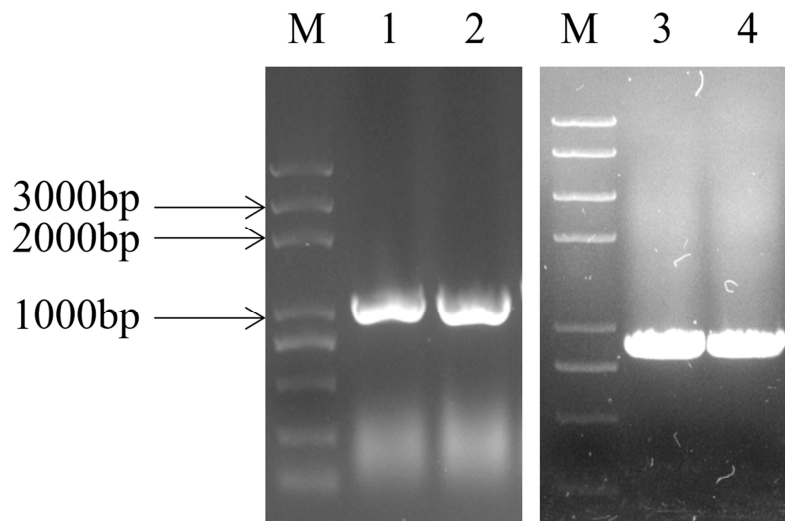
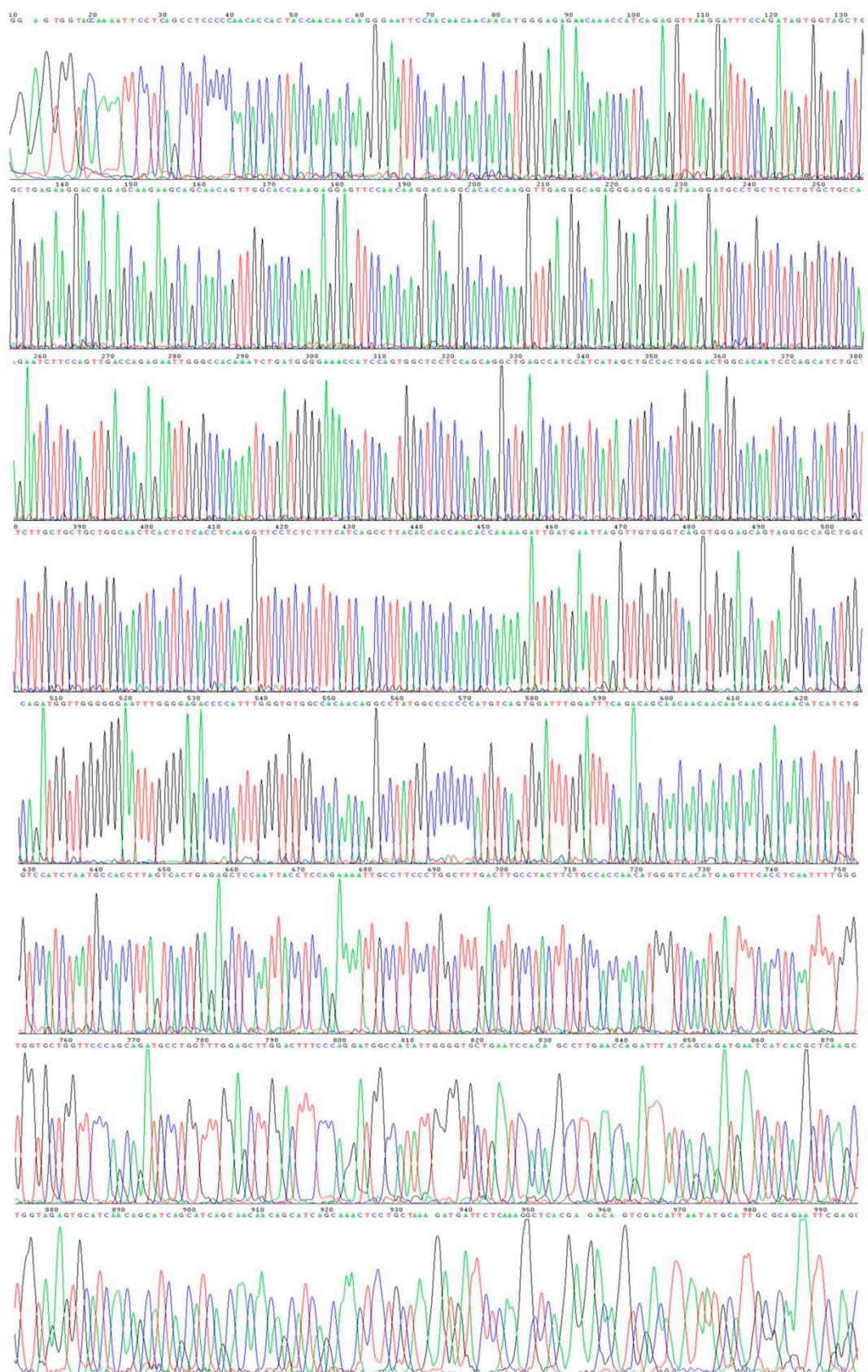


