

The data contained in this folder were generated in the following way:

MCF7 cells were transiently transfected with a construct expressing the nuclear protein Cdt2 fused to eGFP (eGFP-Cdt2wt). 24 hours following transfection, cells were locally irradiated with UV-C (254 nm, 50 J/m<sup>2</sup>) through a micropore filter (folder Cdt2\_locUV) or were left untreated as a control (folder Cdt2-NoUV). 15 minutes following irradiation, cells were analysed by FRAP on a Leica TCS-SP5 confocal microscope. The shape of the bleaching region (ROI1) was circular with a diameter of 2 µm. Fluorescence before, during and after the bleaching step was monitored over time by time-lapse microscopy with a time interval of 0.052 seconds.

The following number of frames were recorded:

Pre-bleach frames: 50

Bleach frame: 1

Post-bleach frames: 400

Fluorescence intensities in the region of photobleaching (ROI1), the nucleus (ROI2) and a background region (ROI3) were quantified in each time-series. Mean per pixel fluorescence intensities on a 12 bit gray scale were saved for each ROI.

20 individual cells were analysed for each condition (Cdt2-locUV, Cdt2-NoUV).

The files provided are .csv (comma separated files). Each file corresponds to a different single cell analysed by FRAP.

Each file contains 4 columns.

Column 1: time (in seconds)

Column 2: ROI1 (region of photobleaching)

Column 3: ROI2 (nucleus)

Column 4: ROI3 (background)