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형질전환 캘러스와 식물체에서의 재조합 hepatitis A virus VP1의 발현과 면역원성

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Expression and immunogenicity of recombinant hepatitis A virus VP1 in transgenic calli and plants

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Objective

Hepatitis A is transmitted via the fecal-oral route. Infection usually causes clinical hepatitis in adults and school-aged children. Production of recombinant hepatitis A virus (HAV) epitopes in transgenic edible plants can be a novel source of developing functional food materials against hepatitis A virus infection.

Materials and Methods

Materials - Microtom, other plant source
Methods - Plant tissue culture, plant transformation, DNA preparation, RNA extraction, genomic DNA PCR, RT-PCR, Western blotting

Results and Discussion

In this study, we investigated the expression and immunogenicity of recombinant HAV VP1 in transgenic calli and plants. Explants of plant seedlings were transformed with recombinant *Agrobacterium tumefacience* harboring pCAMBIA-HAV VP1. The integration of the HAV VP1 gene was confirmed by genomic DNA PCR. The expression of the HAV VP1 gene was also examined by RT-PCR and western blot analysis. We are currently investigating the immunogenicity of recombinant HAV VP1 in transgenic calli and plants.

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