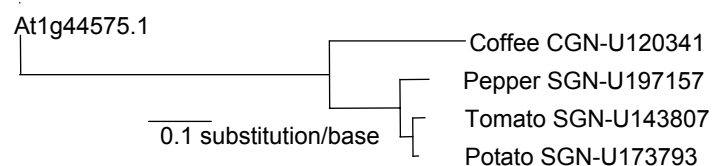
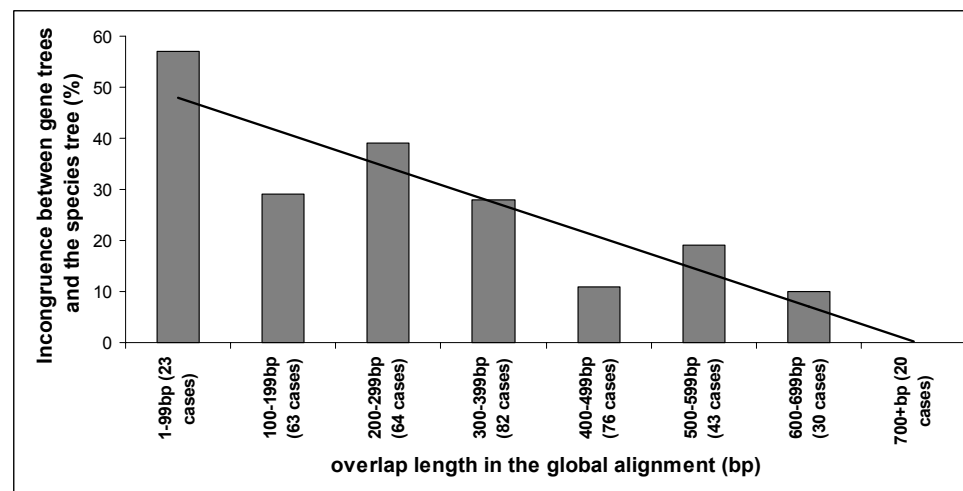


Figure S1. Verification of COSII Gene Orthology Using Phylogenetics. (A) An example where a COSII gene tree is congruent with the species tree, thus validating orthology. (B) Plot depicting the relationship between the percentage of cases for which COSII genes trees do not match the known species tree against the average length of overlapping sequences in global alignments of COSII members which were used to reconstruct the gene trees

