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Agrobacterium-mediated transformation in sweetpotato

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Objectives

The goals of our research are establishment of stable and efficient *Agrobacterium*-mediated transformation system of sweetpotato (*Ipomoea batatas* L.).

Materials and Methods

Material: Sweetpotato (*Ipomoea batatas* L.) cv. Yulmi

Agrobacterium tumefaciens strain LBA4404/pCAMBIA2301

Methods:

Calli maintenance: N6 medium (2mg/L 2,4-D)

Infection: N6 medium (2mg/L 2,4-D) supplemented with 100 μM acetosyringone

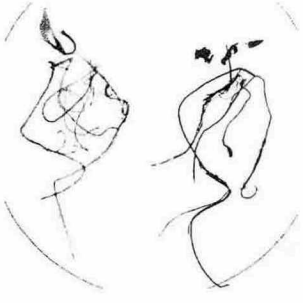
Selection: N6 medium (2mg/L 2,4-D) with 100 mg/L kanamycin or 20mg/L G418, 300mg/L cefotaxime

Shooting: MS medium with 0.1mg/L BA, 300mg/L cefotaxime, 20mg/L G418

Rooting: 1/2 MS

Results and Discussion

We could get 20 plants from 7 months procedure. Among them 16 lines were stained with GUS histochemical assay. These lines were confirmed by genomicPCR and southern blot analysis. RNA and protein expression levels will be checked. These lines will be transplanted on soil and grown in a greenhouse.



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