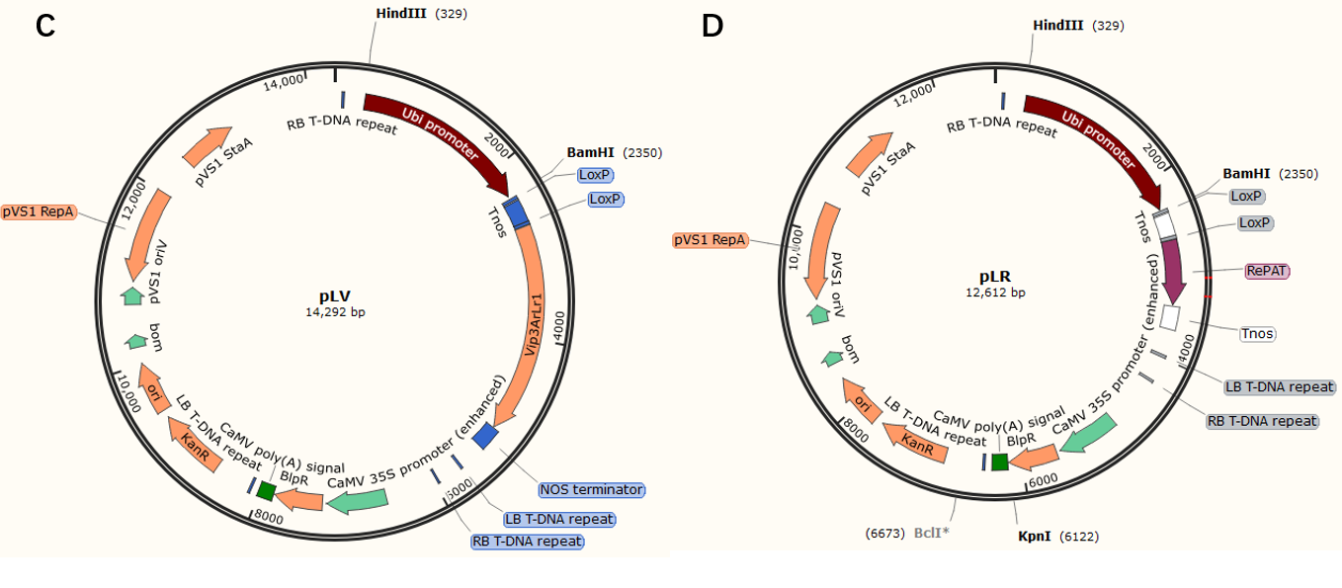
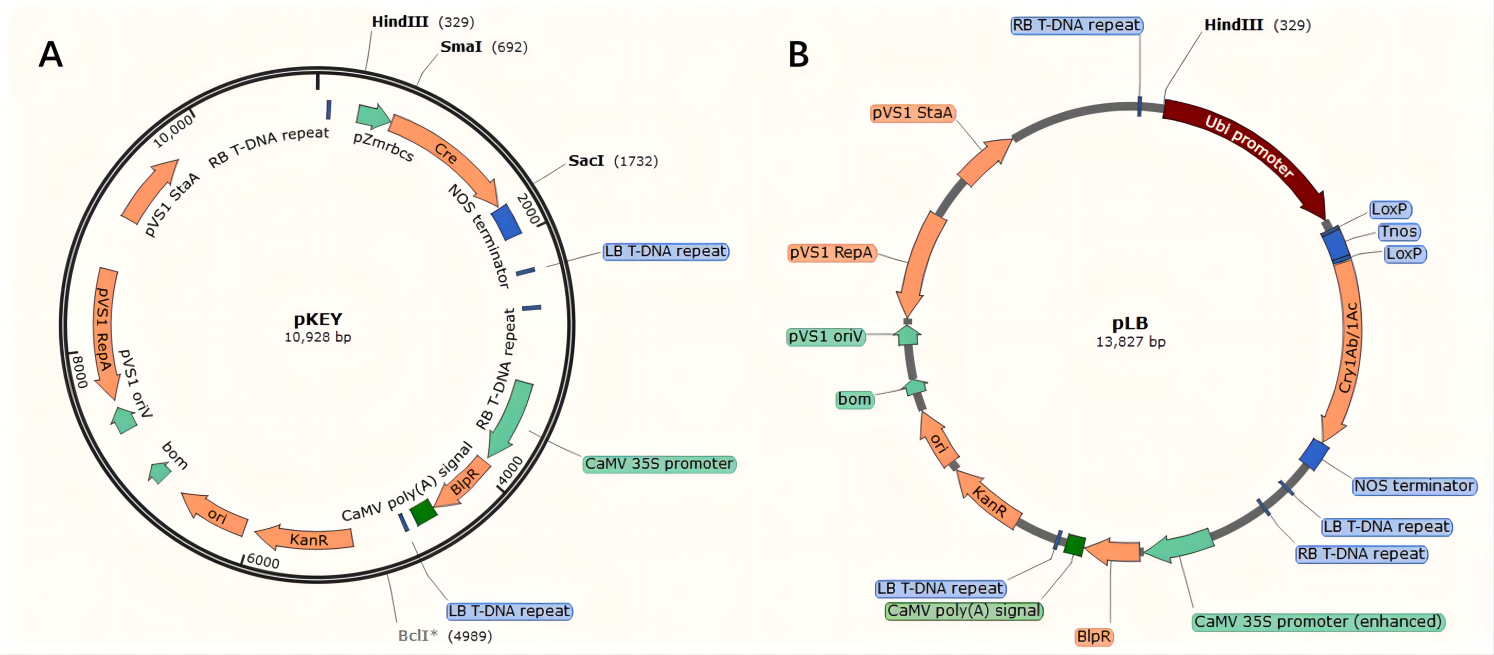
# Supplementary Materials

