Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Movie showing continuous acquisition of images of mfd-YPet $\Delta uvrB$ cells imaged using a 514 nm laser. Integration time is 100 ms. Scale bar is 5 μm . Mfd-YPet in these cells exhibits both diffusive behavior (contributing to broad cytosolic fluorescence) and binding to RNAP resulting in distinct foci.