

cdc6^{*tsu4305/+*} (CZRC catalog ID: CZ404)

Nature of the mutation

tsu4305 mutant embryos carry a C to A single nucleotide substitution in the 9rd exon. This C to A mutation is predicted to cause an Ala to Asp substitution in Cdc6 protein

Sense Strand Sequence

CCGCTGTGTCAGGAGATGCTCGCAAAGCACTGGACATCTGCAGgtgaacaaactgactgtataaatg
gtaacacaagagtgcattgagttttgtaaagttctacatctgtttgtctgtctatcagGAGGGCTGTGGAGATTGTGGA
AGCAGGCGACAGGTCTAAAATGGCATCCGAACCTACAGCCAGCTCTAAAGgtagtaattactgt
actgtattttaaaagaaaagaataaccatgtagaaattaatgaagagaggagaaaaaacactgagtagaaatgtgtattctgaattaattcaa
aatatagttaaatgttcataaatattcctaaacattgtctctccct

Uppercase: Exon/coding sequence

Lowercase: intron/noncoding sequence

atcg: Forward/Reverse primer

Genotyping assay

Primers:

CZ404_forward: 5' CCGCTGTGTCAGGAGATGCT 3'

CZ404_reverse: 5' AGGGAGAGGACAATGTTTAG 3'

PCR program:

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

Product size: 357 bp

The sequencing results of the CZ404:

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

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WT          GAGGCTGTGGAGATTGTGGAAGCAGGCGACAGGTCTAAAATGGCATCCGAACCTACAGC
CZ404       GAGGCTGTGGAGATTGTGGAAGCAGGCGACAGGTCTAAAATGGCATCCGAACCTACAGC
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WT          CAGCTCTAAAG
CZ404       CAGCTCTAAAG
*****
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Reference:

Yao Lk, et al. Human Molecular Genetics 26:4168-4180