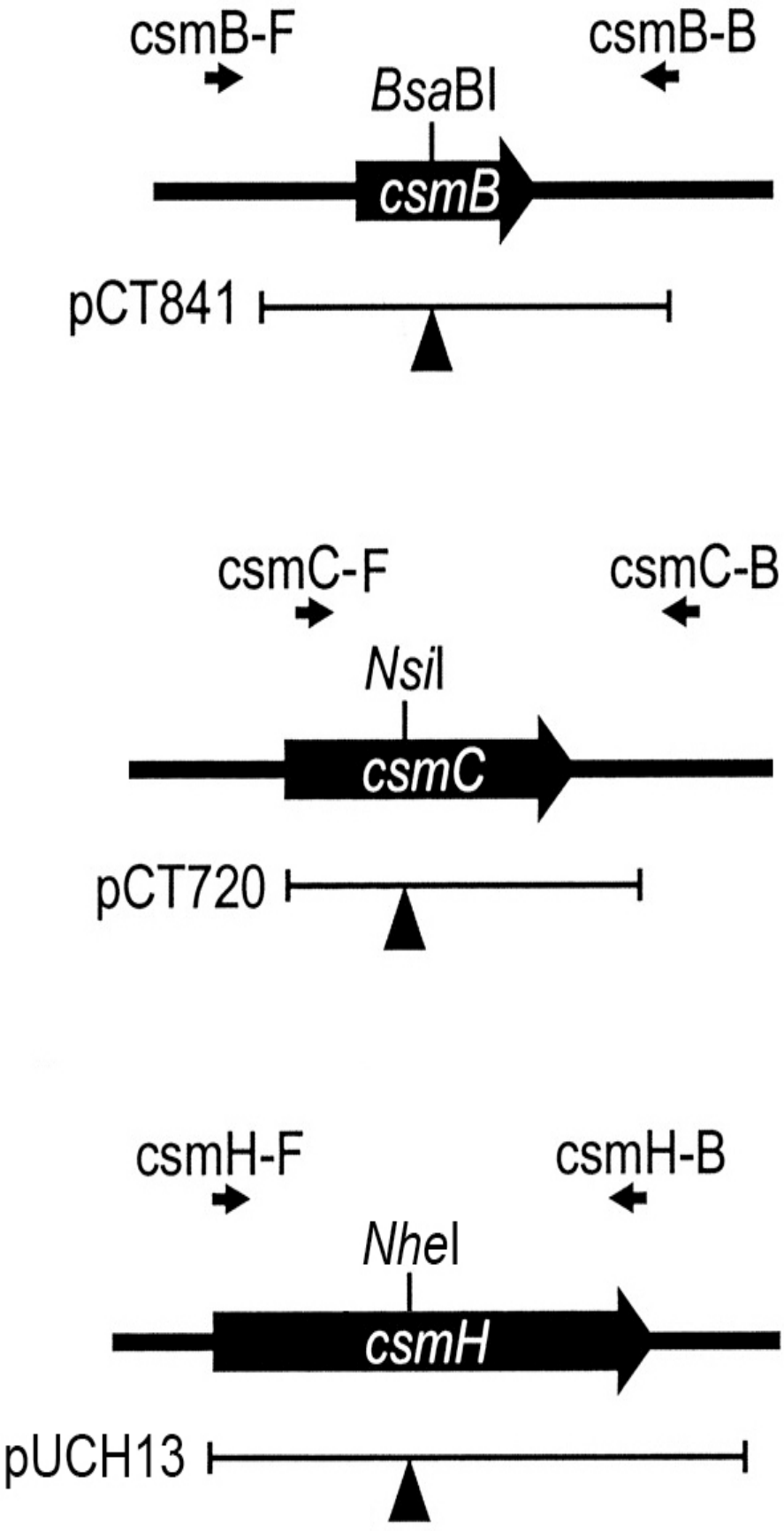
SUPPLEMENTAL FIGURE LEGENDS

Suppl. Fig. 1. Restriction maps showing the construction and structure of the gene inactivation plasmids as well as the relative positions of PCR primers used for verification of segregation.

Suppl. Fig. 2. Absorption spectra of whole cells of the wild type (solid line) and the mutants lacking proteins of the CsmC/CsmD or CsmB/CsmF motif families (dashed lines). Spectra were recorded for cell suspensions at $OD_{600\ nm}$ = 0.1 to 0.2 and were normalized to $OD_{600\ nm}$ = 1. All cells were grown at a light intensity of 30 μmol photons m^{-2} s^{-1} to late exponential phase. Panel A, wild type and the *csmC csmD* mutant; Panel B, wild type and the *csmC csmED* mutant; Panel C, wild type and the *csmC csmD csmH* mutant; Panel D, wild type and the *csmC csmED csmH* mutant; Panel E, wild type and the *csmB csmF* mutant; Panel F, wild type and the *csmB csmF csmH* mutant.

