

## Supporting Material 1

### **Kinetic and thermodynamic analysis of the light induced processes in plant and cyanobacterial phytochromes**

Chizhov, I.,<sup>1</sup> Zorn, B.,<sup>2</sup> Manstein, D.J.,<sup>1</sup> and Gärtner, W.<sup>2\*</sup>

Figure legends.

Fig.1s: CphA R-to-FR and FR-to-R conversion by continuous irradiation through a 120 W halogen lamp. 660: RF-to-R RG710 (Schott) optical filter, 50 mW,  $t_{1/2}=0.3$  s  
710: R-to-FR IF625 (Carl Zeiss Jena) interference filter, 2.5 mW,  $t_{1/2}=1.4$  s.

Black lines: experimental data, red lines: single exponential fit.

Fig.2s: Effect of probing light on measurements:

phyA65 R-to-FR at 0, 10, 20, and 30 °C. The probing light at 690 nm converts generated Pfr molecules back to the R state with a temperature-independent half-time of 1.5 sec. Black lines: experimental data, red lines: four exponential fit.

Fig. 1s

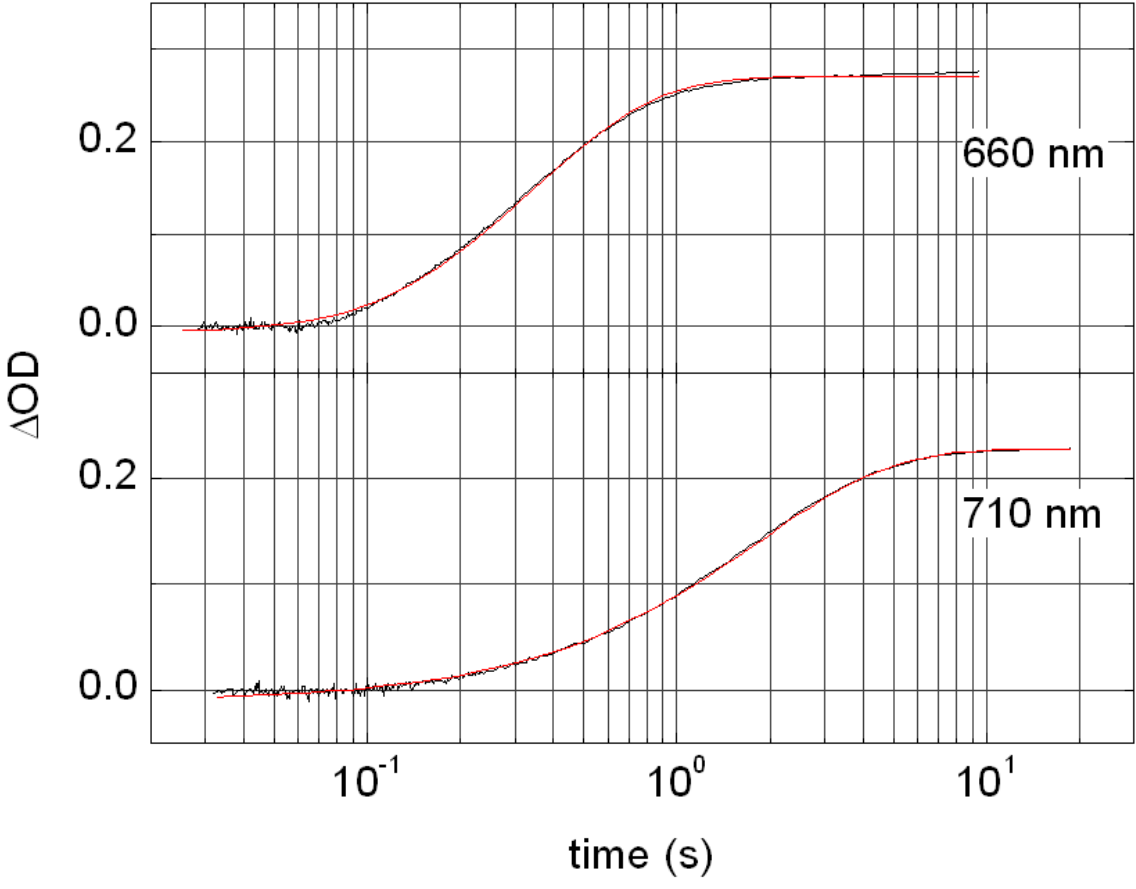


Fig. 2s

