

insra^{ihb357/+} (CZRC catalog ID: CZ1260)

Nature of the mutation

Between 32bp to 34bp of the wild-type *insra* coding sequence, CGTCTGTCTACAC is mutated to TTT in exon 1.

Sense Strand Sequence

CTGATCGTTACCCACAAGAAGACAAGTTCGGAGGGGATTTTGGACCGATTTTCGGCTTTACCGCGGGTCAAAATGCG
GCTGCGGACTTTGATTGTTTGGTTGCGTCTGTCTACACTGTTTGCAACTGTCAACAAACAAATGGAGAAAgttaagt
taacttaaccgctgttttgtctttaactacatgatactacacgagtctgtctgttgaaatgttaatccacaaagca
ccctgcaacgcgaaaaggggatcgtggatTTTgaccactgtcacacatttgctagagcagagccagacatgagggcac
tgcagtgaaagggacgaagaaatcccatgttgggtcgttttgattgcgattaaacgttcgaaactgtctttaacgaca
tggtagttatccggactgtgtgcattgcccccaagccagattatcgaccgtttgagtacaacattgatctatTTTgta
gccccgaactggt

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : TALEN target site

Genotyping assay

Primers:

insra_forward: 5' CTGATCGTTACCCACAAGA 3'

insra_reverse: 5' ACCAGTTCGGGCTACAAA 3'

PCR program:

95°C 5min
95°C 30 sec
58°C 30 sec } 30 Cycles
72°C 30 sec
72°C 8min
4°C hold

Product size: 480 bp

The sequencing results of the CZ1260(+/-):

CLUSTAL format alignment by MAFFT FFT-NS-i (v7.397)

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WT          CTGATCGTTACCCACAAGAAGACAAGTTCGGAGGGGATTTTGGACCGATTTTCGGCTTT
CZ1260      CTGATCGTTACCCACAAGAAGACAAGTTCGGAGGGGATTTTGGACCGATTTTCGGCTTT
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WT          ACCGCGGGTCAAAATGCGGCTCGGACTTTGATTGTTTGGTTGCGTCTGTCTACACTGT
CZ1260      ACCGCGGGTCAAAATGCGGCTCGGACTTTGATTGTTTGGTTGTTT-----TGT
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WT          TTGCAACTGTCAACAAACAAATGGAGAAAgtaatgtaacttaaccgctgtttgtcttt
CZ1260      TTGCAACTGTCAACAAACAAATGGAGAAAgtaatgtaacttaaccgctgtttgtcttt
*****

WT          aatactacatgatactacacgagtctgtctgttgaaatgtaatccacaaagcacctgc
CZ1260      aatactacatgatactacacgagtctgtctgttgaaatgtaatccacaaagcacctgc
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Reference:

Binyuan Yang, Gang Zhai, Yulong Gong, Jingzhi Su, Dong Han*, Zhan Yin, Shouqi Xie, Depletion of insulin receptors leads to b-cell hyperplasia in zebrafish. Science Bulletin, 2017. 62(7): 486-492 (Journal)