

ZKO38

Target Position: exon 5

Sense Strand Sequence

ggacagATGGAGTGTGTGCCAGTGACTGTGATCTGCTGGAGGATCTCGGGGTTTTTCTGGC
TCCGCCTCTCCGTGGGCTCAGTGATGGAGAGTGTGTGTGCAGACGCGCCACCGCTTTAC
ATGCAGAACACACTCCCCGCTGTGCAGAACACACTCCCCGCTGTGCAGAACACACTCCCCGC
TGTGCAGAACACACTCCCCGCCGCGCCAGTTTCCTTCTTCCAATGGCAGATCCAGCAGG
AGGATGAGAACTGTCTGCGTTGAGCCCTGC GGAGCTGATGAGCCGAGATGAGGACGGAG
ACACgtagtacacacac

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

ZKO38a: 42bp deletion

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

```
WT          ACTCCCCGCTGTGCAGAACACACTCCCCGCTGTGCAGAACACACTCCCCGCTGTGCAGAA
ZKO38a      ACTCCCCGCTGTGCAGAACACACTCCCCGC-----
*****
```

```
WT          CACACTCCCCGCCGCGCCAGTTTCCTTCTTCCAATGGCA
ZKO38a      -----CGCGCCGAGTTTCCTTCTTCCAATGGCA
*****
```

ZKO38b: 21bp deletion, 7bp insertion

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

```
WT          AGGAGGATGAGAACTGTCTGCGTTGAGCCCTGCGGAGCTGATGAGCCGAGATGAGGACG
ZKO38b      AGGAGGATGAGAACTGTCTGCGTTGAGCC-----GGAGGACATGAGGACG
*****                                     . * ** *****
```

```
WT          GAGACACGTCAGTACACACAC
ZKO38b      GAGACACGTCAGTACACACAC
*****
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