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Tyrosine 263 in Cyanobacterial Phytochrome Cph1 Optimizes Photochemistry at the prelumi-R→lumi-R Step

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Supplementary Information

Tyrosine 263 in cyanobacterial phytochrome Cph1 optimizes photochemistry at the prelumi-R → lumi-R step

Sineshchekov et al.
Figure S1. Stereo pairs of the chromophore D ring environment.
(a) 2VEA structure of Cph1 Pr (Essen et al. 2008) showing the interactions of the pyrrole N24 and C19 carboxyl oxygen; (b) hypothetical structure of prelumi-R at C15=C16 isomerization angle of 117°; (c) hypothetical ββ PCB D-ring in Cph1 (cyan) with the αα biliverdin D-ring in PaBphP (green) as Pfr. Y263 and D203 in Cph1 Pr (2VEA; (7)) and their homologs Y250 and D194 in PaBphP Pfr (3C2W; (8)) are shown in gold and green, respectively. PyMol molecular images.