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Supplemental Information

Frequency-Encoded Multicolor Fluorescence Imaging with Single-Photon-Counting Color-Blind Detection

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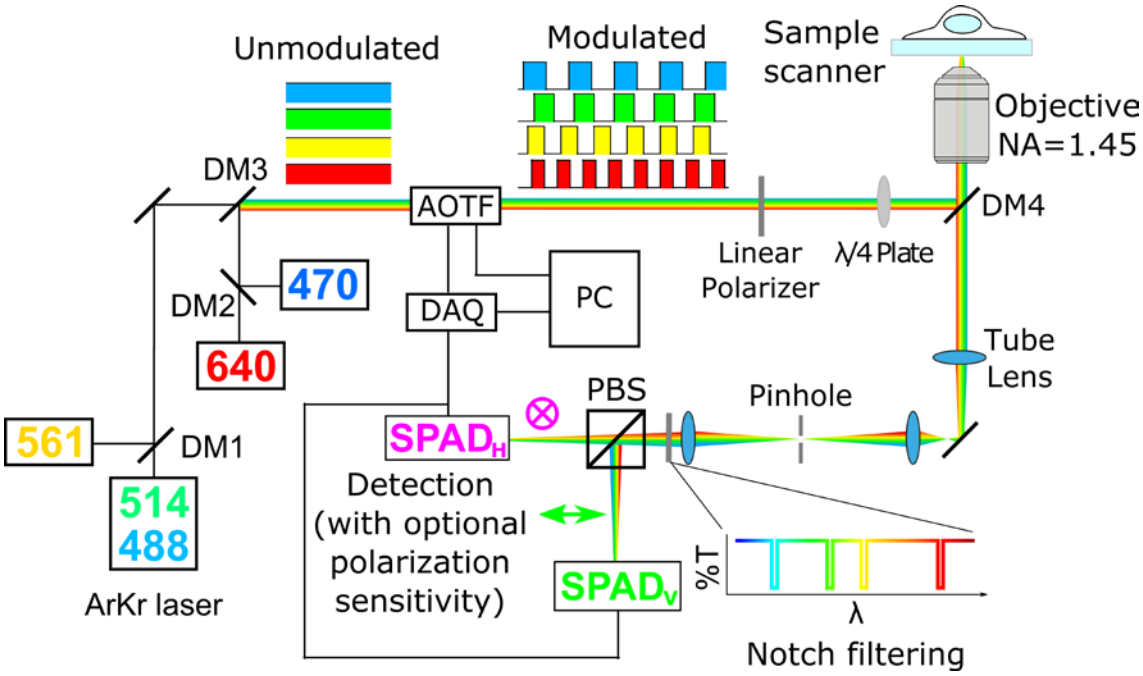

Fig. S1. Full experimental layout of the setup. The DAQ drives the AOTF (modulator) and records the data from the SPADs (demodulator), but runs these two systems asynchronously and independently. Dichroic mirrors DM1-3 are chosen for the shown laser wavelengths, DM4 is a dual-band chosen to maximally reflect blue and red. The linear polarizer and the λ/4 plate are used to generate circularly polarized light.

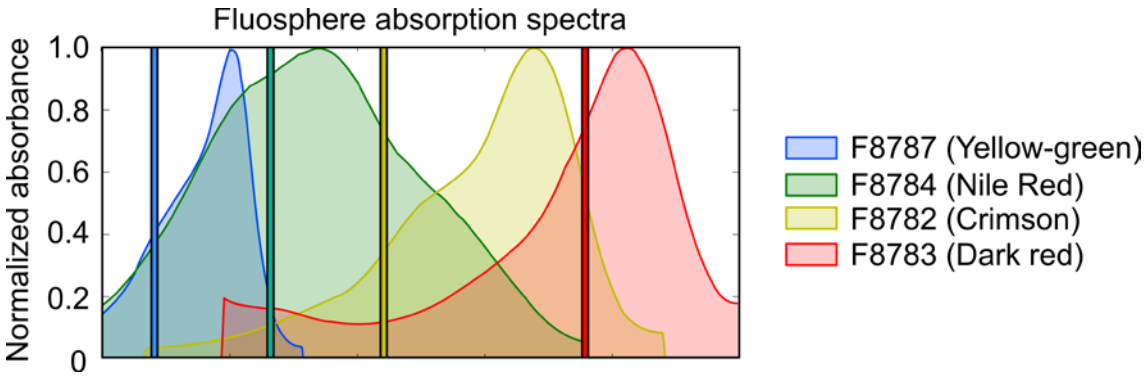

Fig. S2. Absorption spectra of the nanobeads used for the experiments shown in Fig. 1(c-g). The vertical lines correspond to the excitation wavelengths used, from left to right: 470 nm, 514 nm, 561 nm and 640 nm.

