

Figure S21: Relationship between photomorbidity of excitation light and quality of fluorescence images obtained using different magnification objectives.

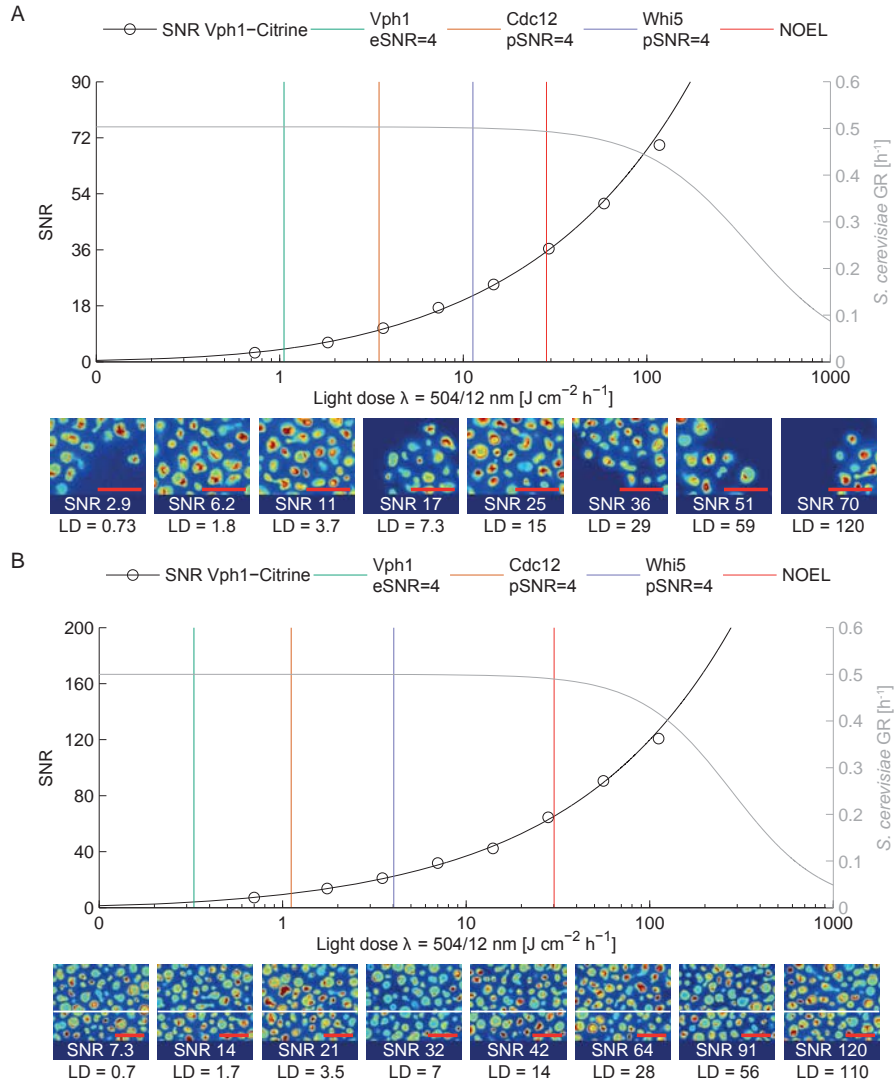


Figure S21 (*previous page*)

A: The measured and calculated SNR of images obtained from a Vph1-Citrine tagged strain using a Nikon Plan Apo VC NA 1.4 60x objective is plotted against the light dose (black line and circles, light dose based on 5 min interval time, light intensity of 3.05 W cm^{-2}). The light doses necessary to reach an SNR of four for Vph1, Cdc12 and Whi5 fusions were calculated (green, orange and violet lines). The photomorbidity curve and the corresponding NOEL is plotted against the light dose (gray and red line). False colored fluorescence images of cells expressing Vph1-Citrine fusion proteins at different light doses. Images are contrast enhanced by stretching the histogram between 1% of the highest and lowest pixel values. SNR values were calculated for each image and are displayed inside the corresponding images. Pictures correspond to the SNR data points in the graph above and light doses are shown below the images. Scale bars represent $10 \mu\text{m}$. B: Same as A but using a Nikon Plan Fluor NA 1.3 40x objective and a light intensity of 2.91 W cm^{-2} .
