

Rice Genome Annotation Project - MSU Rice Genome Annotation (Osa1) Release 7

Showing 2.5 kbp from Chr5, positions 24,067,694 to 24,070,193

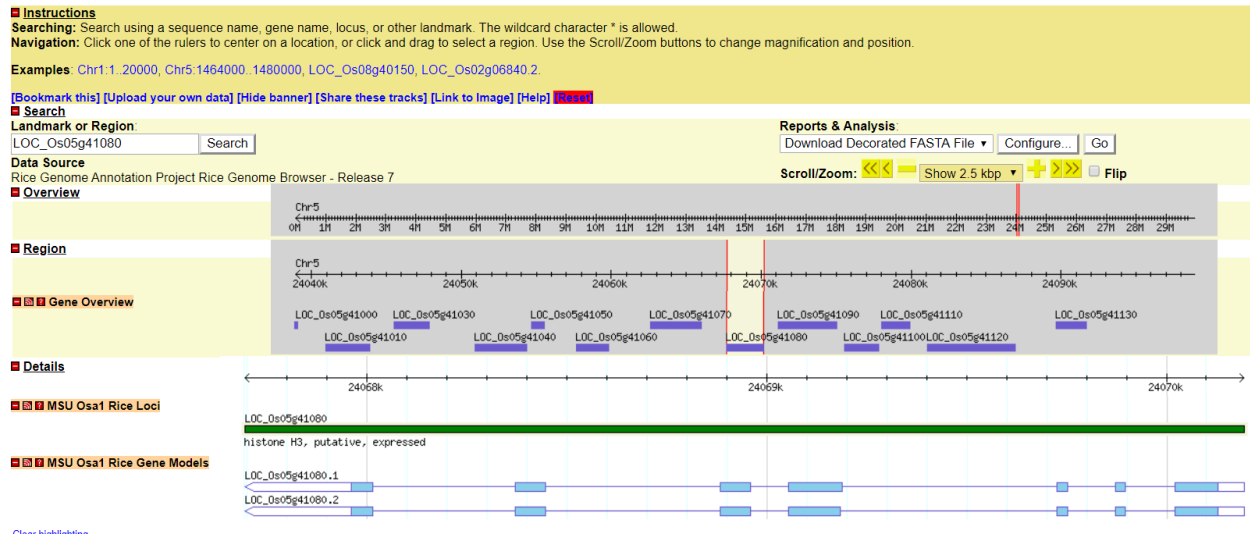


Figure S1: Snapshot of the initial search on MSU-RGAP for *OsCENH3* locus reveals the coordinates of the gene on Chromosome 5

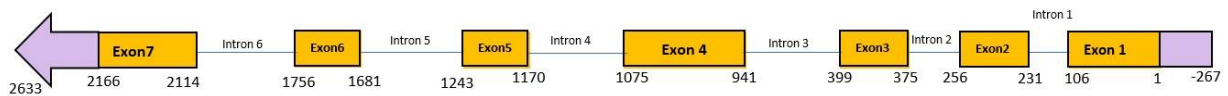


Figure S2: Schematic representation of the gene *OsCENH3*. It has seven exons and six introns. The numbers ranging from 1 (ATG) to 2166 (TGA) signify the length of the gene and positions of exons on it. Other numbers mark preceding and trailing regions included for designing overlapping primers.

