

ZKO34

Target Position: exon 4

Sense Strand Sequence

```
tcatcaggcatcaccagtcgtcacagtggactccccaatgctgttgtgttataactgtgttggcctataacggcatcatt
aacacacctgtgtttgctccgagGCTCCACCGCAGGTAAGGGCCCCATGACGCCACTGCCGCTGCC
GCCTCCGCAGATGCCCGTCACACAGATGCCCTCATGCAGATGCCTCCTCCCAGCATGCACG
GCAATGGCAGCGCCCATGGCACCAATCAGGTCCTGGACTACCTGGAGAACCAGATGCGGG
GCATAGACGTGAACAGCCCGCTCCTGCC
```

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

ZKO34a: 40bp deletion

CLUSTAL format alignment by MAFFT G-INS-i (v7.215)

```
WT          aacacacctgtgtttgctccgagGCTCCACCGCAGGTAAGGGCCCCATGACGCCACTGC
ZKO34a      aacacacctgtgtttgctccgagGCTCCA-----
*****
```

```
WT          CGCTGCCGCTCCGCAGATGCCCGTCACACAGATGCCCT
ZKO34a      -----TCCGCAGATGCCCGTCACACAGATGCCCT
*****
```

ZKO34b: 6bp deletion, 88bp insertion

CLUSTAL format alignment by MAFFT G-INS-i (v7.215)

```
WT          ccgcagGCTCCACCGCAGGTAAGGGCCCCATGAC-----
ZKO34b      ccgcagGCTCCACCGCAGGTAAGGGCCCCAGAATCACATGATGCATCAAAAGCAGTCAT
***** .*
```

```
WT          -----GCCA
ZKO34b      GACGGGAACGCAGAGACCATCCTTCATACCGCACTTAAATAATATCCGACAGCGGCACA
**
```

```
WT          CTGCCGCTGCCGCTCCGCAGATGCCCG
ZKO34b      CTGCCGCTGCCGCTCCGCAGATGCCCG
*****
```