

ZK0445

Target Position: exon4

Sense Strand Sequence

gtaagtgtgcagccctcaaaatcaatcaataacagttaaaagcaaccaatgctagggaaaataatgtgtttctgttttt
atgtgtgttgcagTGCCAGGCCCAACTCCTCAGTAGAAGGCGACATCACTATACCCATGATTAT
TATGGGATGGCTGGTTCTAGCTCTTGTACTGTTTCTTTCCGCCAGCCAGCATGAGGGGCC
CTTCAGCCAACAACAAGCCAATCGGTCCACATGGTgtaagtcaaatcaacagacttctctgtcagaaa
tgaattaaggtgatccaaatttaaaattgatcaacaatcgaactcatttcatccacaattagatgatagtcagtgcagt
gctgcagtgca

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

ZK0445a: 4bp deletion, 17bp insertion

CLUSTAL format alignment by MAFFT G-INS-i (v6.850b)

```
WT          ttctgtttttatgtgtgtttgcagTGCCAGGCCCAACTCCTCAGTA-----
ZK0445a     ttctgtttttatgtgtgtttgcagTGCCAGGCCCAACTCCTCGACATCACTATAACCA
*****. . *
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WT          -GAAGGCGACATCACTATAACCATGATTATTAT
ZK0445a     TGAAGGCGACATCACTATAACCATGATTATTAT
*****
```

ZK0445b: 8bp deletion, 8bp insertion(introduced a stop codon TGA)

CLUSTAL format alignment by MAFFT G-INS-i (v6.850b)

```
WT          ttctgtttttatgtgtgtttgcagTGCCAGGCCCAACTCCTCAGTAGAAGGCGACATC
ZK0445b     ttctgtttttatgtgtgtttgcagTGCCAGGCCCAACTCCTGAAGGTTGGGCGACATC
***** * . :.*****
```

```
WT          ACTATACCCATGATTATTAT
ZK0445b     ACTATACCCATGATTATTAT
*****
```