

***Csf1ra*^{j4e1/j4e1} (AB) (CZRC catalog ID: CZ66)**

Nature of mutation

J4e1 allele was a mutant line, induced by the point mutagen ethyl nitrosourea (ENU) in the AB genetic background. There is a single, non-conservative (V615M, Val-to-Met) substitution in predicted exon 12, within the first kinase domain at a site that is relatively invariant in all receptor tyrosine. *Panther* mutant larvae have normal melanocyte and iridophore patterning, lacking the yellow cast of wild-type larvae that resulted from defected xanthophore development. *Panther* mutant adults have poorly formed stripes anteriorly and lack stripes posteriorly (Parichy, Ransom et al. 2000).

Genotyping assay

Primers:

J4e1_forward: 5' GAATTTCAAAGCACTTCATGG 3'

J4e1_reverse: 5' TCTAGCAAGAGATAAAAGGTGTC 3'

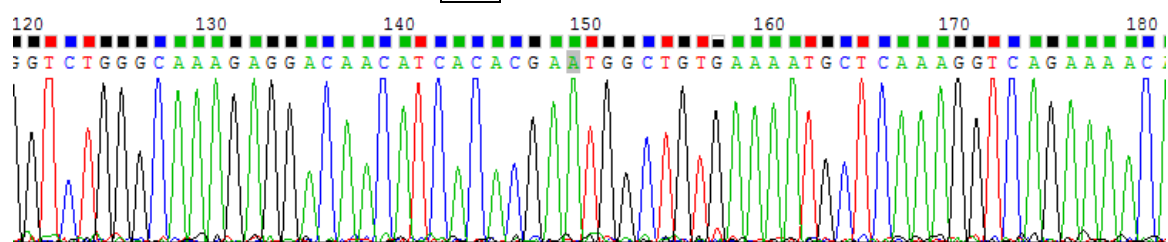
PCR program:

94°C	4min	} 30 Cycles
94°C	30 sec	
55°C	30 sec	
72°C	30 sec	
72°C	5min	
4°C	hold	

Product size: 400 bp:

The sequencing results of the parents:

CZ66 (-/-) AACATCACACGA**GTG**GCTGTGAAAATGCTCA (wild-type)



Reference

Parichy, D. M., D. G. Ransom, et al. (2000). "An orthologue of the kit-related gene *fms* is required for development of neural crest-derived xanthophores and a subpopulation of adult melanocytes in the zebrafish, *Danio rerio*." Development **127**(14): 3031-3044.