***Inventory for data repository “In vitro reconstitution of E.coli divisome activation“; Radler et al 2022; Nature Communications***

**Raw data Micrographs.zip:** Contains all raw .tiff images used for the micrographs in the paper.

**Supplementary Movie S1-5/S6-S9/S10-18.zip:** Contains raw .tiff images of TIRF experiments for the corresponding supplementary movies.

**FtsA paper plots.zip:** Contains all jupyter notebook codes to plot figure panels, as well as all fittings codes. The zip folder contains subfolder for all 9 figures.

**Analysis part 1 & 2.zip:** Contains all codes and Excel/csv files in which the data of analysis is stored.

**Raw Microscopy\_FtsZ Autocorrelation.zip:** Raw .tiff images from TIRF experiments which were used to measure the autocorrelation of FtsZ in presence of FtsA WT and R286W.

**Raw Microscopy\_FtsZ FRAP.zip:** Raw .tiff images from TIRF experiments which were used to measure the bleaching recovery of FtsZ in presence of FtsA WT and R286W.

**Single Molecule Measurements FtsZ CTP TAMRA.zip:** Raw .tiff images from TIRF experiments of single molecules of the C-terminal peptide of FtsZ on membranes covered with FtsA WT-His6 or FtsA R286W-His6.

**Single Molecule Measurements FtsN.zip:** Raw .tiff images from TIRF experiments of single molecules of FtsNcyto in the presence of FtsZ and FtsA WT or FtsA R286W.

**Single Molecule Measurements FtsAs.zip:** Raw .tiff images from TIRF experiments of single molecules of FtsA WT or FtsA R286W.

**Single Molecule Measurements FtsZ WT vs R286W.zip:** Raw .tiff images from TIRF experiments of single molecules of FtsZ in the presence of FtsA WT or FtsA R286W.

**FRET\_His SUMO control.zip:** Raw .tiff images from TIRF experiments of FRET experiments for His6-SUMO on increasing Tris-NTA lipid densities.

**Dual Color FtsA & FtsN.zip:** Raw .tiff images from TIRF experiments for dual color FtsAs / FtsN in the presence of FtsZ and increasing FtsA concentrations of FtsA WT and FtsA R286W.

**FRET\_FtsA WT Titrations.zip:** Raw .tiff images from TIRF experiments of FRET experiments for native FtsA WT at increasing concentrations.

**FRET\_FtsA R286W Titrations.zip:** Raw .tiff images from TIRF experiments of FRET experiments for native FtsA R286W at increasing concentrations.

**FRET\_FtsA WT\_Nucleotides.zip:** Raw .tiff images from TIRF experiments of FRET experiments for native FtsA WT in the presence of ATP, ADP and ATPγS.

**Dual Color FtsZ & FtsN.zip:** Raw .tiff images from TIRF experiments for dual color FtsZ / FtsN in the presence of increasing FtsA concentrations of FtsA WT and FtsA R286W.

**Dual Color FtsA & FtsZ.zip:** Raw .tiff images from TIRF experiments for dual color FtsAs / FtsZ at increasing FtsA concentrations.

**Dual Color FtsA WT & FtsZ\_FtsN effect.zip:** Raw .tiff images from TIRF experiments for dual color FtsA WT / FtsZ at increasing FtsA WT concentrations and in the presence of FtsNcyto.

**Dual Color FtsA His6 & FtsZ.zip:** Raw .tiff images from TIRF experiments for dual color FtsZ / His6-FtsAs on membranes with increasing densities of Tris NTA lipids.

**FRET FtsA His6.zip:** Raw .tiff images from TIRF experiments for FRET of His6-FtsAs in the presence of FtsZ on membranes with increasing densities of Tris NTA lipids.

**FRET\_FtsZ condensations.zip:** Raw .tiff images from TIRF experiments of FRET experiments for native FtsAs in the presence of FtsZ.

**FRET\_FtsN effect.zip:** Raw .tiff images from TIRF experiments of FRET experiments for native FtsAs in the presence of FtsNcyto alone and FtsNcyto together with FtsZ.

**Raw Microscopy\_Dual Color FtsA His6 & FtsZ\_FtsN effect.zip:** Raw .tiff images from TIRF experiments for dual color FtsZ / His6-FtsAs in the presence of FtsNcyto and on membranes with 1.5% Tris NTA lipids.

**Raw Microscopy\_FRET FtsA His6 + FtsN & FtsZ\_01.zip:** Raw .tiff images from TIRF experiments for FRET of His6-FtsAs in the presence of FtsNcyto and FtsZ on membranes with 1.5% Tris NTA lipids.