

## ZK032

Target Position: exon 8

Sense Strand Sequence

actccctaactgcatcagaacagcagagtcactcgctgtcttcaagaaaccactaaaaactcaactatttagtctccacttc  
ccttctaactgcaattgcctctctggctccaccgctaactgtactcaaaaaataataataaaaaacgttttgctttta  
cactttacacactgaaactgcctacagcacttattctctgttgccttatagttgtgtaaattgcttcctgtcctcatttga  
agtcgcttgataaaagcatctgctaaatgactaaatgtaaattgtttatttggtttttgcctttttaacagggtttactg  
tcatctgttttctcatgtcctgtaataagatgtgtgtgtgtgtgtgtgtgtcaatccgcagTGCCGACTCCATCCTC  
CAGCCCTCCGGATGCAGTGGACCGATATCTGGAGACGCCGGCGGACGAGAACGAACACGCT  
CACTTCTACAGGC

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

### ZK032a: 24bp deletion

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

```
WT          AGCCCTCCGGATGCAGTGGACCGATATCTGGAGACGCCGGCGGACGAGAACGAACACGCT
ZK032a      AGCCCTCCAGATGCA-----GCGGACGAGAACGAACACGCT
              *****.*****                               *****
```

### ZK032b: 6bp deletion, 8bp insertion

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

```
WT          AGCCCTCCGGATGCAGTGGACCGATATCTGGAG--ACGCCGGCGGACGAGAACGAACACG
ZK032b      AGCCCTCCGGATGCAGTGGACCGATATCCGATATCTCGCCGGCGGACGAGAACGAACACG
              *****.*****.*****
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