

## ZKO489

Target Position: exon 1

Sense Strand Sequence

AGCCAGAGAAGGAGGAGTGTGCTGTGAAATGTCACCCAGCGCTCAGGAGAGGAGATCTGCT  
GGAGGTGCAGCGCACTCTTTCATTACGTCATTATCTAGGCGAGAACAGAGTGGCTCA  
CCTAATGCCCGACATCATGCCCTGTGTTAACAGCAACAAACAGCACATTAAACCAGTCGTCAC  
GAACAAAAGACTCATTTTAGGCTGCATGTACAGACTCGCGAGTATACGCGTCGATTCCGGTTGA  
AGATTCGCGTACGGAGCTCCGATTCTGACCAACGACATGGACAAGAAAATGAAGTGTCAAG  
TACTGGCGAACGAGGAGGTGCGAGGAGAGCAGAGAACTGGTTCGGCGACATACCGTACA  
GTTTATTGTGGAATAACTGCGAACATTCGTGACGTACTGCAGGT

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

### ZKO489a: 12bp deletion

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

```
WT          ATTTATCTAGGCGAGAACAGAGTGGCTCACCTAATGCCCGACATCATGCCCTGTTAACC
ZKO489a     ATTTATCTAGGCGAGAACAGAGTGGCTC-----ACATCATGCCCTGTTAACC
*****                                         *****
```

```
WT          AGCAACAAACAG
ZKO489a     AGCAACAAACAG
*****
```

### ZKO489b: 24bp deletion

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

```
WT          AGGCGAGAACAGAGTGGCTCACCTAATGCCCGACATCATGCCCTGTTAACCAGCAACAA
ZKO489b     AGGCGAGAACAGAGTGGCTCACCTAATGCC-----CAACAA
*****                                         *****
```

```
WT          ACAGCACATTAAACCAGTCGTCAC
ZKO489b     ACAGCACATTAAACCAGTCGTCAC
*****
```