

msx3^{ihb246/+} (CZRC catalog ID: CZ453)

Nature of the mutation

Between 297 bp to 305 bp of the wild-type *msx3* coding sequence, AGTGGAGAG is mutated to TATCTGCGTAAAGCGACACACTACA in exon 1.

Sense Strand Sequence

GAGTCTCCCGTTCAGTGTGG AATCTTTAATATCAGACAGAACAAGCTCACGGACTTTATACACGTCTTCTGAA
GCTGGTATTATATCTCCGACATCCGGTGCGGATGAGCGGCTGAAGCTCTCGCCCATGGCTCTTTACGCAGATA
GGAAGATCCCAGTGGAGAGCGTCTCCAACC TCTCCGACTGCAAGAGAGGGGATATGGAAGAACTAAGTGA
CAAGGGACAGTCCGGCTGGTTTCAGACAACCTCGTACACTTCTCCG CCAAgtaagcacctcagcaa

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : Crispr/cas9 target site

Genotyping assay

Primers:

*msx3*_forward: 5' GAGTCTCCCGTTCAGTGTGG 3'

*msx3*_reverse: 5' ttgctgaggtgcttacTTGG 3'

PCR program:

95°C 5min

95°C 30 sec

60°C 30 sec

72°C 30 sec

72°C 8min

4°C hold

} 30 Cycles

Product size: 282 bp

The sequencing results of the CZ453:

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WT      TTCTGAAGCTGGTATTATATCTCCGACATCCGGTGCGGATGAGCGGCTGAAGCTCTCGCC
CZ453   TTCTGAAGCTGGTATTATATCTCCGACATCCGGTGCGGATGAGCGGCTGAAGCTCTCGCC
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WT      CATGGCTCTTTACGCAGATAGGAAGATCC-----AGTGGAGAG-----CGTCT
CZ453   CATGGCTCTTTACGCAGATAGGAAGATCCATCTGCGTAAAGCGACACACTACAEGTCT
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                *. . * *
*****

WT      CCAACCTCTCCGACTGCAAGAGAGGGGATATGGAAGAATAAGTGACAAGGGACAGTCCG
CZ453   CCAACCTCTCCGACTGCAAGAGAGGGGATATGGAAGAATAAGTGACAAGGGACAGTCCG
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Reference:

None