



$$\text{DNA Damage Extent} = \text{Tail Brightness} / \text{Head Brightness} \times \text{Tail Length}$$

Supplementary information, Figure S7 Comet assay to assess the extent of DNA double-strand breaks (DSB). The experiments were carried out as described in Figure 1F. To analyze the DNA DSB, the electrophoresis was run at pH 7. An undamaged (left panel) and damaged (right panel) cell from the comet assay are shown. The formula used to measure the extent of DNA damage in a single cell is: DNA damage extent = tail brightness / head brightness x tail length. The average DNA damage extent of each sample was calculated by dividing the total DNA damage extent from each individual cell by the total number of cells.