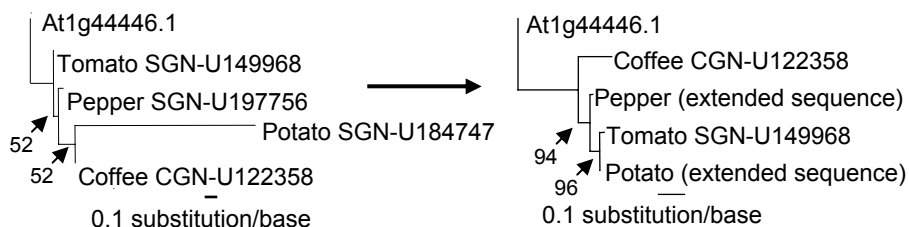
A



B



C



D

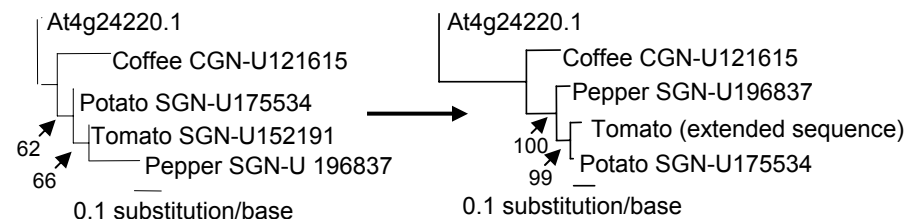
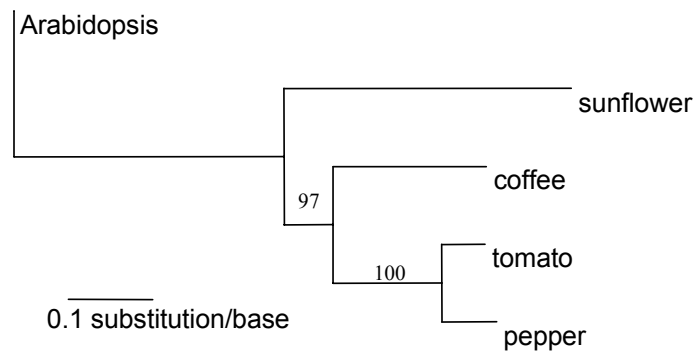
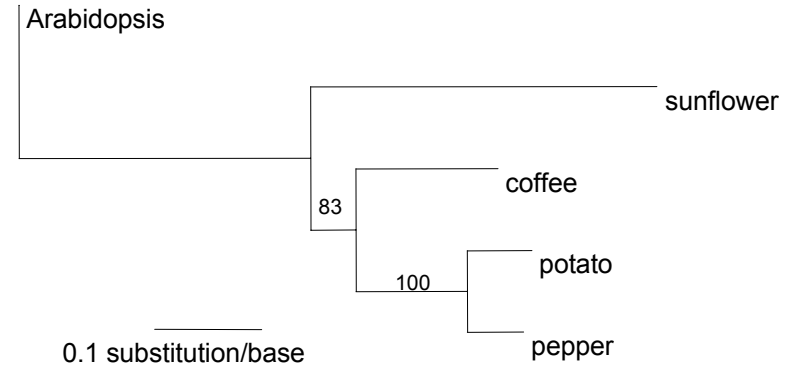


Figure S2. Phylogenetic trees of COSII Genes including Sunflower and/or Lettuce members

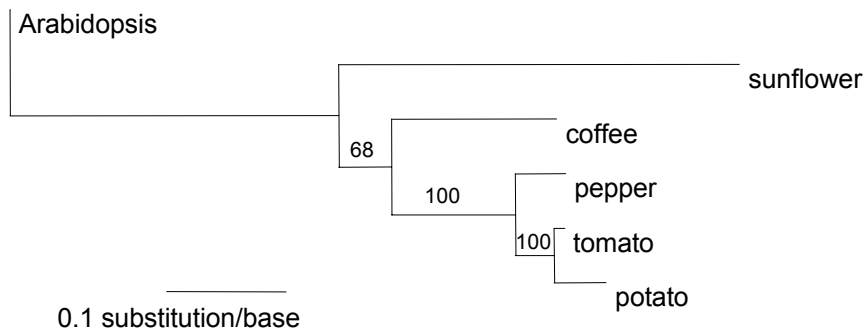
Based on concatenated data of 17 COSII genes, 4752bp



Based on concatenated data of 16cases, 3930bp



Based on concatenated data of 12 COSII genes, 2793bp



Based on concatenated data of 16 cases, 5067bp

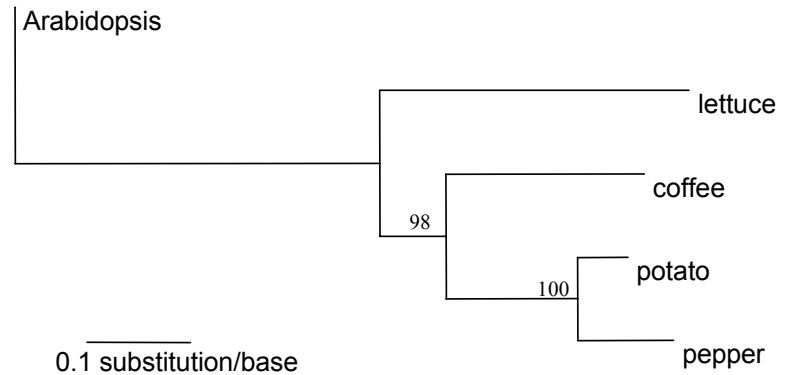
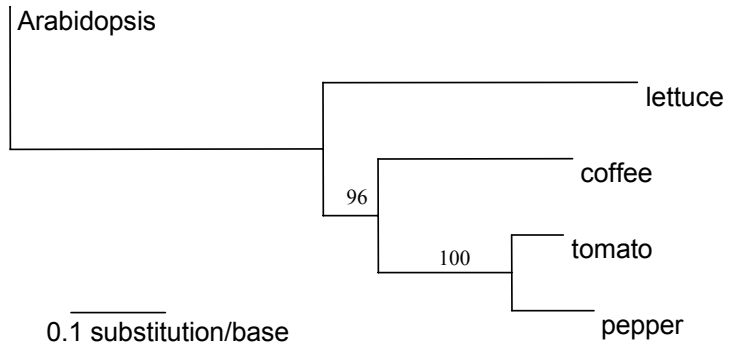


