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과제 일련번호: 20

Flowering time genes in Brassica genome

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About 100 genes are known to related to flower and flowering time in Arabidopsis of which genome sequence is completely sequenced recently. To understand and characterize flowering in the Brassica crops, we have isolated several major flowering time genes and selected BAC clones containing FCA, AGL20, SVP, VRN1, CO and LFY. The copy number of containing FCA, AGL20, SVP, VRN1, CO and LFY gene on the genome of Chinese cabbage was confirmed by genomic Southern blot analysis. TwoBAC clones harboring LFY gene were sequenced and compared with the homeologous region of Arabidopsis. Sequence collinearity and homology of the homeologous sequence revealed that chromosome duplication and rearrangement were indeed taken place in the Chinese cabbage during evolution. We also localized the homeologous segments of Arabidopsis on *B. rapa* ssp. pekinensischromosomes by BAC-FISH.

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