**Table S1.** Primers used for transgenes identification

|  |  |  |
| --- | --- | --- |
| **Genes** | **Forward primer** | **Reverse primer** |
| *Zm1rbcS* | ACGACGGTGAAACGAAGGAA | GTTCGAACGCTAGAGCCTGT |
| *Cre* | atttgcctgcattaccggtc | tcagaaaacgcctggcgatc |
| *Vip3A* | ATTTGCTTGGTACTGTTTCTTTTGTCGA | GATGCCGTTGAAGTAGTCGATGAA |
| *18S rRNA* | CTGAGAAACGGCTACCACA | CCCAAGGTCCAACTACGAG |

# Supplementary Fig. S1

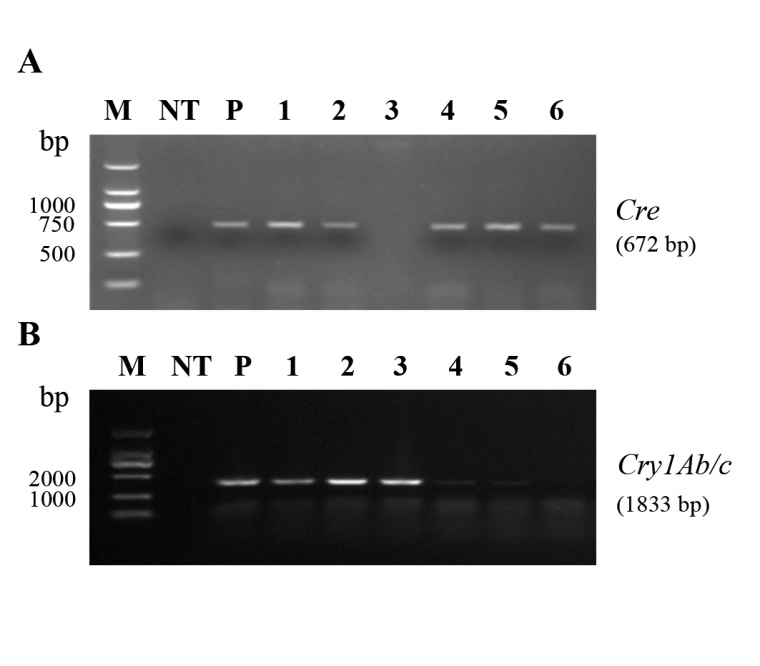


**a**

**b**

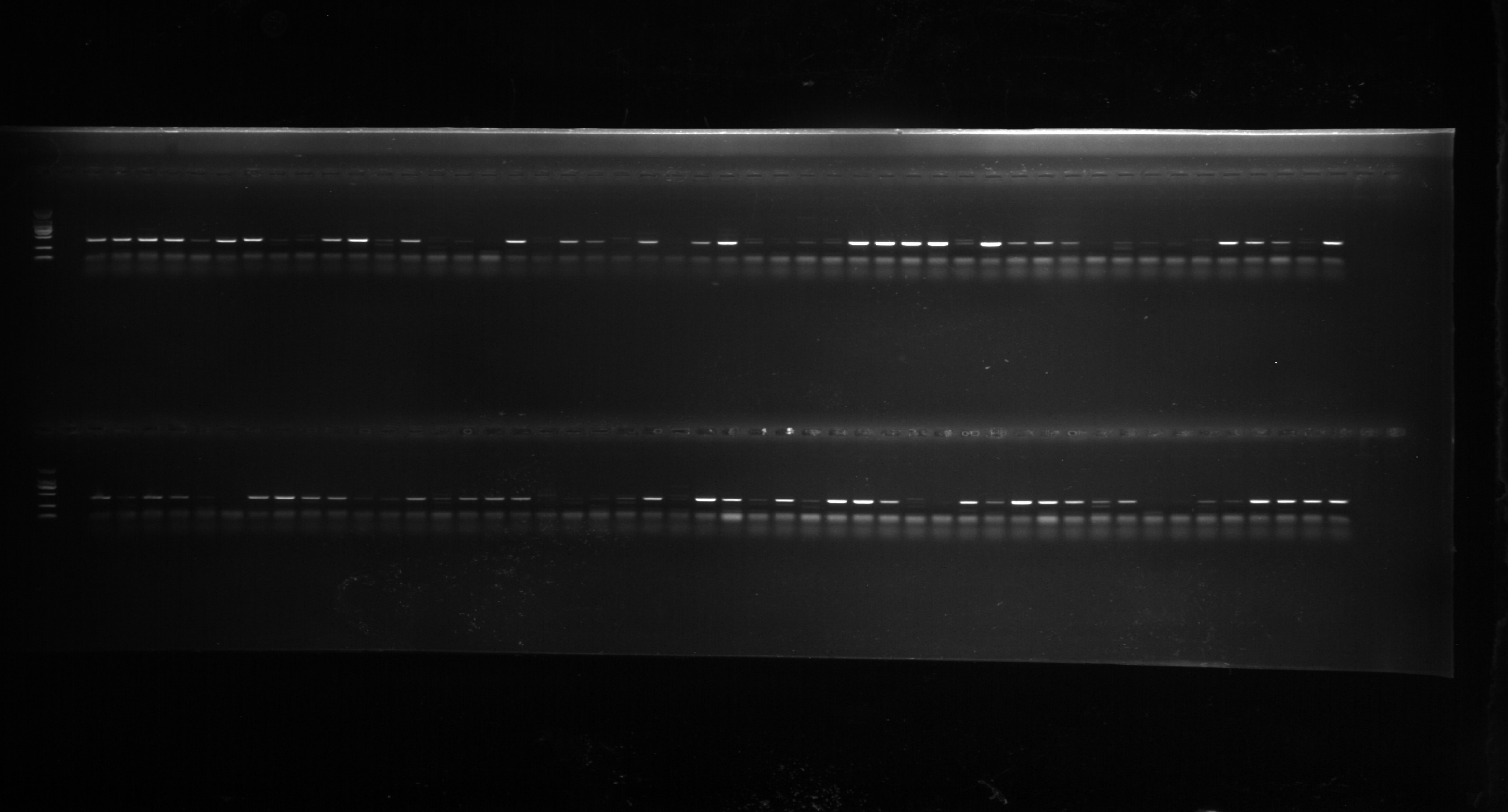
**Supplementary Fig. S1.** Fusion gene cassettes pKEY and pLOCK were constructed in the Cre/loxP-mediated system. (a) The pKEY vector. The green tissue-specific promoter *Zm1rbcS* was cloned in front of the Cre recombinase gene tagged with the nuclear localization sequence (NLS) of *Arabidopsis Krp2* to trigger the recombination expressing in green tissues. (b) The pLOCK vector. The pLOCK cassette was constructed with the strong constitutive promoter *ZmUbi* following a *Nos* terminator which was embedded into two *loxP* sites as a lock to block the expression of the *Vip3A* gene. The plant binary vector pCAMBIA3300 was used as basic plasmid. The *hygromycin B phosphotransferase* (*HPT*) gene in pCAMBIA3300 was served as a selectable marker for transformation.

**Supplementary Fig. S2**

****

bp

M NT P 1 2 3 4 5 6

****

*Vip*

(2361bp)

2500

**Supplementary Fig. S2.** Photographs of transgenes with PCR products obtained on T2 transgenic maize plants. (Above) The *Cre* gene was present in individual KEY transgenic plants. (Below) The *Vip3A* gene was present in individual LOCK transgenic plants. Lane M represents DNA ladder as a size marker. NT indicates non-transgenic plants KN5585. P indicates control plasmid. Lanes 1-6 represent PCR products of individual transgenic T2 maize plants.