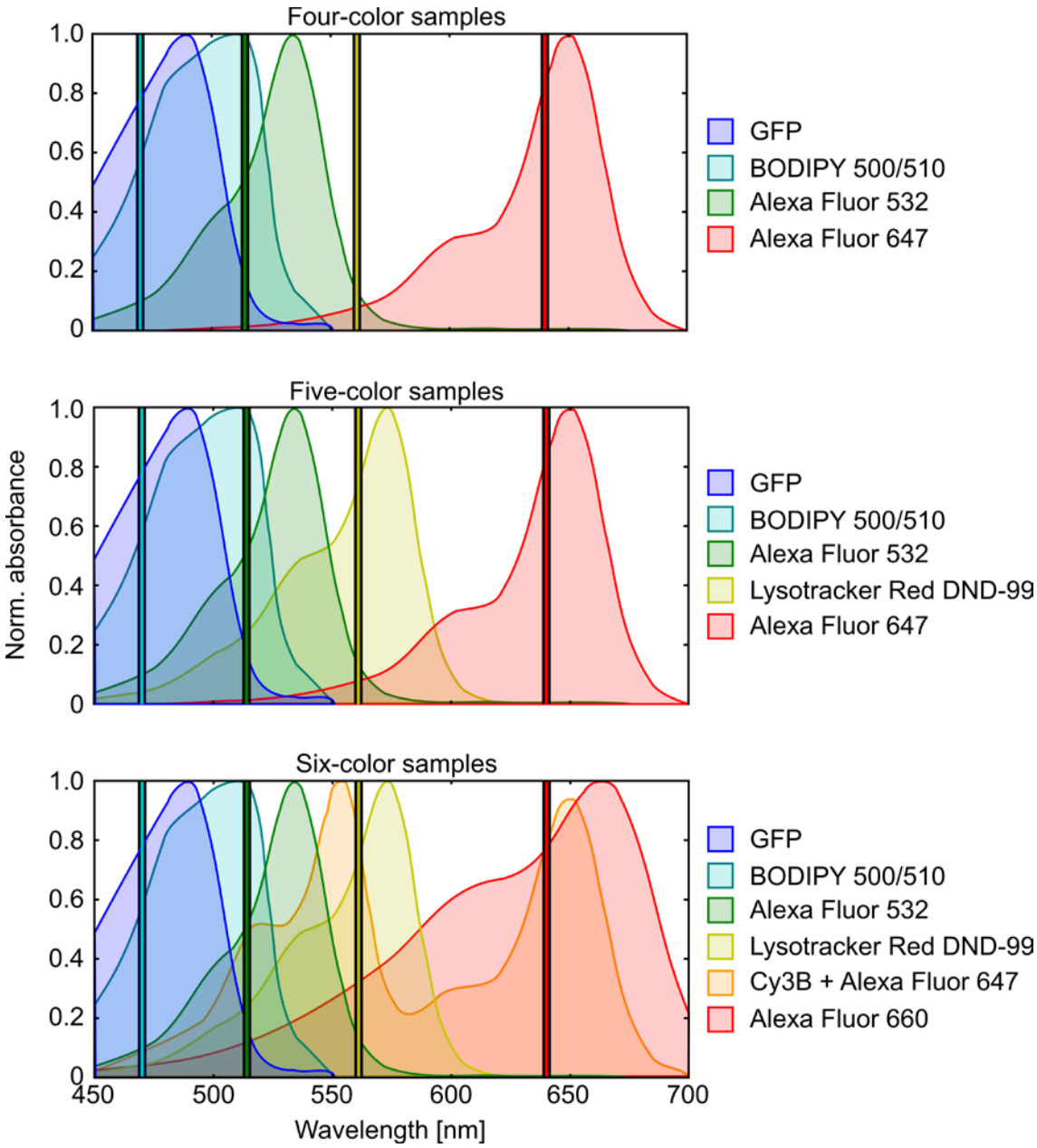

Fig. S3. Absorption spectra for the different fluorescent labels used for cell imaging of 4-, 5- and 6-labeled organelles. Vertical lines correspond to the excitation wavelengths used, from left to right: 470 nm, 514 nm, 561 nm and 640 nm.