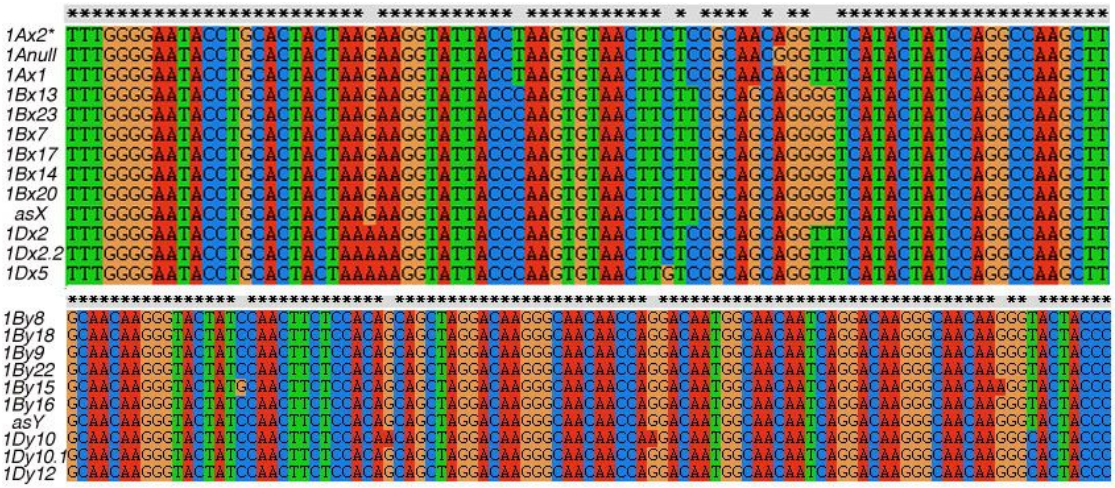

Additional file 2:Nucleotide sequence alignment of the *asX* or the *asY* with their corresponding elements in other x-type (upper region) or y-type (lower region) *HMW-GS* genes expressed in the wheat variety, respectively; *asX* and *asY* represent sequences highly homologous to most of all x-type or y-type *HMW-GS* genes, respectively. Nucleotides conserved in all sequences are represented by '*'. The alignment was conducted using the Clustal W program.