Supporting Information

Spectral Properties and Excitation Relaxation of Novel Fucoxanthin Chlorophyll *a*/*c*-Binding Protein Complexes

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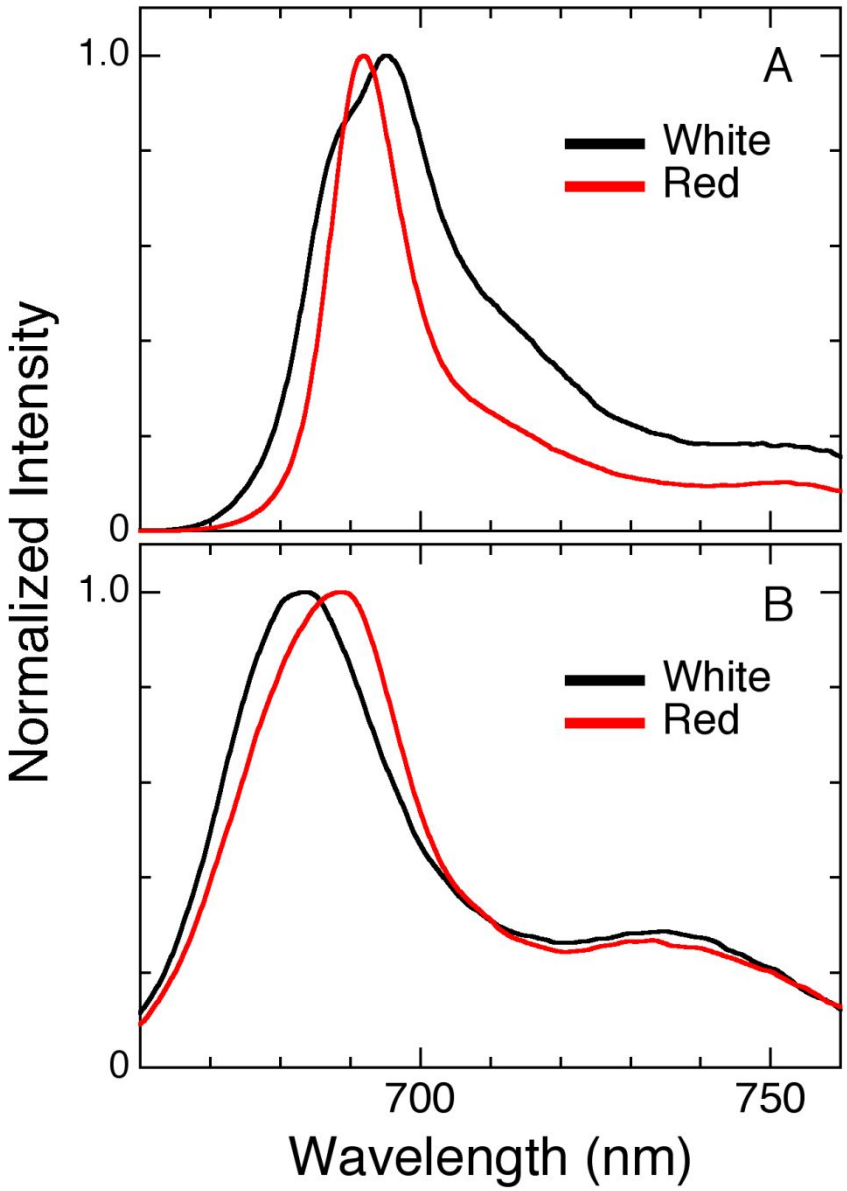

Figure S1. Steady-state fluorescence spectra at 77 K (A) and room temperature (B) of *Chaetoceros gracilis* cells grown under the red LED (red line) and the white LED (black line). The spectra are normalized by the peak intensity.

