and growth analysis upon *CCND1* or *RB1* loss**

**a.** Immunoblot for Cyclin D1, Cyclin D2 for FaDu, Detroit562 and TC-OKC cells upon *CCND1* knockout.

**b.** Gene expression values 72 hrs post *CCND1* knockdown, relative to control.

**c.** Relative cell viability values based on Alamar Blue assay upon knockout of Control SC1, *CCND1*, *CCND2*, or *CCND1+CCND2* in Detroit562 cells. Average doubling times in hours: SC1: 32.7, *CCND1*: 46.4, *CCND2*: 42.6, *CCND1+CCND2*: 63.6.

**d.** Immunoblot for Cyclin D2 for FaDu, Detroit562, and TC-OKC cells upon *CCND2* knockout.

**e.** Immunoblot for RB1, pRB S780, and B-tubulin for FaDu and Detroit562 cells upon *RB1/RBL1/RBL2* knockout.

**f.** Relative cell viability values based on Alamar Blue assay upon *CCND1* knock-out in *RB1/RBL1/RBL2* knockout Detroit562 cells. Average doubling times in hours; WT/SC1: 33.6, WT/*CCND1*: 40.5, *RB*/SC1: 35.0, *RB*/*CCND1*: 48.7.

**g.** Immunoblot for phosphoRB upon *CCND1* KO in FaDu and Detroit562 cells.

**h.** Running Enrichment Scores of GSEA upon *CCND1* knockout in TC-OKC for the RB\_P130\_DN.V1\_DN (left) and Gene Set and Chicas\_RB1\_targets (right) gene sets.