Figure S2. (continued)

Based on concatenated data of 16 cases, 5367bp



Based on concatenated data of 14 cases, 4671bp

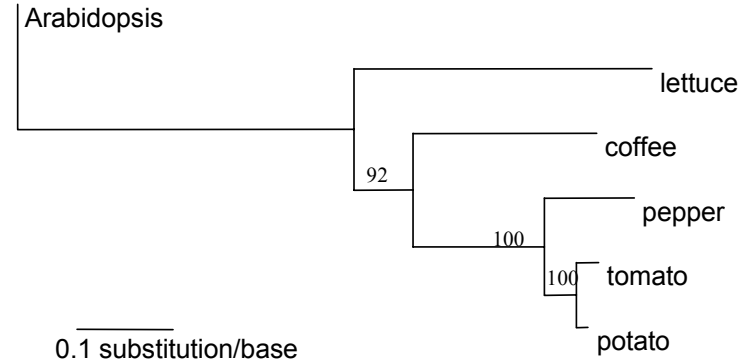
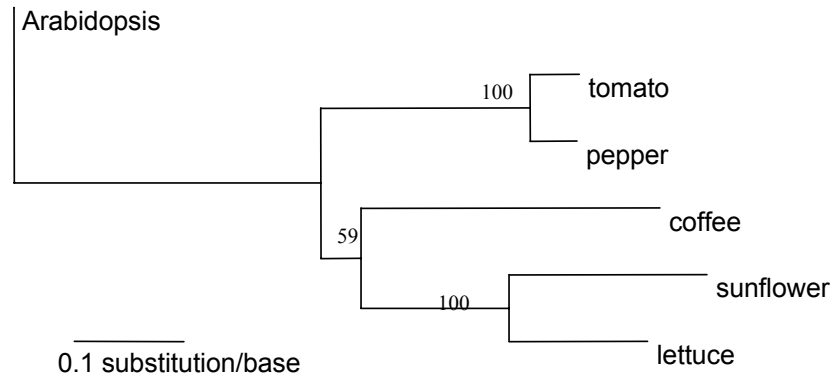


Figure S2. (continued)

