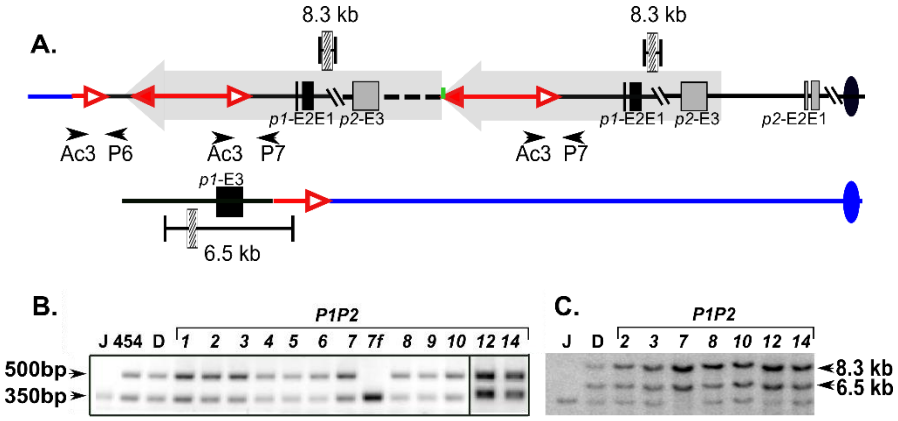

Figure S1. Evidence that the *P1P2* alleles contain tandem direct duplications. **A.** Schematic structures of duplications and *P1P2* fusion alleles on chromosome 1-10 and reciprocal translocation chromosome 10-1. Bracketed segments indicate *Hind*III fragments. Hatched boxes represent the positions of *p1* probe fragment *15*. Black arrowheads indicate positions of PCR primers. **B.** Gel profiles of PCR products from *fAc/Ac* junctions. Primers Ac3 + P6 + P7 were used in the same PCR reaction to amplify both junctions of *fAc* and *Ac* with their flanking sequences. 500 bp bands (upper row) were generated by primers Ac3+ P7 from *Ac* junctions; and 300 bp bands (lower row) were generated by primers Ac3+ P6 from *fAc* junctions. Alleles *p1-ovov454* (454) and *p1-vvD103* (D) have a single copy of each junction and exhibit similar intensities of the 500 bp and 350 bp bands. The *P1P2* alleles generally show higher intensity 500 bp bands compared to the 300 bp bands, indicating an increased copy number of *Ac* flanking sequences as predicted by the duplication model. **C.** DNA gel blot analysis of *P1P2* alleles digested with *Hind*III and hybridized with *p1* probe fragment *15*. Compared to *p1-vvD103* (D), the *P1P2* alleles show a higher intensity of 8.3 kb bands compared to the 6.5 kb band, indicating an increased copy number of the *p1* upstream sequences as predicted by the duplication model.

Lanes in B and C: J: *p1-ww*[4Co63]; 454: *P1-ovov454*; D: *p-vvD103*. Bands of *P1P2*-12 and *P1P2*-14 are from a separate gel.