

## ZK092

Target Position: exon 2

Sense Strand Sequence

ctcatagGACTTCAGATGTGTCAATGCCAGCCGGAGGGTTCCCACTTCAGAGTAAAGATGGAG  
ACGAGAACTCAAATGGCGGCAGCGGCTCCTCTGGCTTGCTGCGAGCTTTGCGTGACAGTG  
GCAGGCCACAGACTGGGGACTCTGAGCCTTGGGATGGTCAGGTGCTCTCCCTGGATCAGATC  
AGGACCATCCGTGGTAGCAATGAGTACACGGAGGGCCCGACGGTGGCGCCACGGCCCCCGG  
CCTCTGAGCAAAAAACGGATTCACAAGCTTCCAGCCCACTTCCACCAGCTCTATTGAGCTGC  
CCGAGCATAGGAACTCCCTGAGGGCTCAGCAGGCAGGACAGCAGACTCCTCAACAAGCCCC  
GAGGGGAGGCGTGAGCAGATCCATCAGTGGCACCAGCGATGGTTCACACAGTACCACC

Uppercase: exon/coding sequence

Lowercase: exon/coding sequence

atcg : Forward/Reverse primer

atcg : cas9 target site

### ZK092a: 1bp insertion 20bp deletion

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

```
WT          TCAGGACCATCCGTGGTAGCAATGAGTACACGGAGGGCCCGACGGTGGCGCCACGGCCCC
ZK092a      TCAGGACCATCCGTGGTAGCAATGAGTACG-----GCCACGGCCCC
          *****
          *****

WT          CGGCTCTGAGCAAAAAA
ZK092a      CGGCTCTGAGCAAAAAA
          *****
```