Suppl. Fig. 3. Chlorosome isolation from the *csmB csmF* and *csmC csmD csmH* mutants. Chlorosome were isolated by ultracentrifugation on the 7-47% (w/v) linear sucrose gradients in chlorosome isolation buffer (For other details, see Materials and Methods). Gradient 1: wild type; gradient 2: *csmB csmF* mutant; gradient 3: *csmC csmD csmH* mutant. Chl, chlorosomes; fr2, fraction-2 (for a description of fraction-2, see text).

Suppl. Fig. 1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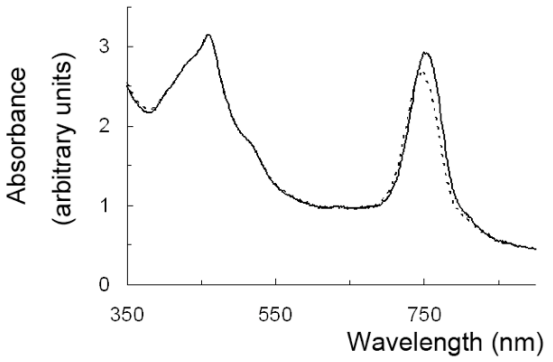
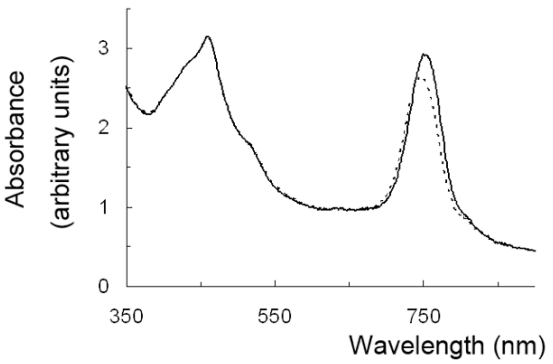
Suppl. Fig. 2



A



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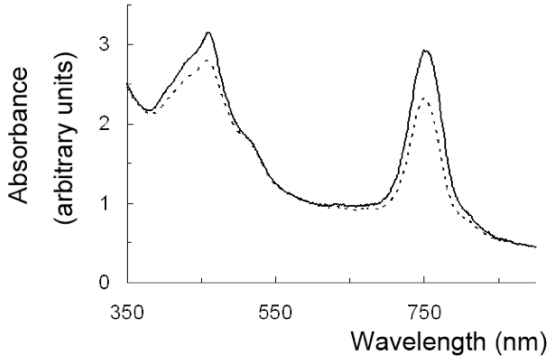

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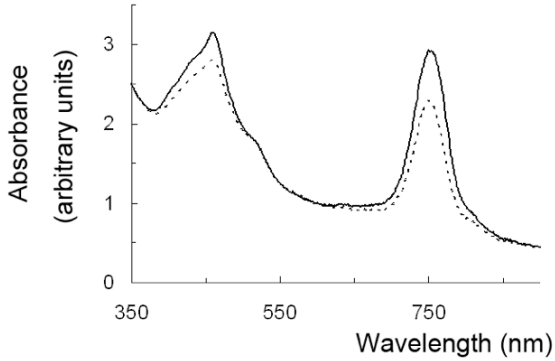

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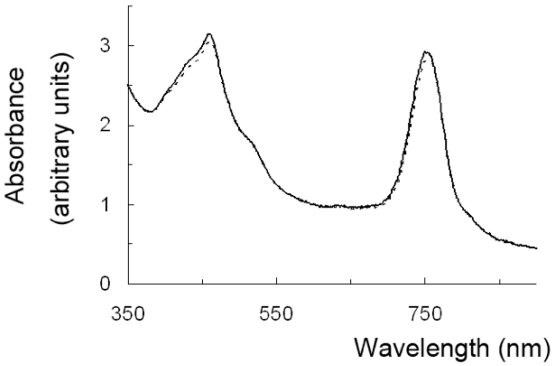

