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**Expression analysis of Chinese cabbage over-expressed StEREBP subjected to various hormones and stresses****Hye-Eun Lee, Jong-Pil Hong, Jinhee Kim, Eun Su Lee and Do-Sun Kim**

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Ethylene responsive element binding protein (EREBP) is a major group of the AP2/ERF family and plays significant roles in the regulation of abiotic and biotic stress responses. StEREBP is cloned from potato (*Solanum tuberosum* L.) and characterized to response in abiotic stress and hormone regulation. In this research, we constructed Chinese cabbage StEREBP overexpressing plants using the *Agrobacterium*-mediated transformation. Six transgenic plants are confirmed the T-DNA insertion by Southern blot analysis and RT-PCR analysis. Phenotype of transgenic plants is not different compared with control plant. The reverse transcription PCR (RT-PCR) showed that cold stress and ABA related genes are increased but ethylene related genes are decreased in StEREBP overexpressing Chinese cabbage plants. The StEREBP responded to abiotic factors and hormones suggested that they possibly had diverse roles in stress and hormone regulation of Chinese cabbage.

**Biography**

Hye-Eun Lee is conducting the research on the development of molecular marker in various vegetables. I work at the National Horticultural Science Institute in South Korea, and now I study about analysis of gene expression using Chinese cabbage and construction of genetic population and linkage genetic map related to agronomic traits in onion.

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