

A somaclonal line *SE7* of finger millet (*Eleusine coracana*) exhibits modified cytokinin homeostasis and increased grain yield

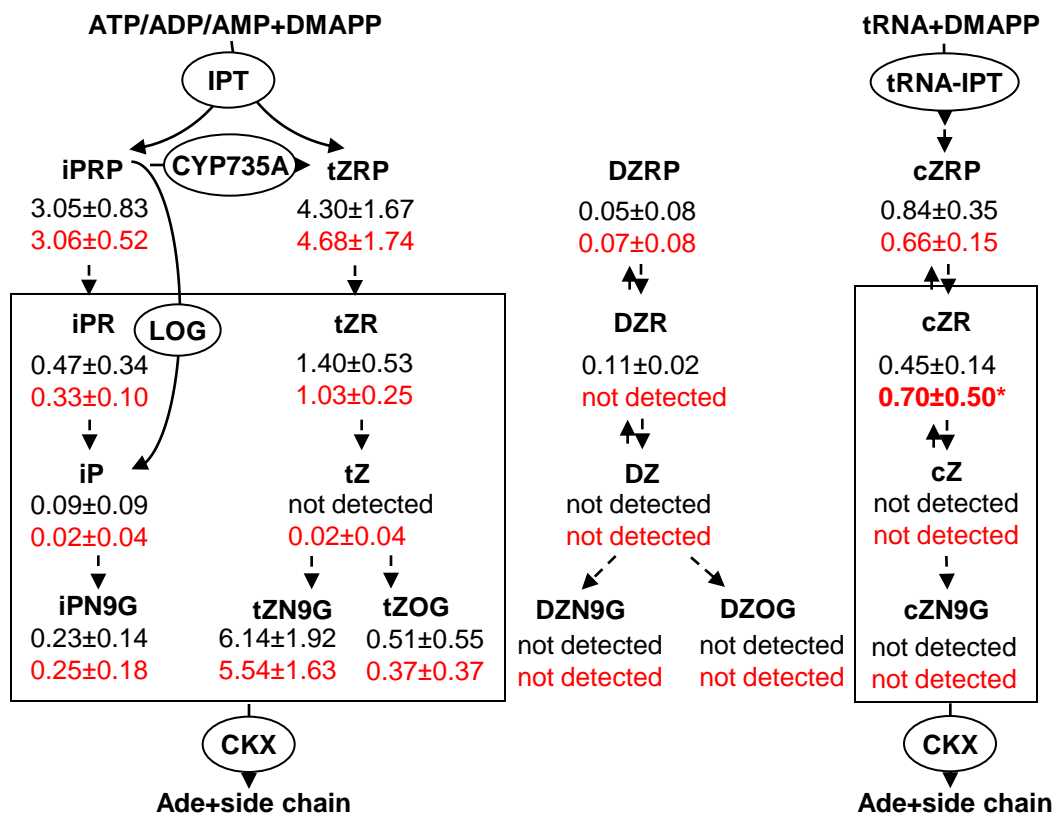
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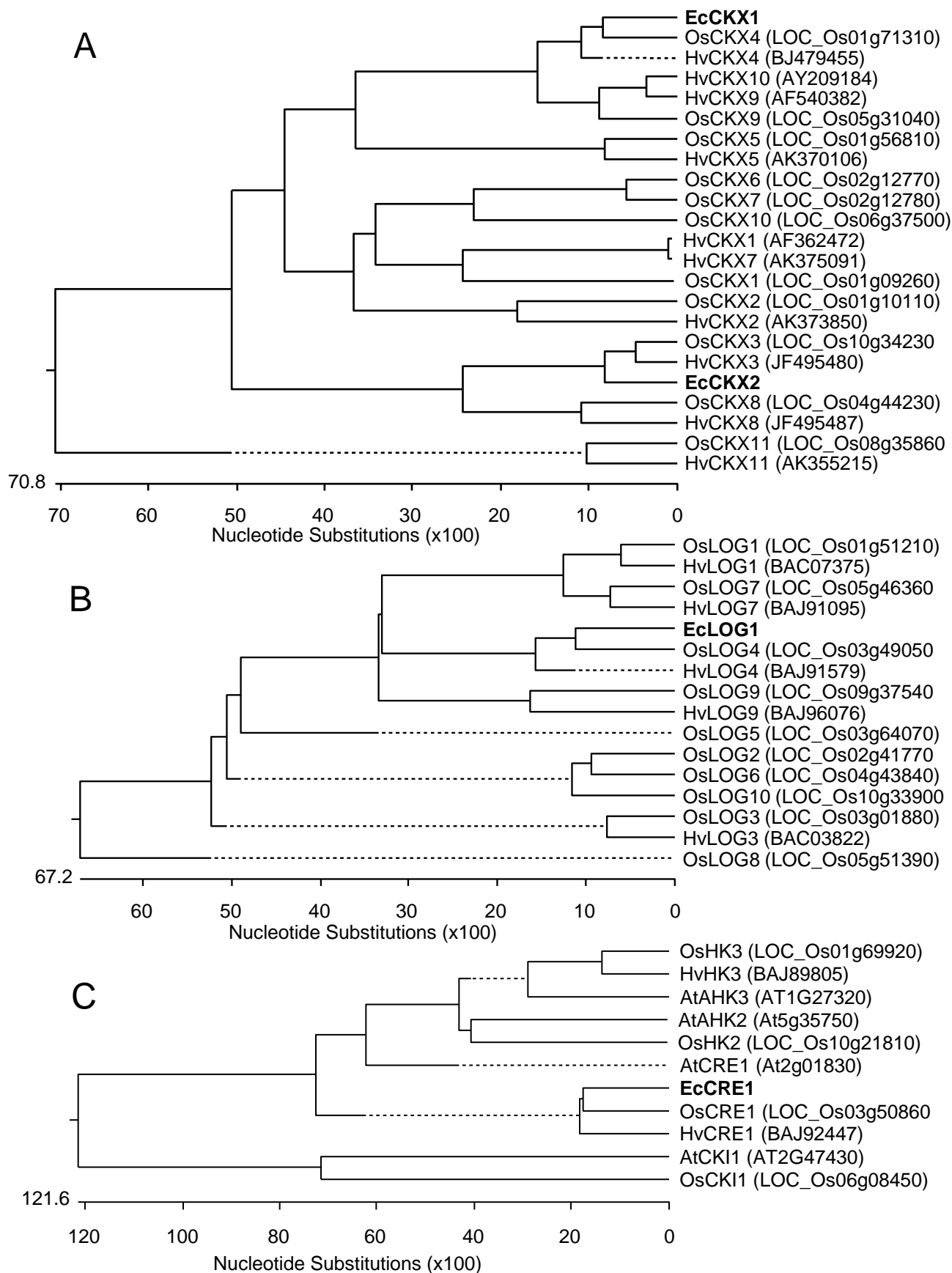
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Stage B



