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Vector construction for RNA interference using male determinant self-incompatibility gene, *SP11 / SCR* in Brassica

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Objectives

We constructed six transformation vectors for SP11 gene silencing by RNA interference in Brassica, also constructed four transformation vectors for GUS assays.

Materials and Methods

1. Material

Plant *Brassica rapa* (cv. Osome), *Brassiaa oleracea* (cv. Cabbage)

Agrobacterium strain LBA105/pBI101 and pBI121

2. Methods

PCR, Cloning, Transformation, Sequence

Results and Discussion

In other to we constructed four transformation vectors for breeding of Brassica with an acquired self-compatibility of SP11 gene silencing by RNA interference, SP11S9 and SP11S60 promoter::RNAi SP11S52 and RNAi SP11S60. *Agrobacterium tumefaciens* strain EHA105 carrying a binary vector pBI101, which contains kanamycin and hygromycin resistance genes and the GUS reporter gene, And we also constructed two transformation vectors for *Brassica oleracea*, SP11S9promoter::RNAi SP11S13 and SP11S60promoter::RNAi SP11S2, *A. tumefaciens* strain EHA105 carrying a binary vector pBI121, which contains kanamycin resistance genes and the GUS reporter gene. Inspection of the promoter type revealed the presence of several motifs important for the regulation of the gene expression. We also constructed four transformation vectors for GUS assays.

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