File S1

Partial sequence of (A) *inositol oxygenase* (*inox*) and (B) *phytoene desaturase (pds)* genes of wheat, and (C) *pds* gene of *Nicotiana benthamiana* used to decide the target for modification by CRISPR-Cas System. Targeted regions are shown in blue font and PAM in red. Primer used for amplification of gene after editing is shown in green.

(A)

Forward primer

```
GCTCGACGGCGGCTTCACCGTGCCGGACTCCAACGCCTTCGGCCACACCTTCAGGGACTACGACGCGGAGTCGGA BASE PAIRS
CGAGCTGCCGCCGAAGTGGCACGGCCTGAGGTTGCGGAAGCCGGTGTGGAAGTCCCTGATGCTGCGCCTCAGCCT 1 TO 75
```

Protospacer 1

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GCGGAAGAAGACGGTGGAGGAGTTCTACAGCGTGAACCACATCAACCAGACGTACGAGTTTGTGCAGCGGATGCG BASE PAIRS
CGCCTTCTTCTGCCACCTCCTCAAGATGTCGCACTTGGTGTAGTTGGTCTGCATGCTCAAACACGTCGCCTACGC 76 TO 150
```

Protospacer 2

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GGACGCATACGGGCGGCTGGACAAGACGGAGATGAGCATCTGGGAGTGCATCGAGCTGCTCAACGAGTTCATCGA BASE PAIRS
CCTGCGTATGCCCGCCGACCTGTTCTGCCTCTACTCGTAGACCCTCACGTAGCTCGACGAGTTGCTCAAGTAGCT 151 TO 225

CGACAGTGACCCCGACCTGGACATGCCGCAGATCGAGCACCTCCTCCAAACCGCCGAGGCCATCCGCAAGGACTA BASE PAIRS
GCTGTCACTGGGGCTGGACCTGTACGGCGTCTAGCTCGTGGAGGAGGTTTGGCGGCTCCGGTAGGCGTTCCTGAT 226 TO 300
```
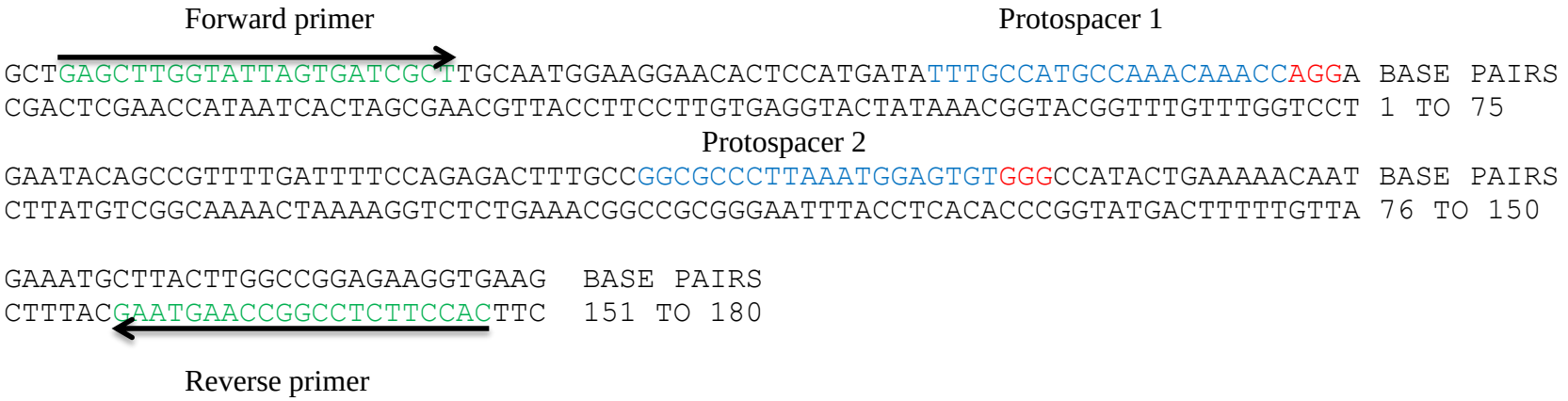
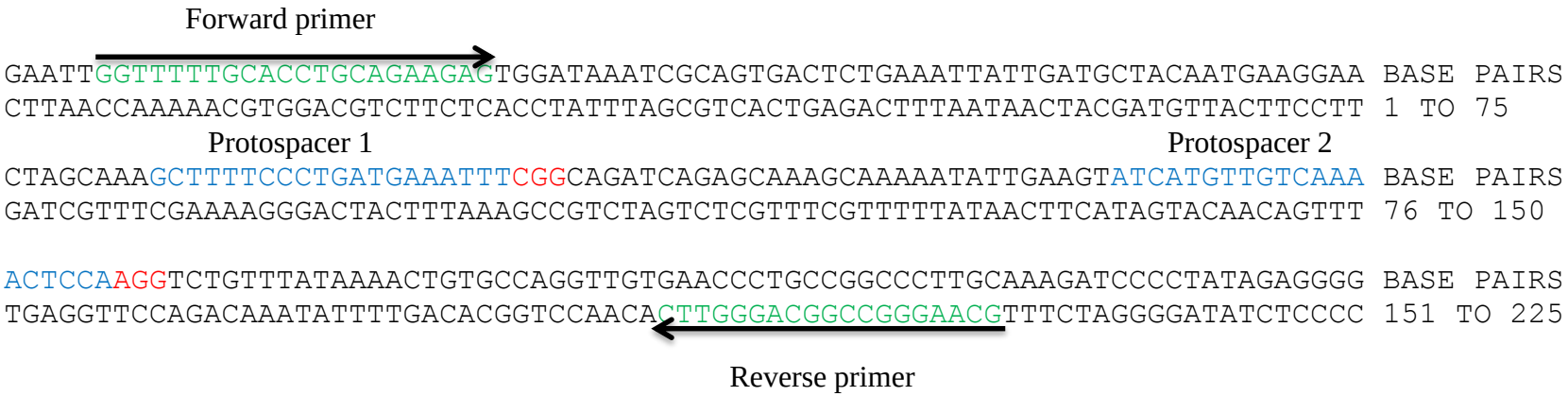

