

## ZK0319

Target Position: exon 2

Sense Strand Sequence

cagtgattgcgagactgattcgtgtagtggttatacgcactgcttgggtataacttaaataacactagtaatgggttggt  
acagttaaaaaagttaaggagaataaccaacacgacaaatgatctgcaaaactgaggtataatactgctgttatatatt  
tcagTTCACAGAAGATTGCAGAA**GTGGCATGTATCCTCCAA**TGGCCCCACgtaagtatagtaactga  
aattatgaattatacagtcggtagaagactgtcagagtgattgtgttattacacacttctctgacactttacctcaca  
ggtagctgtagtgatgtaaataataaagcgagcaataaatacacacgagagaaaaagaaatatatgtcactta  
gataattaataacagtgtcaggtgtttgtaac**aatagggttgaaaatca**

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

**atcg** : Forward/Reverse primer

**atcg** : cas9 target site

### ZK0319a: 8bp deletion

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

```
WT          ATATATTTTCAGTTCACAGAAGATTGCAGAAGTGGCATGTATCCTCCAAATGGCCCCACGT
ZK0319a     ATATATTTTCAGTTCACAGAAGATTGCAGAAGTGGCATGT-----AATGGCCCCACGT
*****
```

```
WT          AAGTATAGTAACTGAAATT
ZK0319a     AAGTATAGTAACTGAAATT
*****
```

### ZK0319b:9bp deletion

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

```
WT          ATATATTTTCAGTTCACAGAAGATTGCAGAAGTGGCATGTATCCTCCAAATGGCCCCACGT
ZK0319b     ATATATTTTCAGTTCACAGAAGATTGCAGAAGTGGCATGT-----ATGGCCCCACGT
*****
```

```
WT          AAGTATAGTAACTGAAATT
ZK0319b     AAGTATAGTAACTGAAATT
*****
```