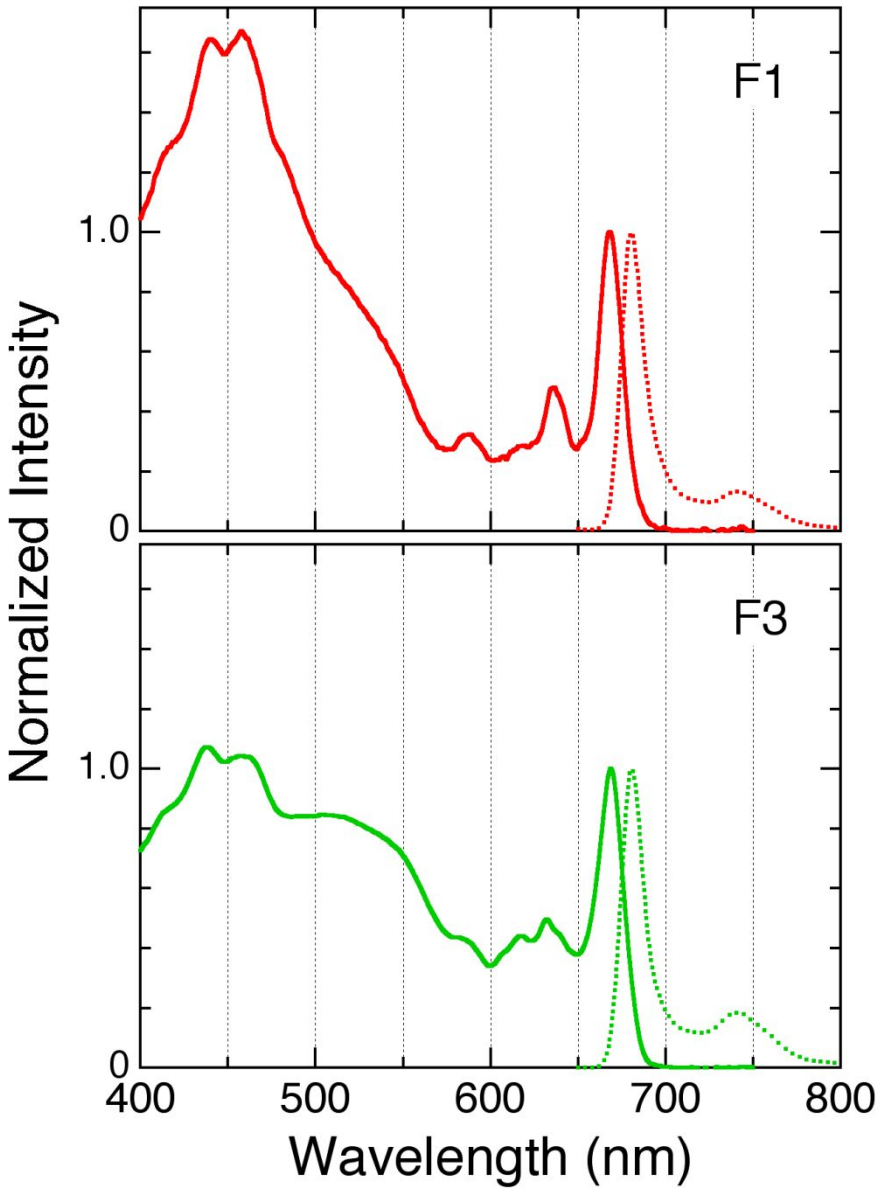

Figure S2. Steady-state absorption (solid line) and fluorescence (dotted line) spectra at 77 K of the F1 (red) and F3 (green) complexes from the white-grown cells. The absorption and fluorescence spectra are normalized at the peak of the Chl *a* Qy band (~669 nm) and the peak intensity, respectively. The excitation wavelength was 459 nm for fluorescence spectra.

