



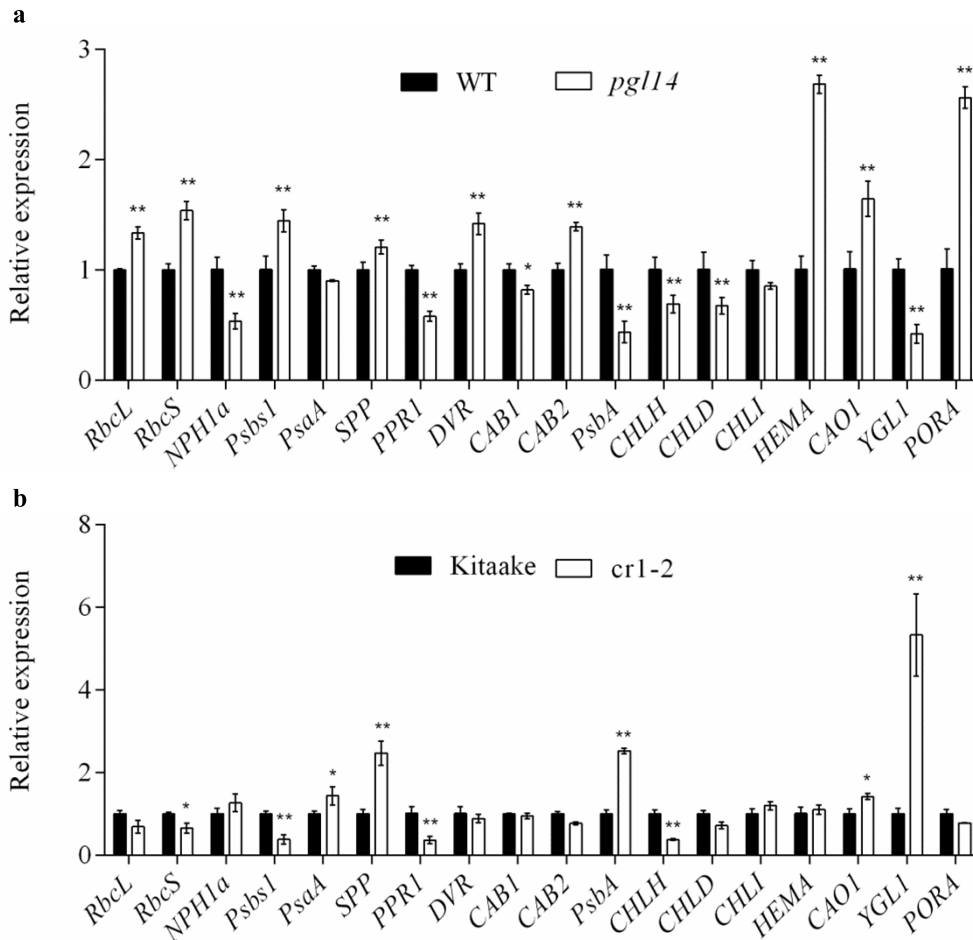
ChloroP 1.1 Server - prediction results

Technical University of Denmark

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### chlorop v1.1 prediction results #####  
Number of query sequences: 2
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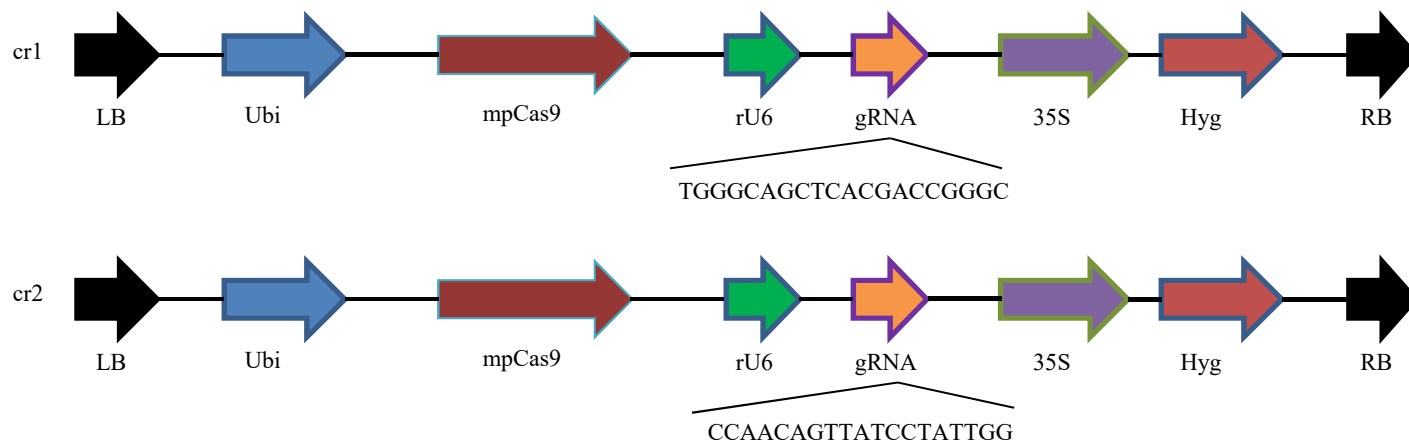
Name	Length	Score	cTP	CS- score	cTP- length
OscpSRP54a	550	0.590	Y	11.938	68
OscpSRP54b	557	0.559	Y	11.938	73

Supplementary Fig. 1 Subcellular localization prediction of OscpSRP54a and OscpSRP54b using ChloroP program. Chloroplast transit peptides (cTP) were identified in the sequences of OscpSRP54a and OscpSRP54b.



Supplementary Fig. 2 Expression of genes associated with chlorophyll biosynthesis and chloroplast development.

(a) The expression of genes associated with chlorophyll biosynthesis and chloroplast development in *pgl14* and WT. (b) The expression of genes associated with chlorophyll biosynthesis and chloroplast development in *cr1-2* and wild