Based on concatenated data of 2 COSII genes, 849bp



Based on C2_At5g61970, 255bp

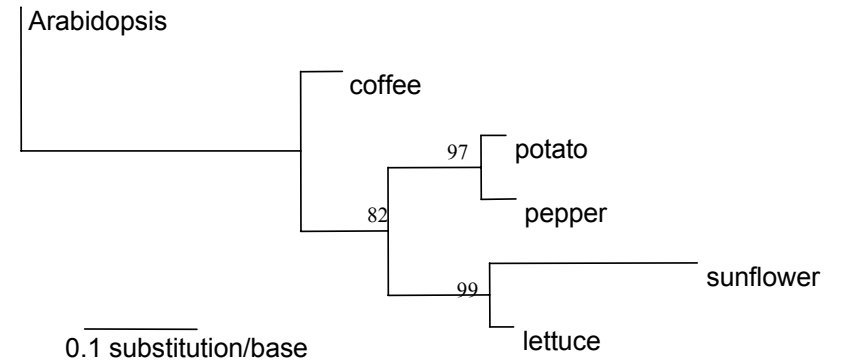
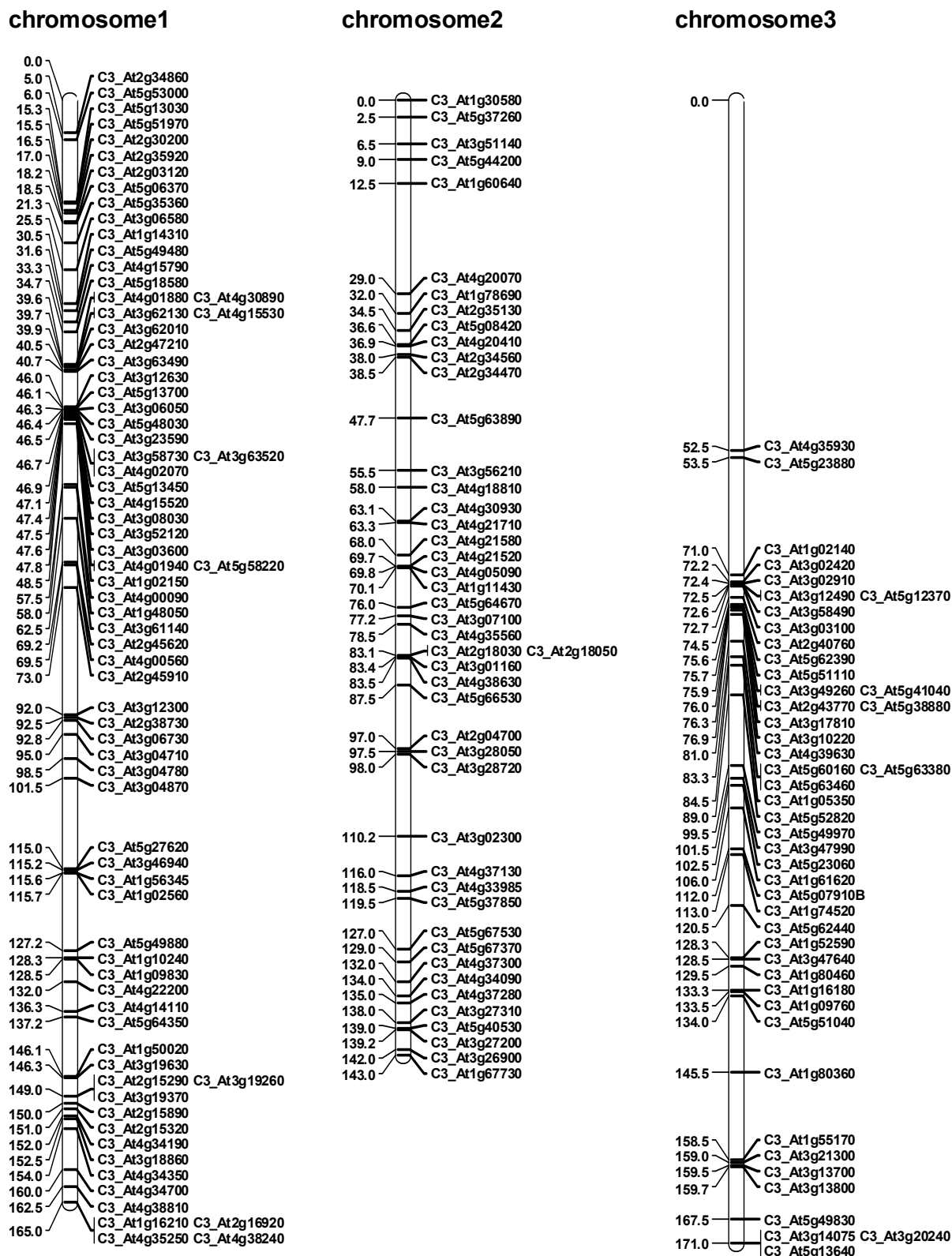
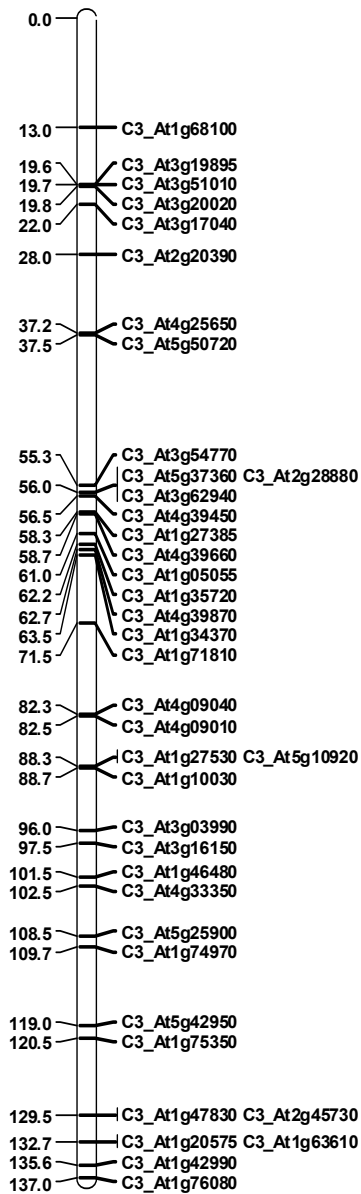


