Figure S5  Morphology and sexual behavior of *L. scottii* progeny with unbalanced MAT genotypes. (A) Non-haploid progenies derived from the CBS 5930 x CBS 5931. For each strain is shown (from the left to the right) the identification of the MAT genotype by PCR/RFLPs, micrographs of mycelium and teliospores produced in CMA medium, type of hyphae and the abundance of teliospores. Strains #LS044 and #LS066 (MAT A1A2B1B2) are self-sporulating, establishing hyphae with unfused clamps. Strains #LS025 and #LS072, which carry compatible A alleles and only one B allele, are unable to produce teliospores despite producing extensive hyphae. In contrast, strains that harbor compatible B alleles and only one A allele (#LS105 and #LS168) produce incipient hyphae and teliospores, some of which become empty after a few weeks. (B) Self-sporulating strains have unstable phenotypes and genotypes. Growth in YPD and CMA media of #LS105 and #LS066 cells that had been recovered at passage one (left panel, t1) and five (right panel, t5) of the sub-culturing experiment (successive passages in nutrient-rich YPD medium). These strains underwent a transition to a self-sterile phenotype after five passages as observed by loss of sexual development in CMA medium and concomitant change in their respective MAT genotypes.