Table S1 Primers for this research

CRISPR-TCP-F	GGATTGTGCTGTTGATGGATC CCAA	pSOY1-TCP-F	ATGGATCCCAAGGGCTCAAAGCA
CRISPR-TCP-R	AAACTTGGGATCCATCAACA GCACA	pSOY1-TCP-R	CTACTGTCCTCCTGAGCCTTGAGA ATCA
CRISPR-NLP-F	GGATTGCTAATATCGCCACCG CCGAG	pSOY1-NLP-F	ATGGAGAAGGGTAGAACCGTGGT GG
CRISPR-NLP-R	AAACCTCGGCGGTGGCGATAT TAGCA	pSOY1-NLP-R	TCATTGGACGGGATTGTTGCCAT
Crispr-F	ggcgggaaacgacaatctgatc	TCP-pro-F	gtacccggggatcctctagaCCAAGTCTCGA AAAGCGTCCA
qRT-TCP-F	CTGAGATCGGTTTGTGTTTGTG A	TCP-pro-R	taccctcagatctaccatggCAACAGCACAC AAAAGAAAAGAGG
qRT-TCP-R	TAACTTGCAAGTGATGTTCC AC	pCAMBIA F	CCATGGTAGATCTGAGGGTAAATT T
qRT-NLP-F	CGAGGCAACAAGGAAACAAT AA	pCAMBIA R	TCTAGAGGATCCCCGGGTACC
qRT-NLP-R	TGAATCAGAATGATGTTTCGC AC	qRT-UNK1-R	GGTGGAAGGAACTGCTAACAAT
qRT-UNK1-F	TGGTGCTGCCGCTATTTACTG		

Figure S1. PCR analysis of *pSOY1-Glyma.19G095300*, *pSOY1-Glyma.12G185700* recombinant vector for plant expression.

Note: M: Trans 2K Plus DNA marker; 1, 2: *Glyma.19G095300* (pSOY1-TCP-F/R); 3, 4: *Glyma.12G185700* (pSOY1-NLP-F/R)



expression with forward-specific primer.