Reverse primer

Yellow highlighted region is the site for BsgI used for digestion of amplified DNA.

(B)


Forward primer
Protospacer 1
GCTGAGCTTGGTATTAGTGATCGCTTGCAATGGAAGGAACACTCCATGATATTTGCCATGCCAAACAAACCAGGA BASE PAIRS
CGACTCGAACCATAATCACTAGCGAACGTTACCTTCCTTGTGAGGTACTATAAACGGTACGGTTTGTTTGGTCCT 1 TO 75
Protospacer 2
GAATACAGCCGTTTTGATTTTCCAGAGACTTTGCCGGCGCCCTTAAATGGAGTGTGGGCCATACTGAAAAACAAT BASE PAIRS
CTTATGTCGGCAAAACTAAAAGGTCTCTGAAACGGCCGCGGGAATTTACCTCACACCCGGTATGACTTTTTGTTA 76 TO 150
GAAATGCTTACTTGGCCGGAGAAGGTGAAG BASE PAIRS
CTTTACGAATGAACCGGCCTCTTCCACTTC 151 TO 180
Reverse primer

(C)


Forward primer
GAATTGGTTTTTGCACCTGCAGAAGAGTGGATAAATCGCAGTGACTCTGAAATTATTGATGCTACAATGAAGGAA BASE PAIRS
CTTAACCAAAAACGTGGACGTCTTCTCACCTATTTAGCGTCACTGAGACTTTAATAACTACGATGTTACTTCCTT 1 TO 75
Protospacer 1
Protospacer 2
CTAGCAAAGCTTTTCCCTGATGAAATTTCGGCAGATCAGAGCAAAGCAAAAATATTGAAGTATCATGTTGTCAAA BASE PAIRS
GATCGTTTCGAAAAGGGACTACTTTAAAGCCGTCTAGTCTCGTTTCGTTTTTATAACTTCATAGTACAACAGTTT 76 TO 150
ACTCCAAGGTCTGTTTATAAAACTGTGCCAGGTTGTGAACCCTGCCGGCCCTTGCAAAGATCCCCTATAGAGGGG BASE PAIRS
TGAGGTTCCAGACAAATATTTTGACACGGTCCAACACTTGGGACGGCCGGGAACGTTTCTAGGGGATATCTCCCC 151 TO 225
Reverse primer