

Expression analysis of Chinese cabbage over-expressed StEREBP subjected to various hormones and stresses

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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 respond 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.