

## ZKO1114

Target Position: exon 3

Sense Strand Sequence

ctgttgcttgattgcatgttgtgtgtgtgatgtttgtgatgtgactgtgtatagtagctgatgtgattgtgtgtgtct  
gtgatgtgattgtatgcgtgcgtgtgtgcgtgttgtgtgtttcagGCCGTGCCGTTCTGTGGAGGGATCCGTG  
GAGGTCTGAGACCTGGCAAGAAGATCACCATCATGGGTGTTGTGAGCGCAGATCCGGACAGg  
taaatacagtgcacatctggaaagttttagatagcgttcacttttccacatgttttatgttacagccttattcaagtgatta  
aattcattcagtcgattggacatgattgaaaaggcatacacctgtctatataaggcccagggtgacagtgcatgtcaaa  
gctcaaaccaagcatgaagacaaggaactgtcttagacctccgagacagga

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

### ZKO1114a: 5bp deletion, 4bp insertion

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

```
WT          GCCGTTCTGTGGAGGGATCCGTGGAGGTCTGAGACCTGGCAAGAAGATCACCATCATGGG
ZKO1114a    GCCGTTCTGTGGAGGGATCCGTGGAGGGCTGAGACCTGGCAAGAAGATCACCAAT-CAGG
*****
***** . . .**
```

```
WT          TGTTGTGAGCGCAGATCCGGACAGgtaaatacagtgcacatctggaaa
ZKO1114a    TGTTGTGAGCGCAGATCCTGACAGgtaaatacagtgcacatctggaaa
*****
*****
```

### ZKO1114b: 20bp deletion

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

```
WT          GCCGTTCTGTGGAGGGATCCGTGGAGGTCTGAGACCTGGCAAGAAGATCACCATCATGGG
ZKO1114b    GCCGTTCTGTGGAGGGATCCGTGGAGGGCTGAGA-----CATGGG
*****
*****
```

```
WT          TGTTGTGAGCGCAGATCCGGACAGgtaaatacagtgcacatctggaaa
ZKO1114b    TGTTGTGAGCGATCATCCTGACAGgtaaatacagtgcGtctggaaa
*****      **** *****.*****
```