



## A minimal DNA cassette as a vector for genetic transformation of soybean (*Glycine max*)

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**ABSTRACT.** Currently, the market demands products committed to protecting human health and the environment, known as clean products. We developed a protocol using DNA fragments containing only the gene sequence of interest, to replace the circular vectors containing genes for antibiotic resistance and other undesirable sequences, for obtaining transgenic soybeans for microparticle bombardment. Vector pAC321 was digested with the restriction enzyme *PvuII* to produce the 6159 bp *ahas* fragment, which contains the mutated *ahas* gene from *Arabidopsis thaliana* (Brassicaceae), under the control of its own promoter and terminator. This gene confers resistance against imazapyr, a herbicidal molecule of the imidazolinone class, capable of systemically translocating and concentrating in the apical meristematic region of the plant, the same region used for the introduction of the transgenes. This fragment was used to generate 10 putative transgenic soybean lines.

**Key words:** Biolistic; Gene transfer; Minimal cassette; Transformation with DNA fragment; Transgenic soybean