> trimmed-sequence-cenh3+regions

AAAAAAGGAAAAAA~~AAACAAGAAACATAACTCGATCACT~~CGACCGTTGGACACATACGCGCGCGTGGCGTTGTG
GCCTTGTGGGATGTGAAAAACGCAACTGACACAGACTGACCCATAAATAACAACAAAACCAAGGGCCTAACCGCA
AAAAGGGATCCCCAACCCAAAACAAAAGAAACCCTCTCCGTTTGCCTCCACGCCGCTTCAGTTTGAAAACCCAC
CGCCACGTCGCCGCCGCCGCCGCCGCCGCCGACGCCGAG~~ATGGCTCGCACGAAGCACCCGGCGGTGAGGAA~~
GTCGAAGGCGGAGCCCAAGAAGAAGCTCCAGTTCGAACGCTCCCCTCGGCCGTCGAAGGCGCAGCGCGCTGGTG
GTGAGCGCGCGCTCTCTCCCCCTCTGCGTTTCTTTTTTTTTTCTTTTCTTTCAATGGCGGTGGATGGTGAAGCTT
ATGCCCCCCCCCCCCCTTCCCGCTCTTGCTTGCCCCCTTGACAGGCGGCACGGGTACCTCGGCGACCACGGTGCG
TGCGGGAGCGGGTCTTTCGTTTGGTGATTTTTGATTTGTGGGGGATATGTTTTGTTTGTATCTTGGCTGGAT
GGATGGCTTGCTCACCACCTGTTTGATGGAATGCAGAGGAGCGCGGCTGGAACATCGGCTTCAGGTGCGTTCTCT
TGGGGGGGTTTCTAGGGTTATTCATGGGCTCGTTGGAGCTTTCTTTCTGTCTCTTGATTCCGGGGGACCTGAG
GGGCTCAATGTGTCCCTTTTCTGCTCTGTTTAC~~CGGTGTGCTGTACTTTCCT~~CATCGTTGTTTTCTGAATATATTATA
AGAACAGTAGTTGCAGAAAGATCTTCAATTGCTCATCAGTCAAAGCTTTTCTGTTTTCTATTCTGAAATAATAGCAA
ATCCAGTTTGGTCCATGGAGGGGTTATCTGAAACATTATGACCATAAAACATGGTATTAAGCATTGCTAGCCAAGA
AATGTGTGGTTTTTAGACACGATGTTGATAGGTGATTTTTATGCTCATCCATTATTAGTCTTGCATCGTGGGAACT
GATTTAGTAACTTTCTTTA~~GTGTATGGTTCAAATAGCGTCT~~TTCTACCTAGATGATAGGTATCCATATGGAAGT
CTTGGCTTTGGAATTGCTCTCCTTTGTCTCCTGTGATTAAATAACTTTAACATGTGTGTGAAGCAGGGACGCCTA
GGCAGCAAACGAAGCAGAGGAAGCCACACCGCTCCGTCACGGCACAGTGGCACTGCGGGAGATCAGGAAATTT
CAGAAAACCAACCGAACTGCTGATCCCGTTTGACCATTTTCTCGGCTGGTGGGTACATCCTGAACCTGCCTTCTCTC
TATATCAAATATTTCTAGTGCAAACCTGTGTGATGGAAGCTTTTTGTGCCGATAAAATTTGCAGGTCAGGGAGAT
CACTGATTTCTATTCAAAGGATGTGTCACGGTGGACCCTGAAGCTCTCCTTGCATTGCAAGAGGTCAGTGGTCAA
ACCTGTTTATTATAAGTTTACAACCTGATGGCTTAGTTAGGGAAGGGTCAGACTGAATTATACTGTTTAAATTCCATT
CTGCTTCAAGACTCAAGTCACGGCTCAAGAGTGAACTGAAAAATGTACAAATCTCCATGATCAATAAAATGAAT
ATCTCTGTGTGTTGATTATGAGTCAGATTGCTAAATTATTATCCTTTTTCAGTAGAACACCTATAT~~ACTACAAATAT~~
~~GCAACCTCCCT~~ATTTTGTGTGTCTGTTCAAGATTGCTATCATAGAGTATACCAATTTCAGTTCCCTCTTTCCAGCCA
TGCTGTTTCTGCATAACCAGGAAAAGGAACAAAGAGCTGACTTAATTCTCACAAAATAAATTATGTTATTTACTTG
CTGTCCTGCAAATTTCCAGTGTTTTCCCTCTCCTG~~CAGGCAGCAGAATACCCTTAGT~~GGACATATTTGAAGTGT
AAATCTCTGCGCCATCCATGCTAAGCGTGTTACCATCAGTAAGTTGTGATTCTGAATGAACTTTTCTTTCTTTTCT
CCCTTTATATTATTATGCTAAATGGATATCATATATGCCACAGCCTACATGATATCATATACGCATCCACTTCAAAG
CATTCTATTTTTTATAGGAATAACATTCTAATTGCAGGATGATTCTTAATACATGTGTTTATTTAATGTCATATCT
AGTTTTCACTCTTAAATTTATCATGATTATTGATTAAACATAGGGAGAATTAGTTGGTTTGTGAGTTTGTAGGTG
TGAAATATGCTGCTTGCTATTCCTGTAAAGCTTATCAGCGTTGTGATTGTGTGGTTTAACAAATAAACGTTTGTCT
GCAGTGCAAAGGACATGCAACTTGCCAGGCGTATCGGTGGGCGGAGGCCATGGT~~GAAAA~~TTTGTTCGAGGCC
ATGCAGCATGATGGACAAGGAGCAACATGTGTCGTTGATTAAACATTTTAGAAAGTAGTGTAGATGTATCTTCACAT
AGGGATCAACTTACCCTTCGTTCCCATTTCAATTCAGTTGATGTTAGTATTACCTTTTGTCCATTTGGATTGGTCG
AATTCAGGATTTTCATCAAACAGTCGATTGTGAAATGTGAACCAGGAATTGTTGTGTTGATTGCAATAATGGGTCC
TCTACCTGCTTCTTCATCAGATATTTGAACAGCTGTTTTCAAGAACCCTGTGCTCAAGGAACACAGGCAGTTGTT
GAGTGCAGAGGACCTTGAAATATTTCTCCAACCCCATATATTGCACTCATGATTGTTATTGACACAATGTTACAA
AGTTA~~CTGGATCTAGATGGAACAAG~~TGGCAAGATGGAATAATGGCAGGATCTACACGGAAGCCA