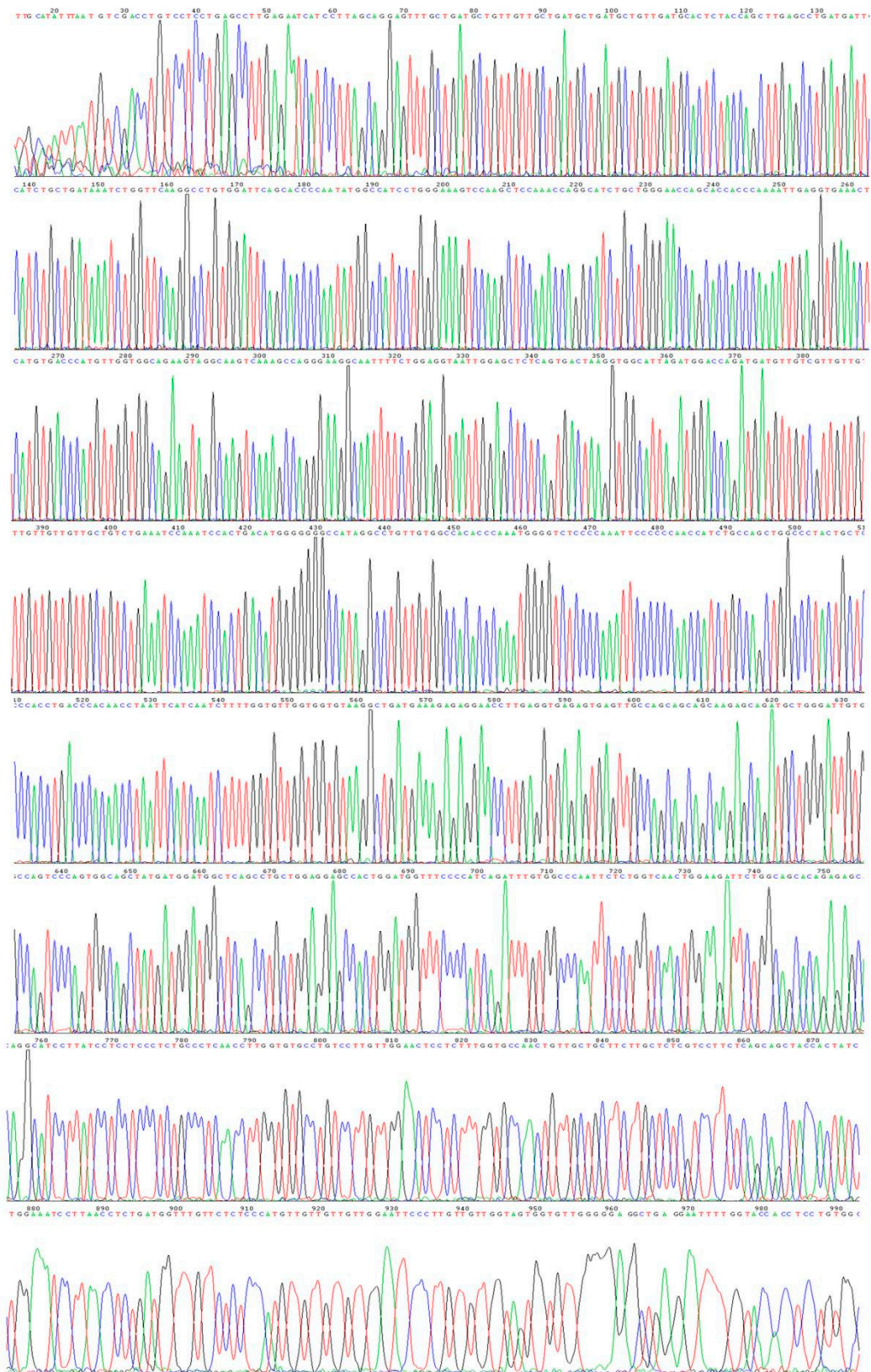


Figure S3. Sequencing of target gene from *pSOY1-Glyma.19G095300* recombinant vector for plant expression with reverse-specific primer.

