## Near-infrared markers based on bacterial phytochromes with phycocyanobilin as a chromophore

Olesya V. Stepanenko, Olga V. Stepanenko, O.G. Shpironok, A.V. Fonin, I.M. Kuznetsova, K.K. Turoverov

## **Supplementary Figures**

**Supplementary Figure 1.** SDS-PAGE of iRFP713 in the apoform and in the PCB-bound form.

**Supplementary Figure 2.** Tryptophan fluorescence of the iRFP713 variants assembled with PCB.

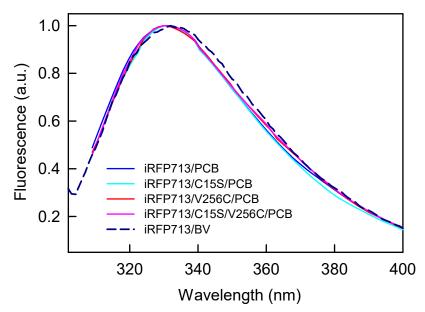
**Supplementary Figure 3**. Absorption of iRFP713 assembled with PCB or BV.

**Supplementary Figure 4**. Near-infrared fluorescence of the iRFP713 variants assembled with PCB.

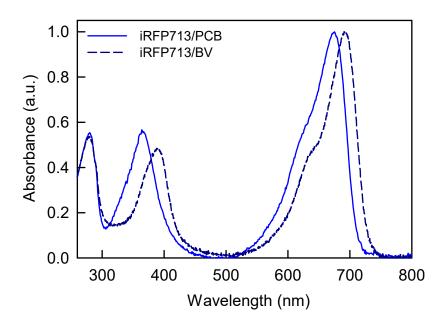
**Supplementary Figure 5**. The near-UV CD spectra of the iRFP713 variants assembled with PCB or BV.



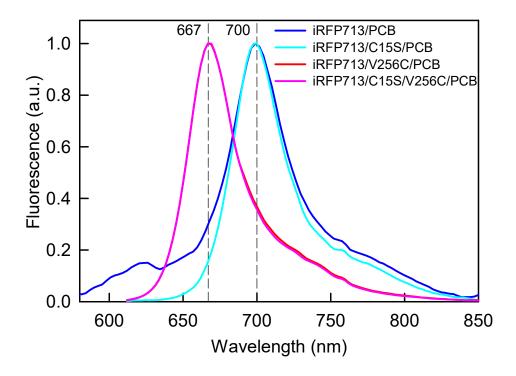
Supplementary Figure 1. SDS-PAGE of iRFP713 in the apoform and in the PCB-bound form. The SDS-PAGE of the proteins followed by staining with Coomassie blue (CB) and ZnCl<sub>2</sub> (Zn) showed that the PPIX- and BV-bound protein impurities does not significantly contribute to Zn-induced fluorescence of the apoprotein.



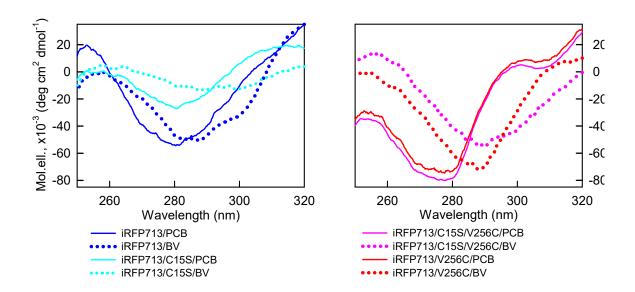
Supplementary Figure 2. Tryptophan fluorescence of the iRFP713 variants assembled with PCB. The spectra are normalized to unity at the maximum of fluorescence intensity. The tryptophan fluorescence spectrum of the BV-bound iRFP713 is also shown. The excitation wavelength is 295 nm.



**Supplementary Figure 3. Absorption of iRFP713 assembled with PCB or BV.** The spectra are normalized to unity at the maximum of the Q absorption band of BV or PCB.



Supplementary Figure 4. Near-infrared fluorescence of the iRFP713 variants assembled with PCB. The excitation wavelength is 560 nm.



Supplementary Figure 5. The near-UV CD spectra of the iRFP713 variants assembled with PCB (solid lines) or BV (dotted lines).