Figure S3: Sequence of the gene in which primer binding regions have been highlighted. ATG in green represents start codon and TGA in red represents stop codon. The binding site for primer pair cenh3-p3b is highlighted in pink; for primer pair cenh3-p2a in purple and that of primer pair cenh3-p1a in blue.

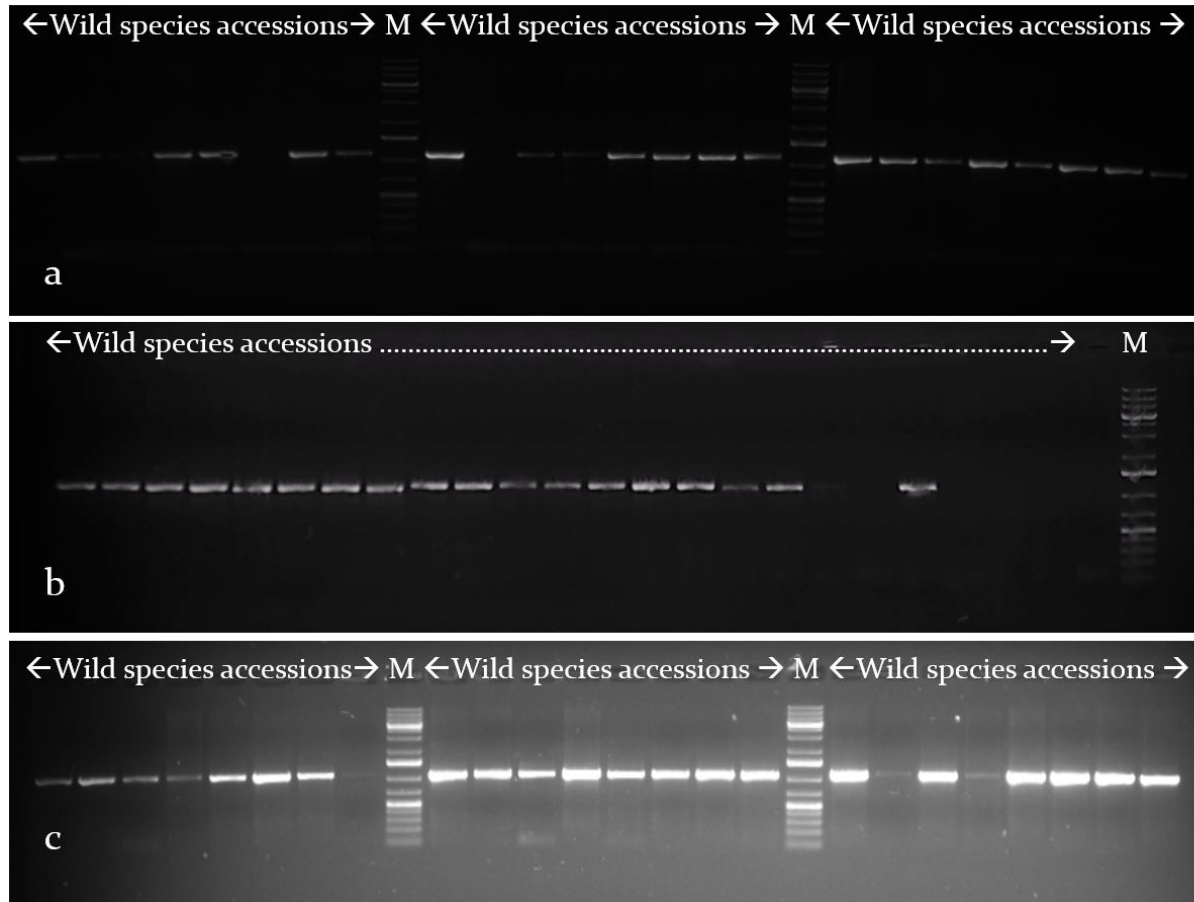


Figure S4: Amplification profile in different wild species using primer pairs (a) *cenh3p1a*, (b) *cenh3p2a* and (c) *cenh3p3b*. M = Thermoscientific Generuler 1kb plus ladder