type Kitaake. The transcript levels of all tested genes are normalized to the levels of *Ubq* (*LOC_Os03g13170*). The values are means \pm SD ($n = 3$). * indicates significance at $p \leq 0.05$; ** indicates significance at $p \leq 0.01$ by Student's *t*-test.



Supplementary Fig. 3 Schematic structure of cr1 and cr2.

LB, Vector left border; Ubi, Ubi promoter; mpCas9, Cas9 protein; rU6, Rice U6 promoter; gRNA, Guide RNA; 35S, 35S promoter; Hyg, Hygromycin; RB, Vector right border.

Supplementary Table S1 details of SSR markers for fine mapping of *pgl14*

Markers	sequence
RM1812F	CCTACCTCCAGTGAGAGCTAACC
RM1812R	ACGTGCATTTGTGTGGTTTAGG
RM26092F	GTCATCGTCGTGGTCGCAGTCC
RM26092R	TCTGGAGTGGCGTTGACTGTTGC
RM26076F	CCTTCTCTCTCCCACATCTCTAGC
RM26076R	CTAGTGAGTCCCACGTGTCAACC
RM26079F	CTTGACGACCTGACCCAAATACC
RM26079R	GTCAATCGTTAGCCATGTGTTGG
RM26085F	GAGTCCAACCGTGTGTTCTTCC
RM26085R	CCGCTATTACTCCGTCAGTTGG

Supplementary Table S2 Primer sequences for vector construction and reverse transcription-PCR

