

## ZKO644

Target position: exon1

Sense Strand Sequence

gtgtagccgcctcactttctcagtcgccgactccgccctttcgtgaatctttataaatcctggagctccaggaacgaagcga  
ggcaaacgggacattatACCGAAAGCGCGCGCACATCCACGCACGGGTGTCATTCCATGCACCAT  
ACACTCACTCCTTTCTCAACGTCTATCAAACACATCTTGCGGACGCCCTTTTGGTCACAT  
CCACGGGTTTATGGCCGCTACGCTTCTTACCATGAGCGCTGCGCTCGCACCGGGACAAGATG  
ACTTTCTCTCGCTTCTTAAACCCTCACTGTCCGACGGCTTTCAGGAGGACTCCTCTCTGTTTTG  
CTTTGAACACAAGAATCCTGACTCGGAAAGGGGCTTATCCAACGACTATTCTCAGgtaatttgag  
ttttgcctttcattgtgctcaagacagtggatattattgaatgcctatgaaataaagctatcaacgagtgaaggaggcc  
gatgtagatgatgcgccacatgctgcagcctgcagtcccatcagcatcatgccccatgaaatggtctcgcaatgtgcg

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

### ZKO644a: 14 bp deletion

CLUSTAL format alignment by MAFFT FFT-NS-i (v7.215)

```
WT          GACTTTCTCTCGCTTCTTAAACCCTCACTGTCCGACGGCTTTCAGGAGGACTCCTCTCTG
ZKO644a     GACTTTCTCTCGCTTCTTAAACCCTCA-----CTTTCAGGAGGACTCCTCTCTG
*****
WT          TTTTGCTTTGAACACAAGAA
ZKO644a     TTTTGCTTTGAACACAAGAA
*****
```

### ZKO644b: 55 bp deletion

CLUSTAL format alignment by MAFFT FFT-NS-i (v7.215)

```
WT          GATGACTTTCTCTCGCTTCTTAAACCCTCACTGTCCGACGGCTTTCAGGAGGACTCCTCT
ZKO644b     GATGACTTTCTCTCGCTTCTTAAACCCTCA-----
*****

WT          CTGTTTGTCTTTGAACACAAGAATCCTGACTCGGAAAGGGGCTTATCCAACGACT
ZKO644b     -----CTGACTCGGAAAGGGGCTTATCCAACGACT
*****
```