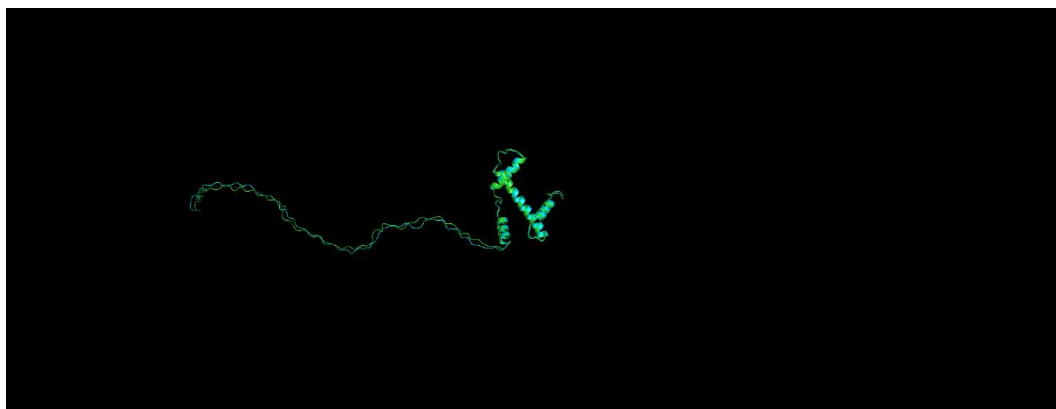


Figure S7: Alignment of rs# 175193154 (Blue) with our reference OsCENH3 (green)

