SUPPORTING INFORMATION

Enhanced Photostability of Genetically Encodable Fluoromodules Based on Fluorogenic Cyanine Dyes and a Promiscuous Protein Partner

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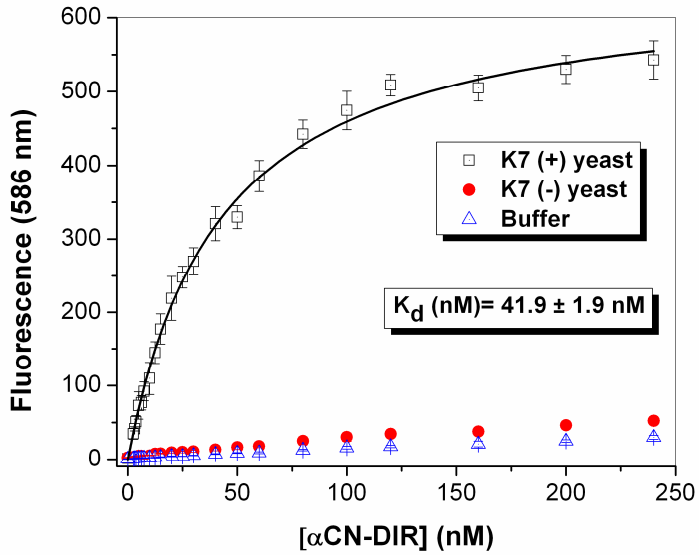

Figure S1. Fluorescence titration of α-CN-DIR into yeast surface-displayed K7. Line is fit to a 1:1 binding model. Dye was titrated into yeast expressing K7 (squares), yeast not expressing K7 (circles), and buffer (triangles). Samples were excited at 534 nm.

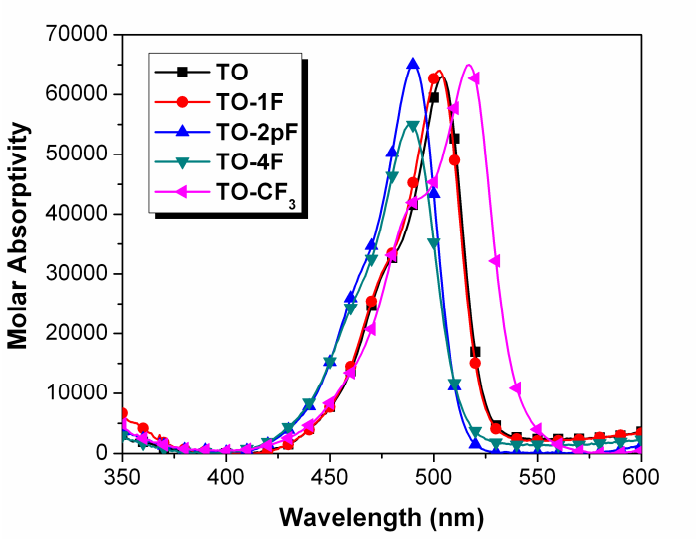

Figure S2. UV-vis absorbance spectra recorded for TO dyes in the presence of K7 protein. [Dye] = 300 nM, [K7] = 600 nM. The spectra show a blue shift when electron-withdrawing fluorine atoms are placed on the benzothiazole ring, but a red shift when a trifluoromethyl group is placed on the quinoline ring.

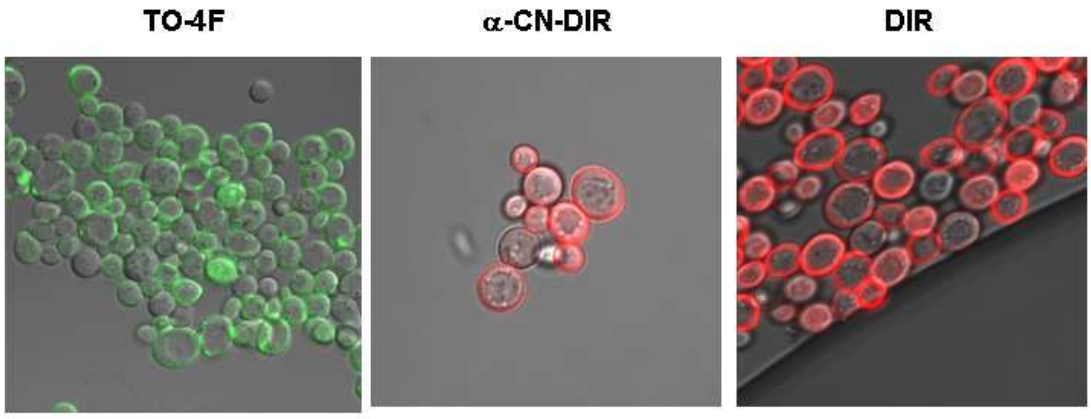

Figure S3. Merged fluorescence and differential interference contrast micrographs of yeast-displayed scFv K7 stained with 300 nM TO-4F (left), 200 nM α-CN-DIR (middle) and 100 nM DIR (red).