Supplementary Figure S1. Levels of cytokinins measured in young inflorescences of *SE-7* mutant and wild type of finger millet at the stage of flower development (stage B). Wild type cytokinin contents are depicted in black; those of the *SE-7* mutant in red. Data represent mean values (in pmol/g fresh weight) ± SD. Statistically significant values are written in bold (* $P < 0.05$; calculated by Student's *t*-test). Key enzymes involved in cytokinin biosynthesis and degradation are shown in cycles. Cytokinin derivatives shown in a box are potential targets for CKX enzyme (Frébert et al., 2011). Abbreviations: CKX, cytokinin oxidase/dehydrogenase; cZ, cis-zeatin; cZNG, cis-zeatin 9-glucoside; cZR, cis-zeatin riboside; cZRP, cis-zeatin ribotide-phosphate; DZ, dihydro-zeatin; DZNG, dihydro-zeatin 9-glucoside; DZOG, dihydro-zeatin O-glucoside; DZR, dihydro-zeatin riboside; DZRP, dihydro-zeatin ribotidephosphate; iP, *N*6-(Δ^2 -isopentenyl) adenine; iPR, iP riboside; iPNG, iP 9-glucoside; iPRP, iP ribotidephosphate; IPT, adenosine phosphate-isopentenyltransferase; LOG, LONELY GUY; tRNA-IPT, tRNA-isopentenyltransferase; tZ, trans-zeatin; tZNG, trans-zeatin 9-glucoside; tZOG, trans-zeatin O-glucoside; tZR; trans-zeatin riboside; tZRP, trans-zeatin ribotide-phosphate.



Supplementary Table S1. Primers used in cloning experiments and for qRT-PCR analyses.

Gene and Primer Name	PCR Product Size, nt	Sequence
Primers used for gene cloning		
EcCKX1		
EcCKX1dir	1391	5'-TGCGCCTCGACGGCCATTTTCAG-3'
EcCKX1rev		5'-GGATCGTACGATTGCCCCTTCC-3'
EcCKX2		
EcCKX2dir polyT	1758	5'-CACCACCATCGCTGCGTCCAGT-3' 5'-GTTGGGTNTTTTTTTTTTTTTTTTTTTT-3'
EcLOG1		
EcLOG1dir polyT	957	5'-CGACAAGGTTGTGGAGAGCGG-3' the same as above
EcCRE1		
EcCRE1dir	706	5'-GTGGAAGTGGCATTGGATTGAGCAT-3'
EcCRE1rev		5'-CTCCACCTTTGCCCATATTTCTTCA-3'
Primers used for qRT-PCR analyses		
EcCKX1		
qCKX1-f2	72	5'-GCGCCCTACACGACACAACAGC-3'
qCKX1-r2		5'-CGCCCTTCCGTTCAATGTCTCC-3'
EcCKX2		
qCKX2-f2	51	5'-GCTTCCTCTCCGGCTCATCTTT-3'
qCKX2-r2		5'-CTCCCCTGGCTGCCACTGTCAC-3'
EcLOG1		
qLOG1-f1	144	5'-GCTGCGCGGGACATTTTCGTA-3'
qLOG1-r1		5'-GGCAGCGGCGTCCTTATCTCC-3'
EcCRE1		
qCRE1-f2	139	5'-TGTTGCATTCTCTGCCATCCTG-3'
qCRE1-r2		5'-GCCAGTTCAGTGGAGCCAACAA-3'
actin		
qactin_u	171	5'-ATGGTGGGGATGGGGCAGAAG-3'
qvactin_r		5'-CTCCTCCGGGGCAACACGAA-3'