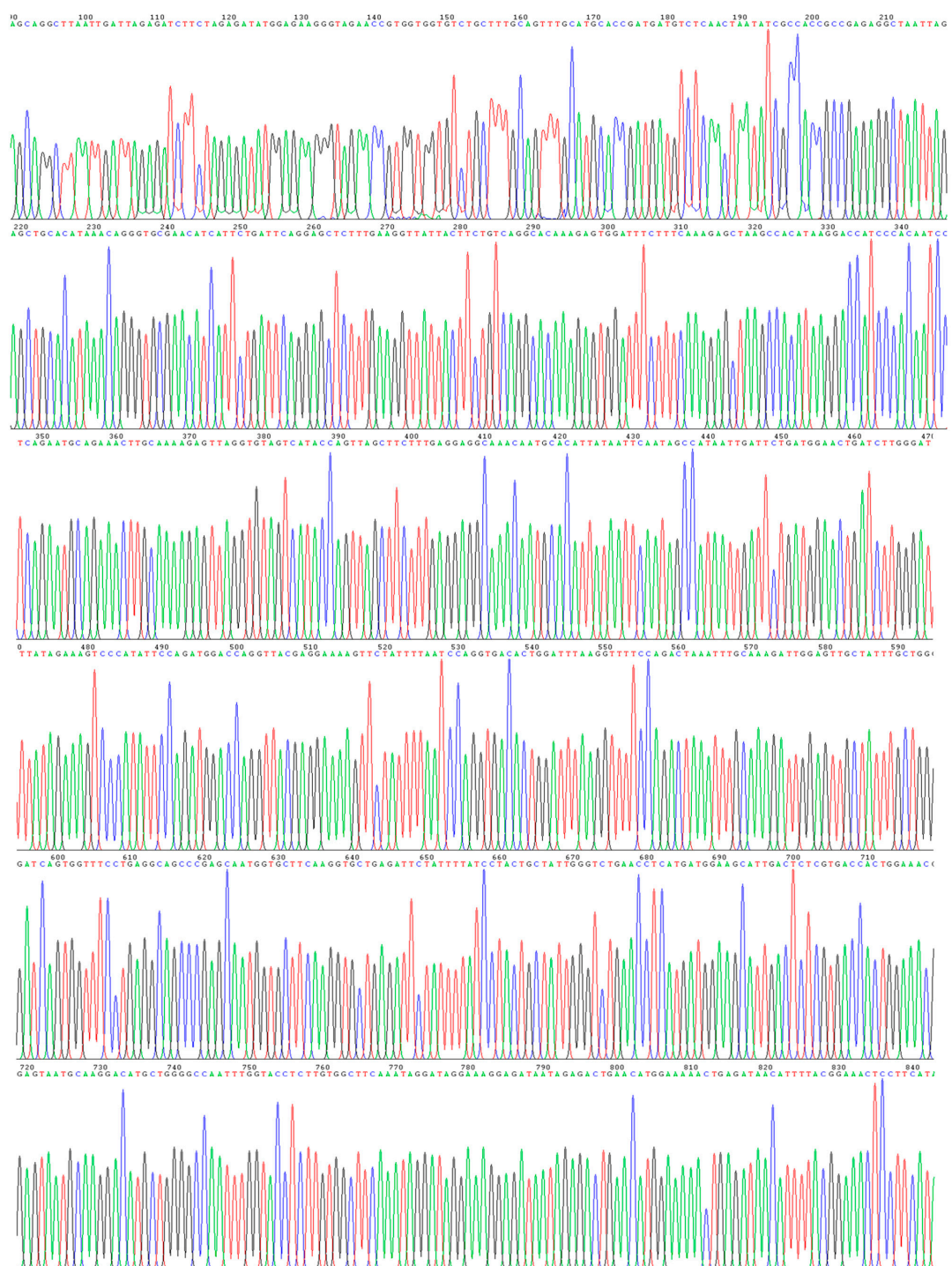


Figure S4. Sequencing of target gene from *pSOY1-Glyma.12G185700* recombinant vector for plant expression with forward-specific primer.

