

foxc1a^{nju18/+} (AB) (CZRC catalog ID: CZ274)

Nature of the mutation

The *nju18* allele contains 9-bp deletion plus 2-bp insertion which predicted to encode a truncated Foxc1a protein with only the first 50 aa of Foxc1a plus 20 mutated aa. Between 157 bp to 165 bp of the wild-type *foxc1a* coding sequence, CCGCCAGCA, is mutated to AG.

Genotyping assay

Primers:

nju18_forward: 5' CGCTATTCCGTCTCCAGTCC 3'

nju18_reverse: 5' CTTGTCCTTCATGGCGTCT 3'

PCR program:

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

Product size: 566 bp

The sequencing results of the parents:

CZ274(+/-):CGGCCACGACCAGTACC[**CCGCCAGCA/AG**]TGGCGAGGGCAT

WT	ccgttttggagagcagtcacatgcaggcgcgctattccgtctccagtcaccaactcgctggga
nju18 (+/-)	ccgttttggagagcagtcacatgcaggcgcgctattccgtctccagtcaccaactcgctggga *****
WT	gttgtccgtacatcagcagcgaccacaaagtattaccgagccgccgcccggaggggggtac
nju18 (+/-)	gttgtccgtacatcagcagcgaccacaaagtattaccgagccgccgcccggaggggggtac *****
WT	accggcatgccagcccccatgaccatgtactctcacggcccacgaccagtaccgcc
nju18 (+/-)	accggcatgccagcccccatgaccatgtactctcacggcccacgaccagtacc----- *****
WT	agcatggcgagggcatatgggccaatacactccacagccgagcctaaggatatggtgaaa
nju18 (+/-)	--agtggcgagggcatatgggccaatacactccacagccgagcctaaggatatggtgaaa .*****
WT	ccccgtacagctacattgcgctcatcacaatggcaatccacgtcggggcttttgta
nju18 (+/-)	ccccgtacagctacattgcgctcatcacaatggcaatccacgtcggggcttttgta *****

Reference:

Li, J., Yue, Y., Dong, X., Jia, W., Li, K., Liang, D., Dong, Z., Wang, X., Nan, X., Zhang, Q., Zhao,



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Q. (2015) Zebrafish foxc1a plays a crucial role in early somitogenesis by restricting the expression of aldh1a2 directly. *J. Biol. Chem.* 290(16):10216-28