Primer	sequence
PTsF	TCGCTCATCGGCAATGGA
PTsR	TTCCACGGCATTCTTGTTATT
PQfF	CGCGGATCCTGGCTCCCCTTGTCAAATAGAT
PQfR	CGGGGTACCAATACTACCCTGGAAAGAGTGTGTC
SLPGL14F	TCTAGAATGGAGGCCACGGCGCTCAC
SLPGL14R	GGATCCAGAACTAGGGACTGCATCCAGC
SLCr1F	TCTAGAATGGAGGCCACCAGTAGTAC
SLCr1R	GGATCCTCGTCGACGGAAACCGCGCA
BiPGL14F	GGGGTACCTCATGGAGGCCACGGCGCTCAC
BiPGL14R	CGGGATCCCAGAACTAGGGACTGCATCCAGC
BiCr1F	GGGGTACCTCATGGAGGCCACCAGTAGTAC
BiCr1R	CGGGATCCCTCGTCGACGGAAACCGCGCA
BiCSP41bF	GGGGTACCTCATGGCAGCAACAGCCTCCCT
BiCSP41bR	CGGGATCCCAGCGCTGACGAGCTTCTT
BiW67F	GGGGTACCTCATGGAGGCTGTCCTACGACA
BiW67R	TCCCCGGGGCCCGGCGACCGGCGGCGG

Supplementary Table S3 Primer sequences for qRT-PCR

Marker	Forward sequence	Reverse sequence
<i>OscpSRP43</i>	AGAGAACTCCAGCCCTCTCC	GGACACAATACGGTCCACCT
<i>OscpSRP54a</i>	AAAGAGTTGTATGCTGGTCCG	TTTGGCTTCTGTTCTTTCT
<i>OscpSRP54b</i>	GATGGAGGAGGAAGAGGGGA	GCGATGTTGTCCTTCGTCAG
<i>RbcL</i>	CTTGGCAGCATTCCGAGTAA	ACAACGGGCTCGATGTGATA
<i>RbcS</i>	TCCGCTGAGTTTGGCTATTT	GGACTTGAGCCCTGGAAGG
<i>PsaA</i>	GCGAGCAAATAAAACACCTTTC	GTACCAGCTTAACGTGGGGAG
<i>SPP</i>	CGGAGAGGAAACATAATGAC	ATAGGCATTTGTCTTTGTCTC
<i>NPH1a</i>	CACTTGCAACCAATGCGTGA	ATCCGGGAGTTCCTTTGCAG
<i>PPR1</i>	CTAAGACCGAATGACAAATGC	GCACTGCCAACAAGAATACC
<i>PsbS1</i>	CTGAGCCGAAGCCAAAGTTC	ATCCCCGTCTCCAGGTTTCAG
<i>DVR</i>	CGAGCCCAGTTCATCAAGGTGC	CCTCCCGATCTTGCCGAACTCC
<i>Cab1</i>	AGATGGGTTTLAGTGCGACGAG	TTTGGGATCGAGGGAGTATTT
<i>Cab2</i>	TGTTCTCCATGTTCCGGCTTCT	GCTACGGTCCCCACTTCACT
<i>psbA</i>	CCCTCATTAGCAGATTCGTTTT	ATGATTGTATTCCAGGCAGAGC
<i>CHLI</i>	AGTAACCTTGGTGTGTG	AATCCATCAACATTCAACTCTG
<i>CHLD</i>	GGAAAGAGAGGGCATTAG	CAATACGATCAAGTAAGTGTT
<i>CHLH</i>	CTATACATTCGCCACACT	TATCACACAACCTCCAAG
<i>HEMA1</i>	CGCTATTTCTGATGCTATGGGT	TCTTGGGTGATGATTGTTTGG
<i>CAO1</i>	GATCCATACCCGATCGACAT	CGAGAGACATCCGGTAGAGC
<i>YGL1</i>	CAGTCTCCAATGGCCACCT	TGCTTTCATCAGTGGCTGG
<i>PORA</i>	TGTACTGGAGCTGGAACAACAA	GAGCACAGCAAAATCCTAGACG
<i>Ubq</i>	CCCTCCACCTCGTCTCAG	AGATAACAACGGAAGCATAAAAGTC