A segment of 21.4 kb is found on the left arm of chromosome 15 and at the right arm of chromosome 7. 3.3 kb of this segment are also found near the subtelomeric region on chromosome 16. The large duplication encompasses 6 genes (um03120, um03121, um03122, um10637, w155um021, and c156um021 on chromosome 7) of which five can be implicated in cell wall biosynthesis (glucan synthase, glucan binding protein, ß-1,3 exoglucanase). Regions labeled in red refer to the WGS assembly (http://www.broad.mit.edu/annotation/fungi/ustilago_maydis/), regions labeled in blue are absent from the WGS assembly and are found in the map-based sequencing assembly only. The genes deduced from the map-based assembly (available as Bayer_chromosomes.fasta from http://www.broad.mit.edu/annotation/genome/ustilago_maydis/Downloads.html) refer to the following positions in the chromosomal contigs: w155um021: VII_b, pos. 565494 to 570702; c156um021: VII_b, pos. 571368 to 573511; W160um021: VII_b, pos. 575851 to 576963; W165um021: VII_b, pos. 578910 to 581599; C170um021: VII_b, pos. 582765 to 584184; W1um068: XV, pos. 710 to 1859; W2um068: XV, pos. 2114 to 2850; C5um068: XV, pos. 5000 to 8726; C10um068: XV, Pos. 10049 to 13475; W15um068: XV, pos. 14346 to 15620.