



Production of transgenic kiwifruit plants harboring the *SbtCry1Ac* gene

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Genet. Mol. Res. 14 (3): 8483-8489 (2015)
Received December 5, 2014
Accepted April 28, 2015
Published July 28, 2015
DOI <http://dx.doi.org/10.4238/2015.July.28.16>

ABSTRACT. The kiwifruit (*Actinidia chinensis* Planch.) is an economically and nutritionally important fruit crop that has a remarkably high vitamin C content and is popular throughout the world. However, kiwifruit plants are vulnerable to attack from pests, and effective pest control is urgently required. Transgenic kiwifruit plants containing the synthetic chimeric gene *SbtCry1Ac* that encodes the insecticidal protein btCry1Ac were obtained through an *Agrobacterium*-mediated transformation of kiwifruit leaf discs. The kanamycin resistance of the transgenic plants was then analyzed. Results from polymerase chain reactions and genomic DNA Southern blot analyses indicated that *SbtCry1Ac* had been integrated into the genomes of these plants. The results of insect bioassays revealed that the average *Oraesia excavate* inhibition rate of plants tested at 10 days post-infestation was 75.2%. To our knowledge, this is the first study that has developed insect-resistant transgenic kiwifruit plants.

Key words: *Actinidia chinensis*; *Sbtcry1Ac*; Insect-resistant; Transgenic plant