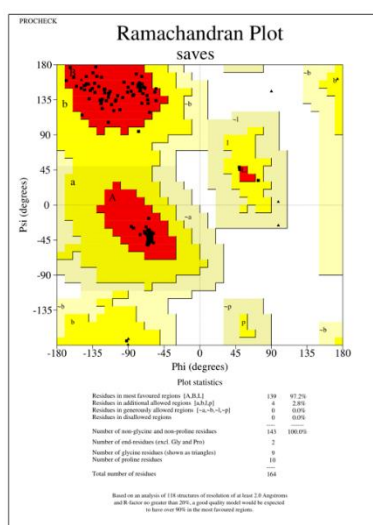


Figure S8: Ramachandran Plot of OsCENH3

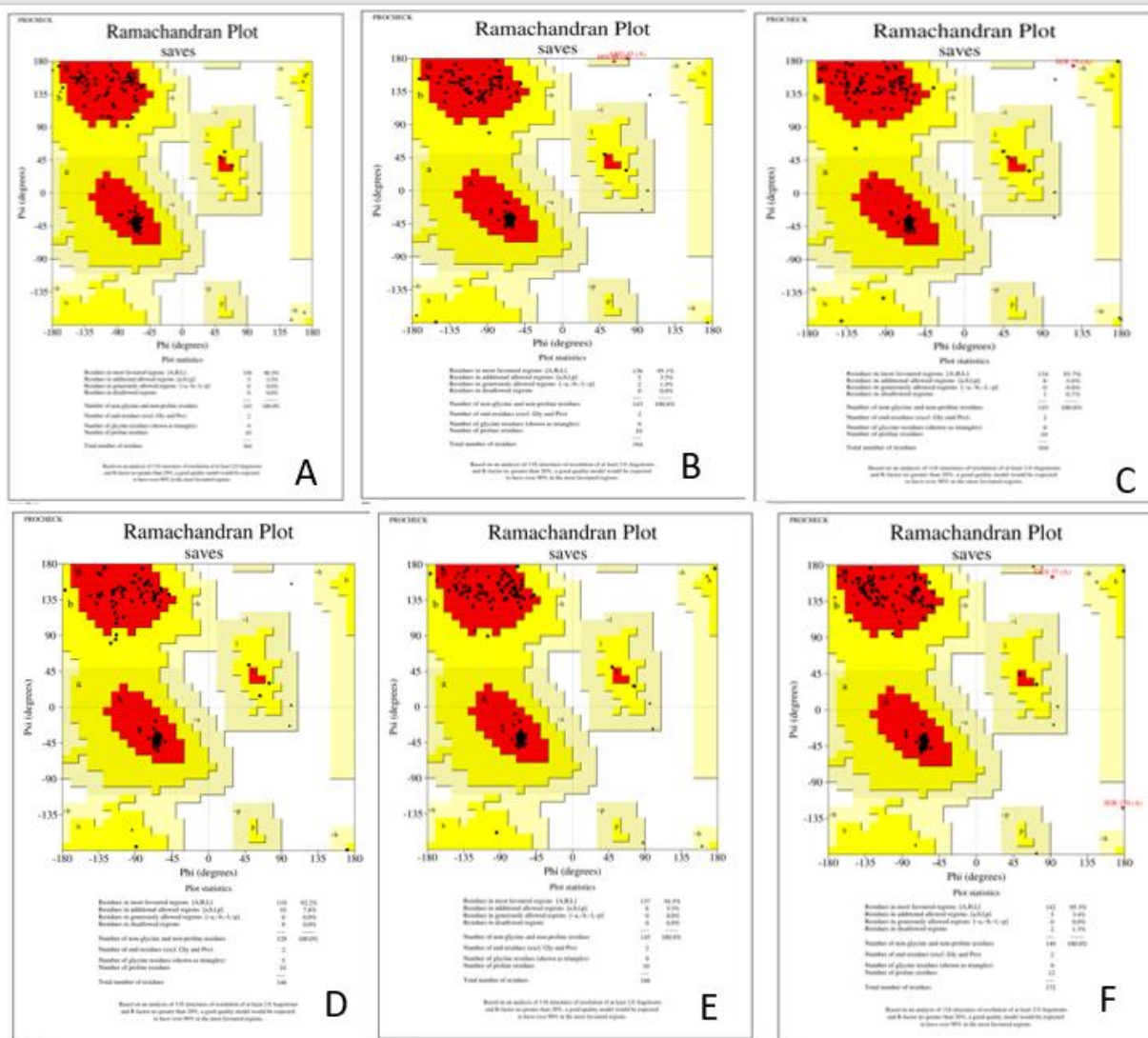


Figure S9A: Ramachandran Plot of H5, B: Ramachandran Plot of H10, C: Ramachandran Plot of H12, D: Ramachandran Plot of Hδ, E: Ramachandran Plot of Hθ, F: Ramachandran Plot of Hζ.

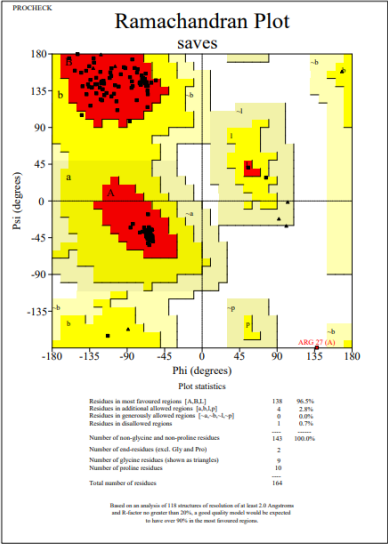


Figure S10: Ramchandran plot for rs# 175193154

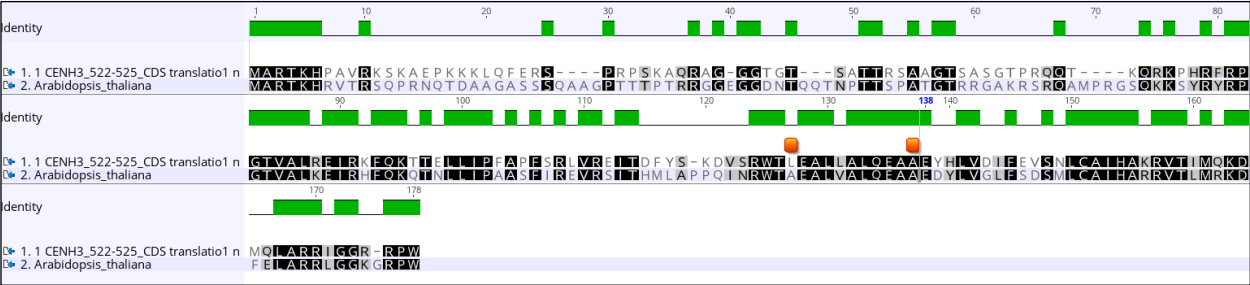


Figure S11: Protein Alignment of OsCENH3 with *Arabidopsis thaliana* CENH3