Adeno-associated virus *rep78* Expression in *Arabidopsis thaliana*

by

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(Abstract)

Adeno-associated virus type 2 (AAV-2) integrates preferentially into a defined site on human chromosome 19, and has been developed as a gene therapy vector. We propose to use this unique recombination event for site-specific integration of transgenes in plants. This strategy would alleviate problems associated with current plant transformation methods that integrate transgenes randomly. The AAV-2 gene encoding the enzyme that catalyzes the insertion (*rep78*) was introduced into *Arabidopsis thaliana* via *Agrobacterium*-mediated transformation. PCR and sequence analysis confirmed the presence of *rep78* in two plant lines. RT-PCR demonstrated *rep78* transcription in one plant line, but protein could not be detected in either line.

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