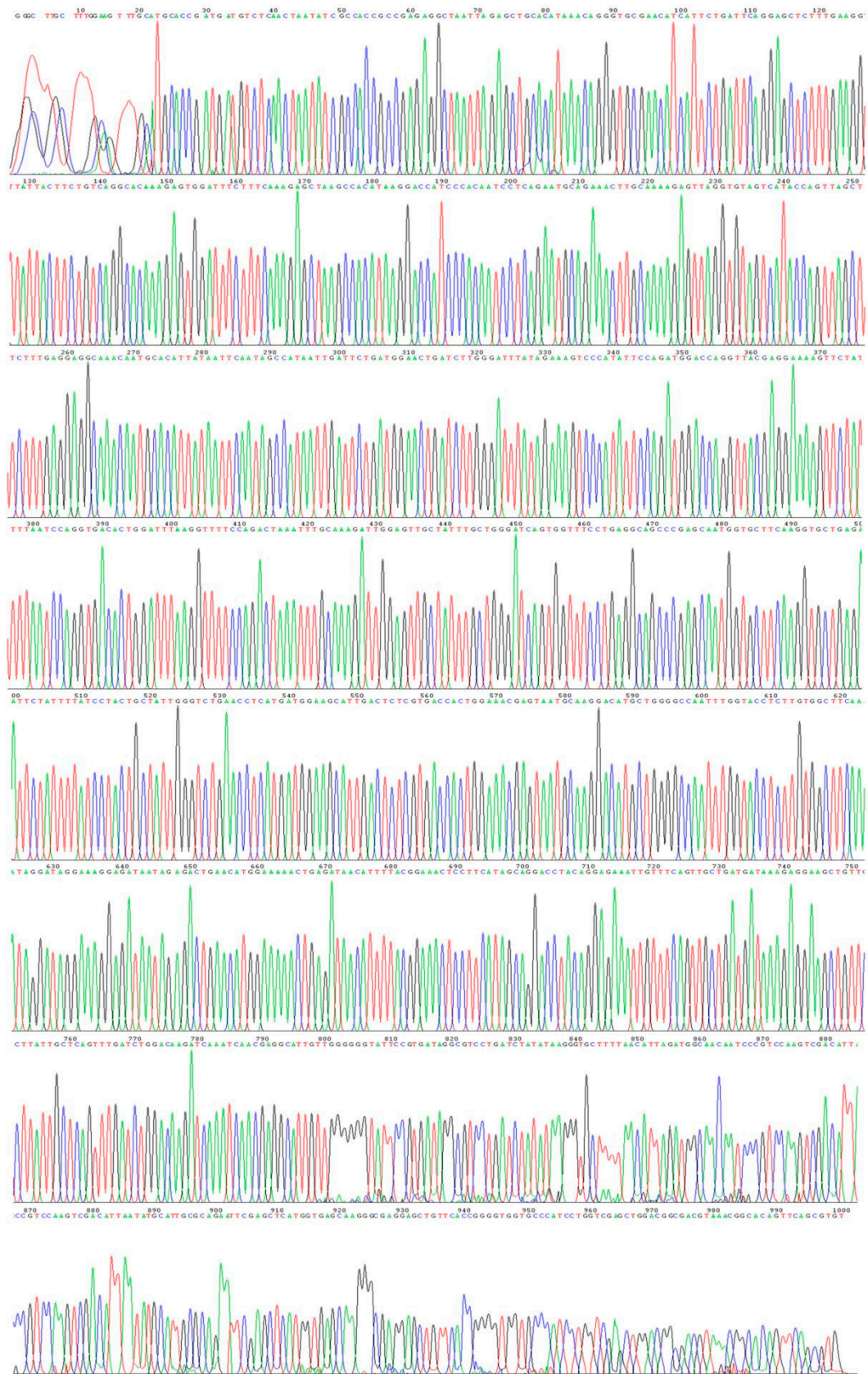


Figure S5. Sequencing of target gene from *pSOY1-Glyma.12G185700* recombinant vector for plant expression with reverse-specific primer.

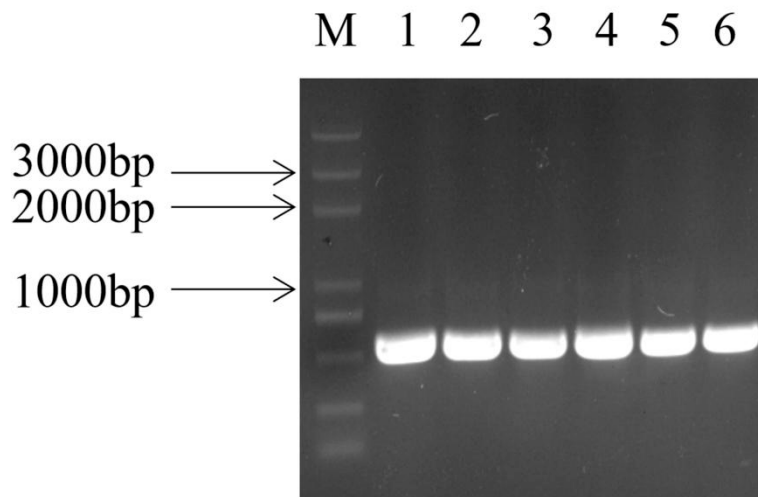


Figure S6. PCR analysis of *pGES201-Glyma.19G095300*, *pGES201-Glyma.12G185700* recombinant vector for CRISPR-Cas9 gene-editing.

