

## ZKO182

Target Position: exon4&exon5

Sense Strand Sequence

agcagtttcttacaactggacatatgaacagaaaaaaaaacaacccttgacaataagaaaaaaaaagtgttttatcca  
gatttaggtgtagtgctaaagttaaagtgtgtcaaattacataaagcctatttaaattctaataattctgaatactaac  
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CCTCAGAAGCAGAAAACATTAAGGGCTGCAATCACAAATACAAAAACAATCTGACATACT  
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 ATAAT **CCCAACTGGAGAGTATTAATCC**TGTTCAAATTGTGAAAGCTCTAAGCTTTGGTCT  
 GAAACCCAAAGTAAAGCCATTATAAATGAAAAACATTTAATTGTGGGAATGAATTTAGTTC  
 TGAATGTCAAACCTTTTTGATAAGACCTCTTTGGAGACTTCTGTAAATGAGAGTACAGAAA  
 GAAGGAATCCGTCAGAGGAATTTCTCCAACAATCTGACATTATTCATGAGCAA **ACGCCA**  
**TTCTCTGATGCAGG**

Uppercase: Exon/coding sequence  
 Lowercase: intron/noncoding sequence  
**atcg** : Forward/Reverse primer  
**atcg** : cas9 target site

**ZK0182a: 2382bp deletion**

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

WT	TTACATCTACACCGTCTTTGTACTCCCCTGCATGCAAGCGAAGCCCTGCTCACCGGCTCC
ZK0182a	TTACATCTACACCGTCTTTGTACTCCCCTG----- *****
WT	GTTCAAACGCAGTCGACTGCGCCTACAGAACAAGAGCGAGAATCAGACACTGACATCA
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WT	GCCAAGAGAATATCCATGAAAGAGAGAACGCCGAATTAAGGAATGTCCTAATAGTAAAG
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WT	ACATTGAGAAGGAGAAGTGTAAGGATAGGCCATCACGAGTAAAAACAGACAGTAAATTG
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WT	TGAAGCCACCTCAAGTTCTGGAGAATGATGGGAAAAAAGAGGAACACTGTGTATTAACCT
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WT	AAAATCAAATGCTGACAGTAGCAAGGCAGAGGTTGATTACCTCTTACTGATCGGCCTG
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WT TTAAGGAAGAATTACACTTTGGTCCACCAGTGTCTATCTCATTTTTCTCTCAGTCAGCTG  
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WT ATTATGATGACAAGATTGATGTAAACAATCCTCATTTACATCTGGTGTCTAGACTCAT  
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WT GCACACTTGTTCGAGGGTTTACCATTTCCAGTGGAGTATTATGTTCCGACGACACGACGCA  
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WT TGGCTGCATCTAACAGCTCCATCGATCTAGATGCTGTCATTTATAGCCAGCTCACAGGAG  
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WT TAAACCCAGAGCAAGGAGCTACTCAAGATTTAAAGCATCTCCAGATTCTCAGCTTACA  
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WT TTGACTCCCAACTCATCCCGATTGAGATTGTATCCTATTTTCAGGAGAAAGCTTGGAC  
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WT AACTGGATTAGAGTCTCAGAAAGGAACAAATAAATATGGTGAGAATTATTCCTACTTG  
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WT TGGCTAAAATGTTGAGTTTCAGACATGATTTTTTATTTGTTGTTTTTTATTTTGCAT  
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WT TTTAGATCAGTCGCCATTTTTGCCATCATTAACCTCACTTATCCAGGGTCTTCAAGAAAA  
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WT	GGATTTTGGCCAGCTGAAGCTTGAAAGATTACGCTTGCCCACTTCAATCGTAGAACCCCTT
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WT	CCCACAGCACCATCTAGCGTACAAAACACGGCAGAGCAGCAGGCGCCAGAGAGCGAGAAA
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WT	GTGTA AAACTGATGCACATTTTTCAGTGGGGAATTGTTTACTCCAGAACCCATATATAT
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ZK0182a -----

WT TAATCCCAACTGGAGAGTATTAATCCTGTTCAAATTTGTGA  
ZK0182a -----GGAGAGTATTAATCCTGTTCAAATTTGTGA  
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