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Transformation of Chinese cabbage with Jasmonic Acid Carboxyl Methyl- transferase (JMT)-encoding Gene using *Agrobacterium tumefaciens*

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Objectives

Methyl jasmonate is a plant volatile that acts as an important cellular regulator mediating diverse developmental processes and defense responses. Transgenic Chinese cabbage plants were successfully obtained from hypocotyl explants inoculated with *Agrobacterium tumefaciens*, which harbored a binary vector plasmid with JMT gene, catalyzed the formation of methyl jasmonate from jasmonic acid.

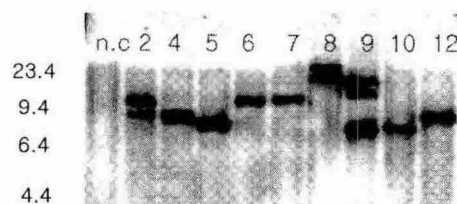
Material and Methods

Hypocotyls of the Chinese cabbage inbred lines were inoculated

with *Agrobacterium* strain LBA4404 harboring JMT gene and cultured with mannose selection.

Results and Discussion

1. Integration of the JMT gene into genome was confirmed by Southern blot analysis. The results showed that at least one or two copies of JMT gene were integrated into Chinese cabbage genome.
2. Over 30 transgenic Chinese cabbage plants were obtained.
3. In the future, T1 progeny of transgenic Chinese cabbage plants will be tested to plant defenseresponse by pathogen infection.



Southern blot