Note: M: Trans 2K Plus DNA marker; 1, 2, 3: *Glyma.19G095300* (Crispr-F/CRISPR-TCP-R); 4, 5, 6: *Glyma.12G185700* (Crispr-F/CRISPR-NLP-R)

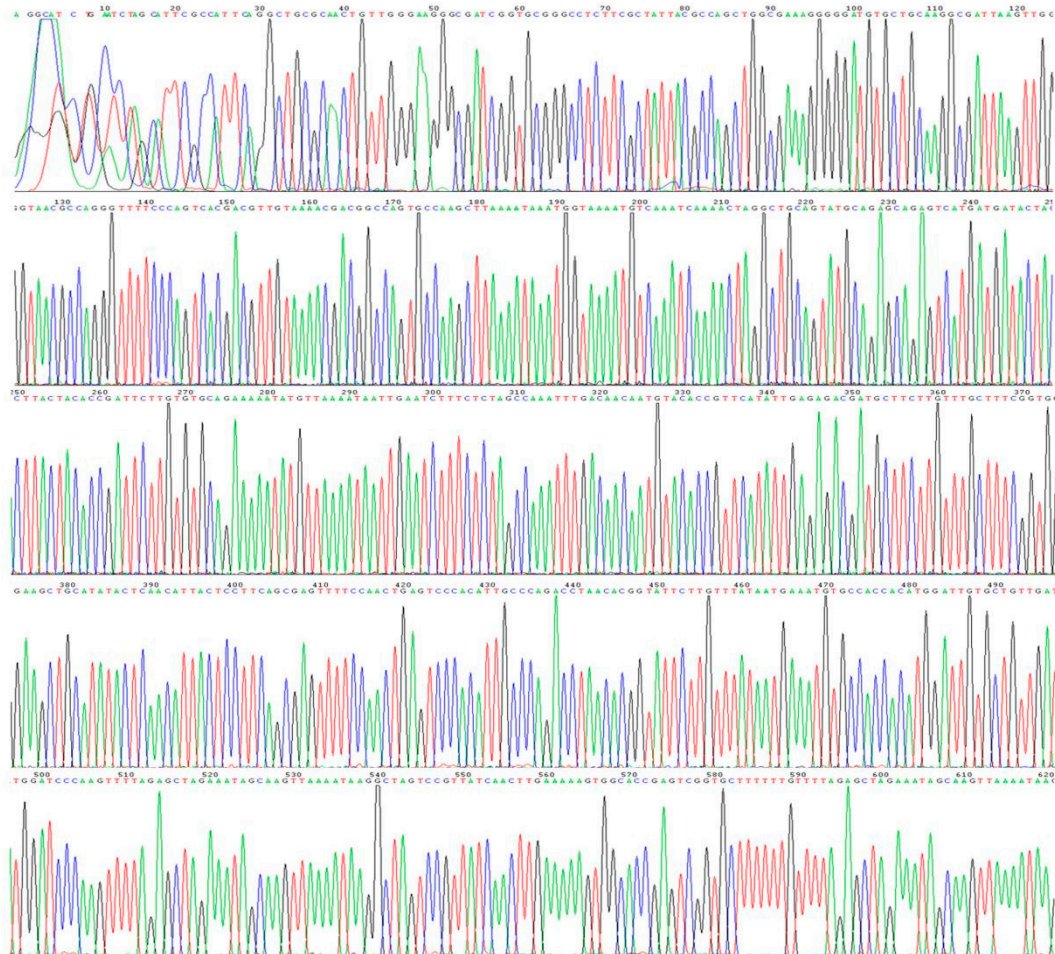


Figure S7. Sequencing of target sequence from *pGES201-Glyma.19G095300* recombinant vector.

