

## ZK012

Target Position: exon 1

Sense Strand Sequence

ttATCGTCCACTTGTCCATCACACACTGGATCCATTGGTCCTCCAGCAGATCTCCACATCCA  
GAGTCTGATGATCTGATCCTGGCCTTTGTCGCTGCGTCCAGTTTGAGCTCCAATGCTCTCGCT  
GTGACCCGTCAGTCTTCAAGAATCCTCTAGAAAATTCTGTGTCCTCAACATGGACATCGGC  
GGCCTCACCACGGTGGTGGCCA**ACTCTGCCTACATCTCCGCC**CGCGGCAGCTTCGATGGCA  
CGGCAAACCCAGCGTCCAACCGAGACAAGAAATACCACTCCAAGCTGAAGCTGCCCCACAT  
CACGGTCTGCGAAGATCTCCGAGAAACCCTGGATCTGCAGTTCAGGAGCATCTGTGTGGAG  
CAACCCATCGGGAAGAGGCTTTTTTCAGGAGTATCTGGAGACCGCCAATGAATACAAGGGCC  
CCTGCCGCCTGT**GGAGGGACGTAGAGGAATACG**

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

**atcg** : Forward/Reverse primer

**atcg** : cas9 target site

### ZK012a: 30bp deletion

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

```
WT          CTTCTGTGTCCTCAACATGGACATCGGCGGCCTCACCACGGTGGTGGCCAACTCTGCCTA
ZK012a      CTTCTGTGTCCTCAACATGGACATCGGCGG-----
            *****

WT          CATCTCCGCCCGCGGCAGCTTCGATGGCAC
ZK012a      CATCTCCGCCCGCGGCAGCTTCGATGGCAC
            *****
```