

## ***nr5a2*<sup>ihb193/+</sup> (AB) (CZRC catalog ID: CZ 294)**

### **Nature of the mutation**

Between 161bp and 170bp of the wild-type *nr5a2* coding sequence, 10bp is deleted and 6bp is inserted in exon 2. The mutated *nr5a2* codes for a truncated protein containing 59 aa, of which 517 aa are identical to wildtype *nr5a2*.

### **Sense Strand Sequence**

cacgtagaagttagccgaagagatggttacaattgaaatattgctttaaagatggttttcaatcattgaagctctgaattgtt  
tagtctttcgttgaggattcaaacagttctgttttttagctgcttcttaactttcaaacgaacctataacacatgacagcc  
aaaccattttttttttgtcaaaaaataaattaattaattgaataggttctgtaatgtaaattgttactcactgtattcactcttat  
gttttagCCCCACAGTTTAAAATGATGGACTACTCCTACGACGAAGACTTGGAT  
GAGATGTGTCCAGTGTGCGGAGACAAGGTGTCCGGATATCACTATGGGTTG  
CTGACCTGTGAGAGCTGTAAGgtgtgtaacatcagctgttttatcttctcaactggtcaccctaaaaaagc  
attgttctgataggagaaaaacaattgtggacagacaaagcttacgttttagaatattgttggtgttgaagagagaagag  
aactattttaatacctgtgttgacctgaaggtgtgc

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg : Forward/Reverse primer

atcg : TALEN target site

### **Genotyping assay**

#### **Primers:**

**CZ294\_forward:** 5' cacgtagaagttagccgaagag 3'

**CZ294\_reverse:** 5' gcacaacctcaaggtcaacac 3'

#### **PCR program:**

95°C 5min

95°C 30 sec

58°C 30 sec

72°C 30 sec

72°C 8min

4°C hold

} 30 Cycles

**Product size: 572bp**

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## The sequencing results of the CZ294 (+/-)

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WT          ATGCTGCCTAAAGTCGAGTCAGAATATCTGGGACTCGCTCGATCGCATGGGGAACAGGGG
nr5a2(-10+6bp) ATGCTGCCTAAAGTCGAGTCAGAATATCTGGGACTCGCTCGATCGCATGGGGAACAGGGG
*****

WT          CATATGCCTGAAAACATGCAAGCCCCACAGTTTAAAATGATGGACTACTCCTACGACGAA
nr5a2(-10+6bp) CATATGCCTGAAAACATGCAAGCCCCACAGTTTAAAATGATGGACTACTCCTACGACGAA
*****

WT          GACTTGGATGAGATGTGTCCAGTGTGCGGAGACAAGGTGTCCGGATATCACTATGGGTTG
nr5a2(-10+6bp) GACTTGGATGAGATGTGTCCAGTGTGCGGAGACAAGGTGT----GGGTTGCTATGGGTTG
*****

WT          CTGACCTGTGAGAGCTGTAAGGGCTTCTTCAAGCGCACGGTGCAGAACAACAAGCGCTAC
nr5a2(-10+6bp) CTGACCTGTGAGAGCTGTAAGGGCTTCTTCAAGCGCACGGTGCAGAACAACAAGCGCTAC
*****
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### Reference:

Zhai G, Song J, Shu T, Yan J, Jin X, He J, Yin Z. LRH-1 senses signaling from phosphatidylcholine to regulate the expansion growth of digestive organs via synergy with Wnt/ $\beta$ -catenin signaling in zebrafish. *J Genet Genomics*. 2017 Jun 20;44(6):307-317.