

ZKO19

Target Position: exon 2

Sense Strand Sequence

gatccctgataaataaagggactaagctgaacaaaatgaaagaatgaatgaaattaatcataagttgggtttgtctata
attgaccagttttgggttatttggcaaccagatTTTTatagtgtaacaggacacctaataataaagcgggacccaaca
aaatgctgggttgttgaatccattgggtcaaataatgcataatcgtgtgcctgaactttgtgtgcgtgtgtgtgtgtgt
gtgcagATGTCAGTGCAGACGCTGAACTGGCGGCTGCCATCATGAAGAGACACTTCCGTCCGTC
TCTGATAAAGACAGAAGCGTGGGAAGGCTATGAGTTTGCAGACAAGGAGATCAAGATCACG
GAGTCGACGGACTGCTATGGGCCGTTCTGTGGCCCTCGgtgtgtgtctgtgtgtgtgttacatcatttac
actcagaacagcaggactagtttagttaacatcatctgtctctccagGCCATGGTGTCTGTGTCACCTTTTGG
ACTCTCATCGCGATCAATACAACCTGCT

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

ZKO19a: 5bp deletion

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

```
WT          GCAGACAAGGAGATCAAGATCACGGAGTCGACGGACTGCTATGGGGCCGTTCTGTGGCCC
ZKO19a      GCAGACAAGGAGATCAAGATCACGGAGTCGACGGA-----ATGGGGCCGTTCTGTGGCCC
*****
WT          TCG
ZKO19a      TCG
***
```

ZKO19b: 16bp deletion

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

```
WT          TGGGAAGGCTATGAGTTTGCAGACAAGGAGATCAAGATCACGGAGTCGACGGACTGCTAT
ZKO19b      TGGGAAGGCTATGAGTTTGCAGACAAGGAGATCAAGATCACGGAGTCGA-----
*****

WT          GGGGCCGTTCTGTGGCCCTCGgtgtgtgtctgtgtgtgtgttac
ZKO19b      -----CGTTCTGTGGCCCTCGgtgtgtgtctgtgtgtgtgttac
*****
```