Supplementary figure legend

Supplementary Fig. 1

The localization of Sgo1-GFP to pre-anaphase spindles is abolished in cells lacking the kinase domain of Bub1. An Spc29-RFP fusion construct was used to visualize the spindle poles. The series of images in the lower panel were captured by live-cell imaging and show the spindle recruitment and subsequent removal of Sgo1-GFP over the course of a single mitosis.

Supplementary Fig. 2

A. *IPL1* over-expression cannot rescue the growth defect of *sgo1Δ* or *bub1Δ* tetraploids. B. Alleles of *BIR1* that code for a mutant protein unable to interact with Sli15 (*BIR1*901) or unable to interact with both Sli15 and Ipl1 (*BIR1*931,935) cannot suppress the growth defect of tetraploids lacking either *BUB1* or *SGO1*.

Supplementary Fig. 3

A. Tetraploid cells lacking *SGO1* do not exhibit defects in sister-chromatid cohesion during mitosis, in agreement with previous results in haploid cells. We used tetraploid cells expressing TetR-GFP and marked a single centromere by introducing a TetO array at chromosome IV. Cells were arrested in G1 and in metaphase (M) and scored for the number of distinct GFP foci. B. A mutant Sgo1 protein containing isoleucine instead of arginine in position 51 no longer interacts with the phosphatase PP2A, but it can still partially restore the viability of the *sgo1Δ* tetraploids.

Supplementary Fig. 4

A. The benomyl-sensitivity of cells lacking Cdc55 (a regulatory subunit of the phosphatase PP2A) cannot be suppressed by the over-expression of *BIR1* or *SLI15*. B. Cdc55 is not required for the ability of over-expressed *SGO1* to suppress the benomyl sensitivity of haploid *bub1Δ* cells.

Supplementary Fig. 5

A. Over-expression of *MPS1* on a 2-micron plasmid partially rescues the growth defect of *sgo1Δ* tetraploids. B. Over-expression of *MPS1* on a 2-micron plasmid partially rescues the sensitivity of *sgo1Δ* haploid to benomyl. C. Over-expression of *MPS1* rescues the benomyl sensitivity of the checkpoint-competent haploid strain *bub1ΔK* (lacking the kinase domain) but not the checkpoint-deficient strain *bub1Δ*. 
Supplementary Figure 1, Storchova, Becker et al.
Supplementary Figure 2, Storchova, Becker et al.
Supplementary Figure 3, Storchova, Becker et al.
Supplementary Figure 4, Storchova, Becker et al.
Supplementary Figure 5, Storchova, Becker et al.