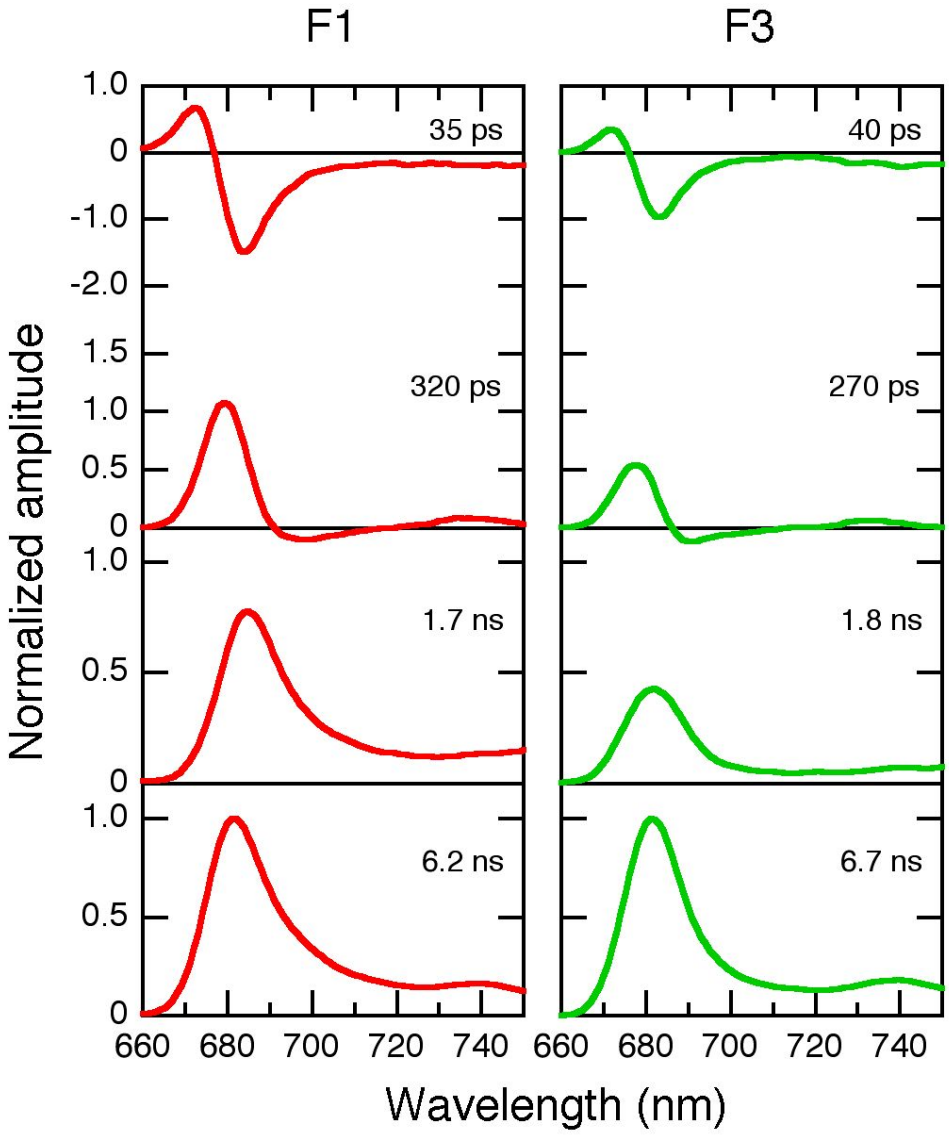

Figure S3. Fluorescence decay-associated spectra at 77 K of the F1 (red) and F3 (green) complexes from the white-grown cells, normalized by the peak intensity of the respective 4th FDA spectrum. The excitation wavelength was 459 nm.

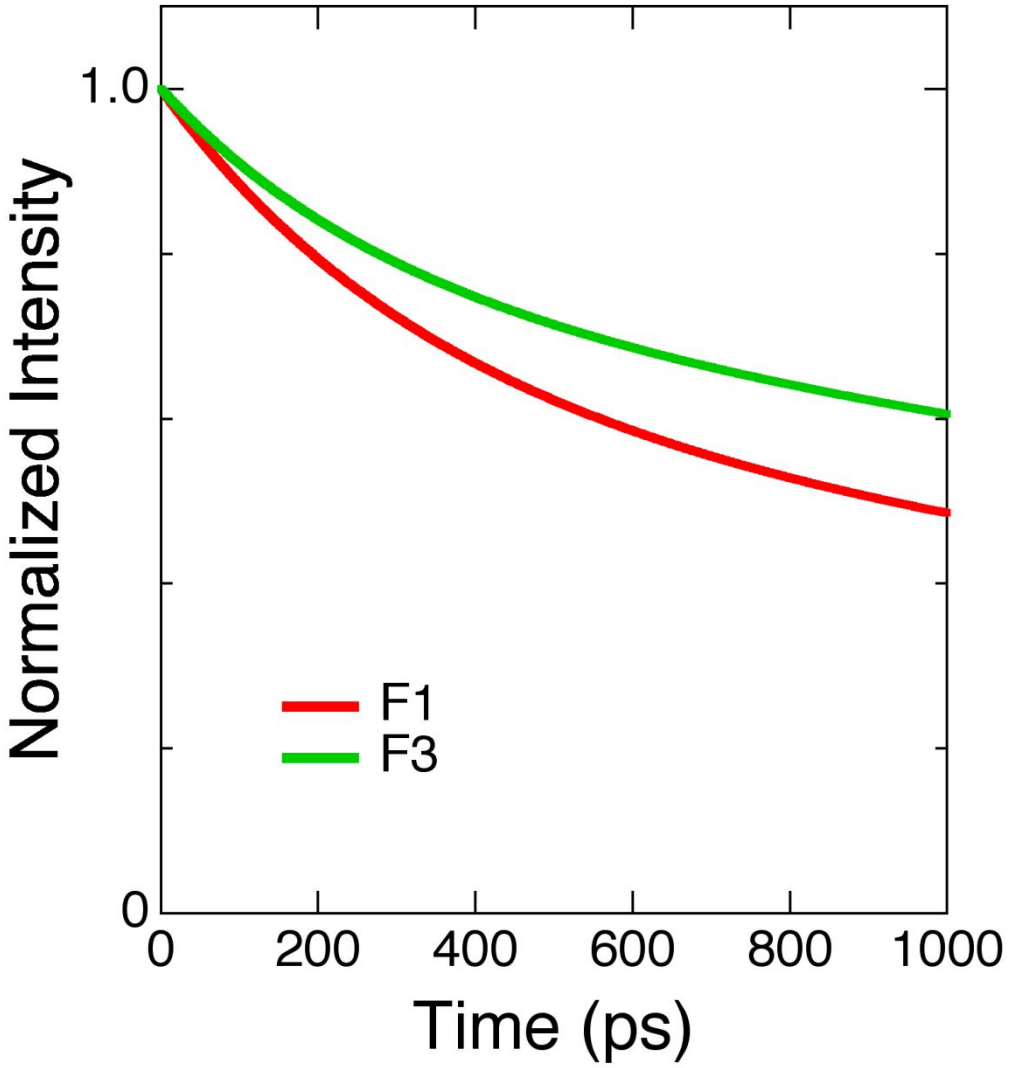

Figure S4. Fluorescence decay curves of the F1 (red) and F3 (green) complexes from the white-grown cells, reconstructed from the positive amplitudes and time constants of the FDA spectra at 77 K (Figure S3).