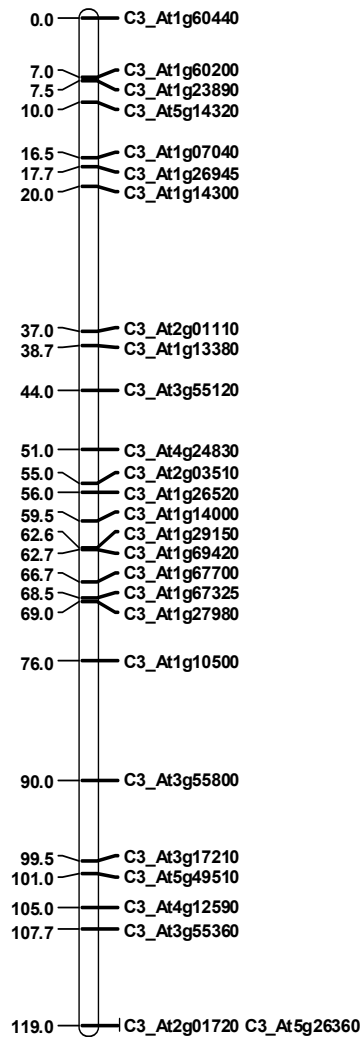
Figure S3 – Distribution of COSII Genes on the Tomato Genetic Map. Map units (cM) are on the left and marker names are on the right.