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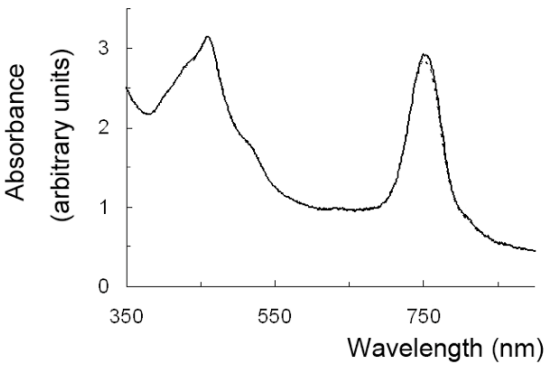
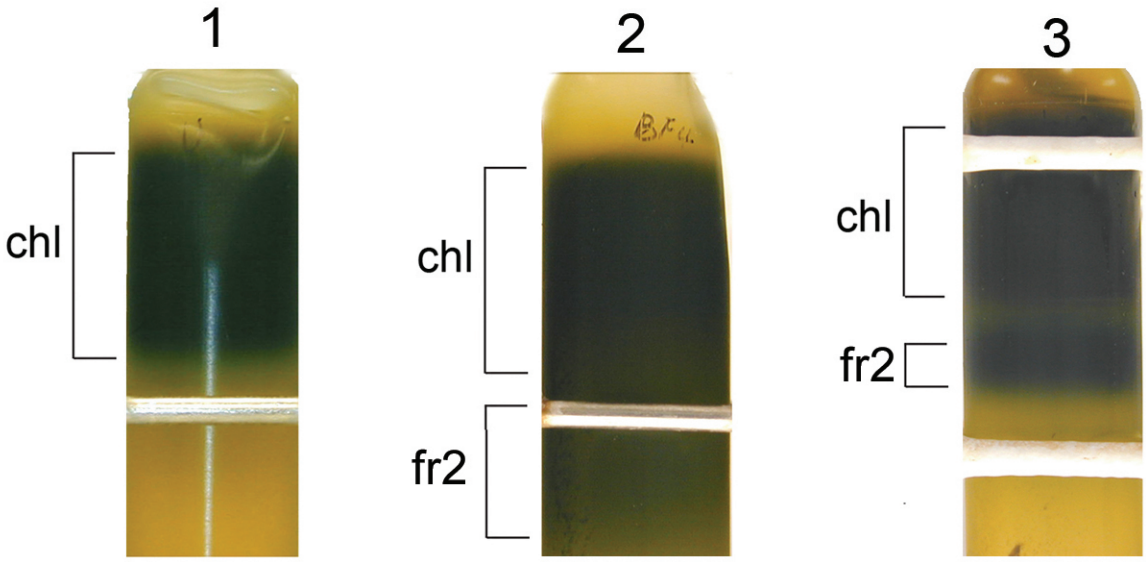


F

Suppl. Fig. 3



Suppl. Table 1. Characterization of chlorosomes isolated from the wild type and mutants lacking the proteins of the CsmC/CsmD or CsmB/CsmF motif families.[a, b]

Strain	Absorption maximum (nm)	Fluorescence maximum[c] (nm)	BChl *a*	Carotenoids	Mena-quinone-7	Chlorobium-quinone	Total quinones
Wild type	750 ± 1	771 ± 1	11 ± 1	57 ± 2	14 ± 2	48 ± 4	62 ± 6
csmC csmD	737 ± 1	765 ± 2	10 ± 1	53 ± 6	14 ± 4	52 ± 10	66 ± 14
csmC csmED	738 ± 2	767 ± 1	8 ± 0	45 ± 2	19 ± 1	47 ± 2	66 ± 3
csmC csmD csmH	745 ± 1	768 ± 1	14 ± 2	79 ± 2	29 ± 7	55 ± 5	84 ± 12
csmC csmED csmH	745 ± 2	769 ± 1	15 ± 1	71 ± 3	26 ± 5	61 ± 4	87 ± 9
csmC csmD csmH Fr2	732 ± 3	765 ± 1	17 ± 2	78 ± 27	29 ± 1	45 ± 5	74 ± 6
csmB csmF	756 ± 2	773 ± 1	12 ± 1	42 ± 1	13 ± 2	44 ± 5	57 ± 7
csmB csmF csmH	753 ± 3	773 ± 1	12 ± 1	43 ± 0	14 ± 1	47 ± 1	61 ± 2
csmB csmF Fr2	754 ± 3	773 ± 1	57	64	14	59	73

[a]Pigment and quinone contents are reported as mg per g of BChl *c*.

[b]The reported values (mean and standard deviations) are the results from at least two measurements except for the fraction-2 sample from the *csmB csmF* mutant, which shows the results from a single preparation.

[c]Fluorescence emission spectra were taken under reducing conditions in the presence of 10 mM sodium dithionite.