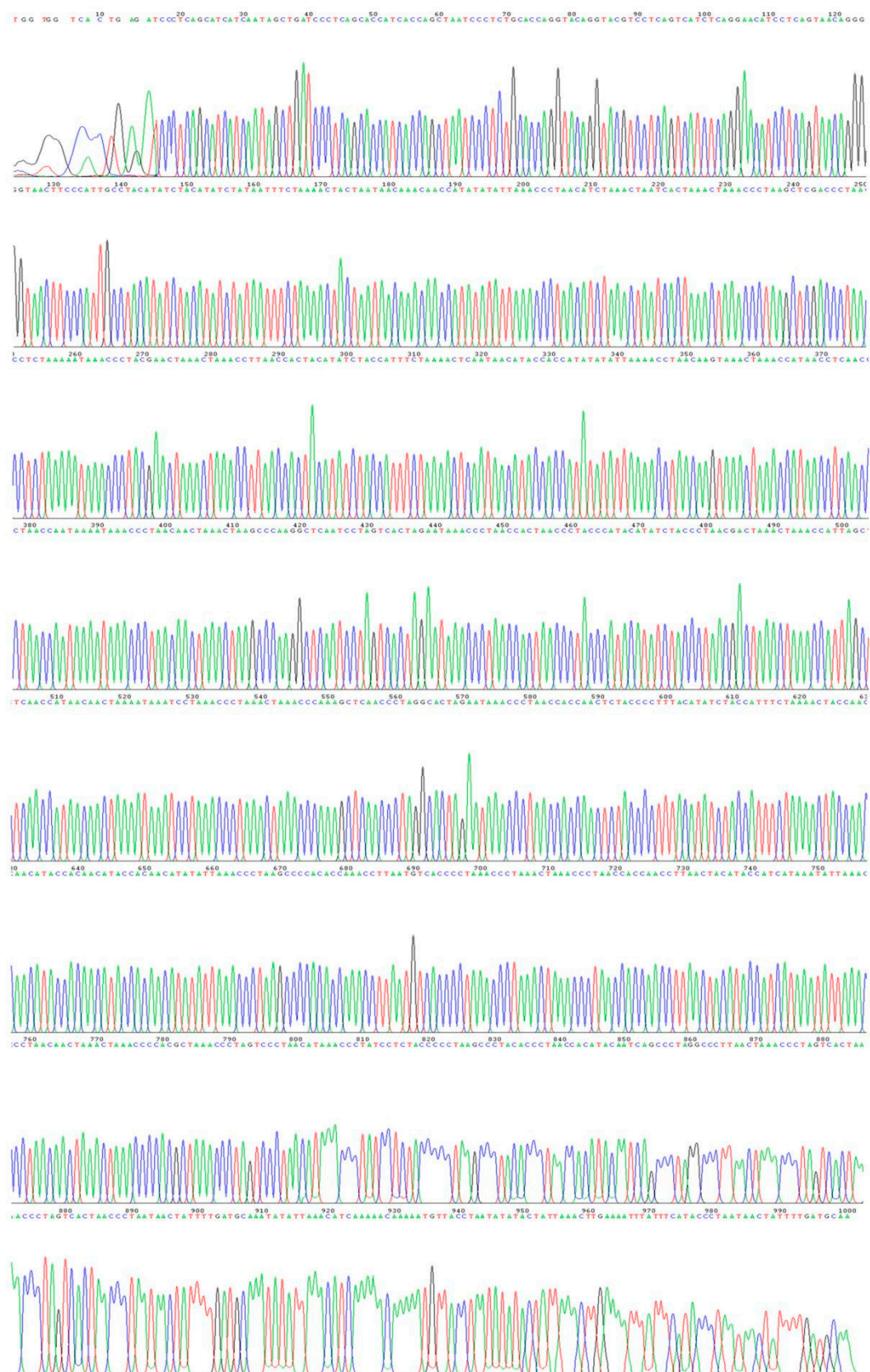


Figure S10. Sequencing of promoter sequence from *pCAMBIA-Glyma.19G095300pro: GUS* recombinant vector with forward-specific primer.