



**Figure S8. Effects of BUB1B knockdown on in human astrocytes, RasV12 transformed astrocytes, HeLa cells and RPE-1 cells.**

(A) & (B) Knockdown of BUB1B in Ras-transformed human astrocytes phenocopies BUB1B requirement observed in BTICs.

(A) BUB1B knockdown results in growth defects in RasV12-astrocytes but not untransformed astrocytes. Assays were performed as in Figure 2C. \*\* indicates  $p < .001$  by student's t-test. .

(B) Chromosome alignment assays in NHAs and Ras-NHAs as performed in Figure 5E.

(C) Chromosome alignment assays in HeLa cells and RPE-1 cells transfected with siControl or siBUB1B. BUB1B/BUBR1 knockdown results in severe chromosome alignment defects in HeLa cells but not in untransformed RPE-1 cells. Cells were transfected with control or BUB1B/BUBR1 siRNA (Dharmacon) and 48hrs later treated with MG-132 for 2hrs to induce mitotic arrest and stained for BubR1, CREST, Tubulin and/or DAPI. 93% of HeLa cells treated with siBUB1B have severe KT-MT attachment defects ( $n > 100$ ), compared to only 17% for control; while KT-MT attachment was similar regardless of siBUB1B treatment ( $n > 150$ ).