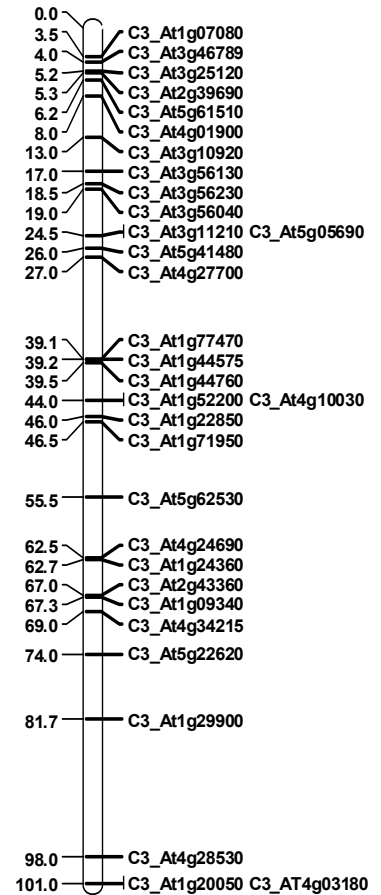
chromosome4



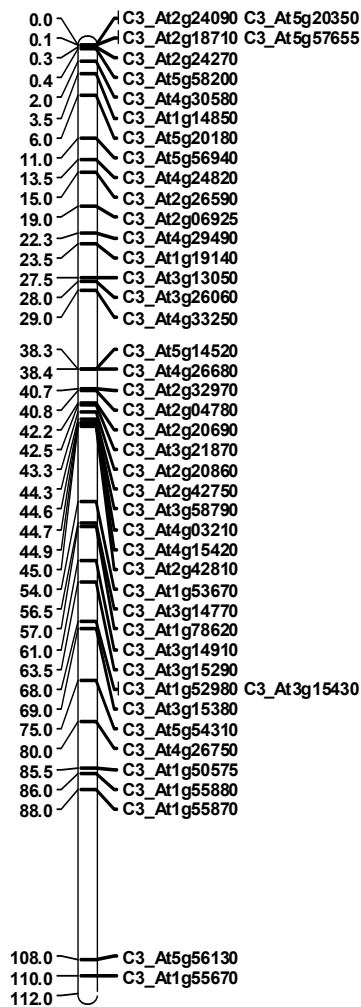
chromosome5



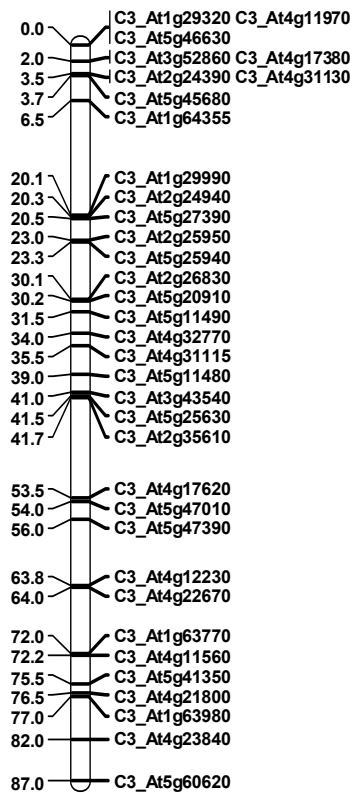
chromosome6



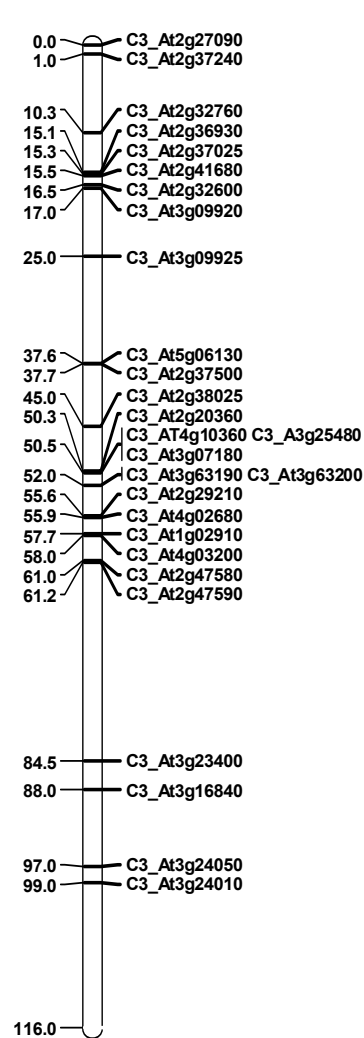
chromosome7



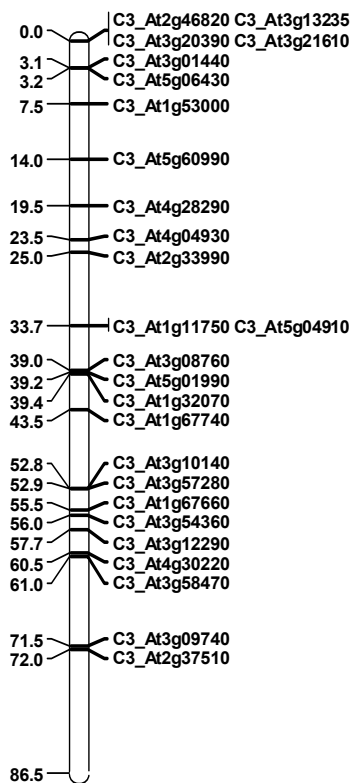
chromosome8



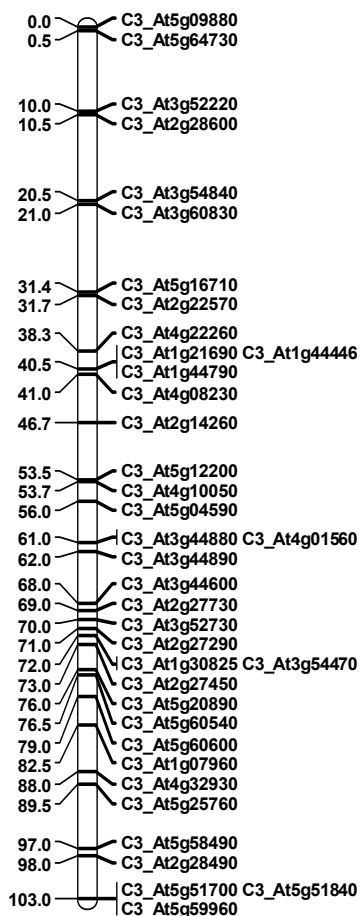
chromosome9



chromosome10



chromosome11



chromosome12

