

## *insm1a*<sup>nju54/+</sup> (AB) (CZRC catalog ID: CZ 277)

### Nature of the mutation

Between 162 bp to 171 bp of the wild-type *insm1a* coding sequence, CCGGGCTATG, is deleted.

### Sense Strand Sequence

CTCTGATTCAACCCGACTG AAGTGCCTTTCAGCTGGCGAAGATGCCAGAGGATTTT  
 TAGTCAAGCGAAATAAGAAAGCGACACCTGTTTCGTACCGGGTCCGCTCGGAGGAGG  
 ACGAGCAGGGCGCGTTTGTCTGCGCAGGATGTTCCGTGCGCGCGCCGCCCGGTGTCAC  
 CCGTGCAGTTC **GGGAACCCCGAGACAGTCTACCGG** GCTATGTACAGCCCGACGCGTC  
 CCGTCAGCAGAGAGCACGAGAGGGCGTGTGGAGCGGCGCTTTAATCTCGGCTCGC  
 CCATCTCAGCGGAGTCTTCCCGGCGGCGCCAAACTGCTCCGACCAAGCGCCGGTGG  
 ATCTTAAAATCGGCACCAGCAACAGCAACCGAACCAGCACAGTAACCACCAAAA  
 GACCCGCGTCCGACACAGAGCGCAAAGGCAAACCGGCATCCAAGAAAGCCAAAGCC  
 ATGCGGAAGCTGCAGTTCGAGGATGAG **ATGACCACCTCTCCAGTGCT**

**atcg** : Forward/Reverse primer

**atcg** : cas9 target site

### Genotyping assay

#### Primers:

**nju54\_forward**: 5' CTCTGATTCAACCCGACTG 3'

**nju54\_reverse**: 5' AGCACTGGAGAGGTGGTCAT 3'

#### PCR program:

95°C 5min  
 95°C 30 sec } 30 Cycles  
 56°C 30 sec }  
 72°C 30 sec }  
 72°C 8min  
 4°C hold

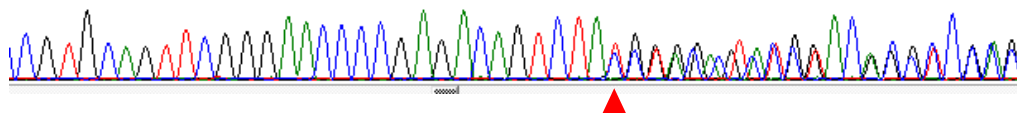
**Product size: 503 bp**

### The sequencing results of the CZ277(+/-):

Target sites

150                      160                      170                      180                      190

: C G T G C A G T T C G G G A A C C C G A G A C A G T C T A C G G G G C T A T G G A C A G G T C G C G



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

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WT          CTCTGATTTCAACCCGACTG AAGTGCC TTTTCAGCTGCGAAGATG-CCCAGAGGATTTTAA
CZ277      CTCTGATTTCAACCCGACTG AAGTGCC TTTTCAGCTGCGAAGATG-CCCAGAGGATTTTAA
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WT          GTCAAGCGAAA TAAGAAAGCGACACCTGT TTCGTACCGGGTCCGC TOG GAGGAGGACGAG
CZ277      GTCAAGCGAAA TAAGAAAGCGACACCTGT TTCGTACCGGGTCCGC TOG GAGGAGGACGAG
*****

WT          CAGGGCGCG TT TG TCGCGCAGG ATG TTCGTGCG-OG-OG-OCOG-GTG TCACCOG TG-CAG
CZ277      CAGGGCGCG TT TG TCGCGCAGG ATG TTCGTGCG-OG-OG-OCOG-GTG TCACCOG TG-CAG
*****

WT          TTOGG AACCCOGAGACAGTCTA CCGGC TATG TACAG-CCGACOG-OGTCCOG TCAGCAG A
CZ277      TTOGG AACCCOGAGACAGTCTA ----- TACAG-CCGACOG-OGTCCOG TCAGCAG A
*****

WT          GAGCACGAGAGGG-OG TGT TTGGAGCGG-OG-CTT TAATCTOGGCTOG-CCCATCTCAG-OGGAG
CZ277      GAGCACGAGAGGG-OG TGT TTGGAGCGG-OG-CTT TAATCTOGGCTOG-CCCATCTCAG-OGGAG
*****

WT          TCTTTCOOGGCGG-OGCCAAACTGCTCCGACCAAG-OG-CCGGTGG ATCTTAAAA TOG-GCACC
CZ277      TCTTTCOOGGCGG-OGCCAAACTGCTCCGACCAAG-OG-CCGGTGG ATCTTAAAA TOG-GCACC
*****

WT          AGCAACAGCA AOCGA AOCGGCAOCACAGTAA CCAOCAA AAGACOCGOG TCOGACACAGAG
CZ277      AGCAACAGCA AOCGA AOCGGCAOCACAGTAA CCAOCAA AAGACOCGOG TCOGACACAGAG
*****

WT          OGCAAAGGCAAACOGGCA TCCAAGAAAGCCAAAGCCATGOGGAAGCTGCAGTTOGAGGAT
CZ277      OGCAAAGGCAAACOGGCA TCCAAGAAAGCCAAAGCCATGOGGAAGCTGCAGTTOGAGGAT
*****

WT          GAGATGACCACCTCTOCAGTGT
CZ277      GAGATGACCACCTCTOCAGTGT
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**Reference:**

None