

**Supplementary Figure 2S:** Acute mortality of polyploid cells induced by cytochalasin D. HCT116 cells with the indicated genotype were left untreated or cultured in the presence of cytochalasin D ( $4 \mu\text{M}$ ), followed by staining with Hoechst 33342, DiOC<sub>6</sub>(3) and propidium iodide (PI). **A.** Representative pictograms showing the polyploid cells with a normal DiOC<sub>6</sub>(3) uptake (upper window), as well as polyploid cells with reduced DiOC<sub>6</sub>(3) uptake (lower window). Numbers refer to the percentage of polyploid DiOC<sub>6</sub>(3)<sup>low</sup> cells (considering 100% as the sum of all polyploid cells). **B.** Percentage of polyploid cells among the total population of cells. **C.** Frequency of dying (DiOC<sub>6</sub>(3)<sup>low</sup>) and dead (PI<sup>high</sup>) cells among the polyploid population elicited by cytochalasin D. Values are  $X \pm \text{SEM}$  of three independent experiments. Asterisks refer to significant effects (paired Student t test,  $p < 0.001$ ). **D.** Fate of viable polyploid cells elicited by cytochalasin D. Cells were cultured for 36 h in the absence or presence of cytochalasin D and then stained with Hoechst 33342 and DiOC<sub>6</sub>(3), followed by FACS purification of the euploid (2N) or polyploidy ( $>4\text{N}$ ) DiOC<sub>6</sub>(3)<sup>high</sup> cells (windows in the upper panels). These cells were then cultured for 24 hours and re-analyzed after restaining with Hoechst 33342 and DiOC<sub>6</sub>(3) (lower panels). The percentage of cells with a DiOC<sub>6</sub>(3)<sup>low</sup> phenotype is indicated.