

Stuart Kettler

Assignment 6

1. 15 splice variants
2. The longest splice variant has 29 exons.
3. 29 introns in the longest splice variant
4. gene is on the Chromosome 13
5. The gene synonyms are BRCC2, FACD, FAD, FAD1, FANCD, FANCD1, XRCC11.
6. Ostrich have one ortholog of this human gene BRCA2
- 7.

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GCTCCTGGTTGTCTACCCATGGACCCAGAGGTTCTTTGACAGCTTTGGCAACCTGTCCTC
TGCCTCTGCCATCATGGGCAACCCCAAAGTCAAGGCACATGGCAAGAAGGTGCTGACTTC
CTTGGGAGATGCCACAAAGCACCTGGATGATCTCAAGGGCACCTTTGCCCAGCTGAGTGA
ACTGCACTGTGACAAGCTGCATGTGGATCCTGAGAACTTCAAG
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8. The length of first intron is 122 base pairs.
9. narwhal genome has 723 pseudogenes in the
10. ZAR1L (ENSG00000189167) and N4BP2L1 (ENSG00000139597) flank the gene BRCA2
11. the Betta fish genes rnf32 (ENSBSLG00000001314) and rbm33a (ENSBSLG00000001275) flank the sonic hedgehog gene.
12. one copy of shh
13. There are four copies of shh in Atlantic salmon.
14. There are 26 genome assemblies
15. 11 genomes are assemble into chromosomes.
16. Bos taurus has 58 chromosomes, 29 pairs
17. Chromosome 1
18. 1,115 annotated microRNAs.

19. Pasquier J, Cabau C, Nguyen T, Jouanno E, Severac D, Braasch I, Journot L, Pontarotti P, Klopp C, Postlethwait JH, Guiguen Y, Bobe J. "Gene evolution and gene expression after whole genome duplication in fish: the PhyloFish database." BMC Genomics. 2016 May 18;17:368. doi: 10.1186/s12864-016-2709-z. PMID: 27189481; PMCID: PMC4870732.

20. 1 mdllakasvl lllllslsna qtdnmeeaen gsskeeides eladvssiif rmnnnsmeel

61 legdlvlpkt rnamkcfgap dscrwpkssn givkvpyvvs dnyesdeket irnamkefae

121 ktcihfvprn neraylslep rfgcksmmgy vgdkqvvlq rfgcikhavi qhellhalgf

181 yhehtrsdrd qhvinweni ikdfthnfdk ndtdnlgtpy dygsimhygr tafgkdrket

241 itpipnpkaa igqtermsdi dilrvnklyk c