Supplementary Figure 1: Marker Frequency Analysis at different times of the growth of WT. The red lines represent the one-dimensional Gaussian filter. The horizontal red line was used to calculated the area of the *oriC* peak.

Supplementary Figure 2: Marker Frequency Analysis at different times of the growth of Δ*oriC*. The red lines represent the one-dimensional Gaussian filter. The horizontal red line was used to calculated the area of the *oriC* peak.

Supplementary Figure 3: Marker Frequency Analysis at different times of the growth of RadAKD. The red lines represent the one-dimensional Gaussian filter. The horizontal red line was used to calculated the area of the *oriC* peak.

Supplementary Figure 4: Expression of RadA in WT and RadAKD strains at atmospheric pressure and 40MPa. Western blot on RadA in WT and RadAKD strains during exponential and stationary phases at both pressures. Each line was performed using 5 µg of total proteins and a purified RadA from *P. abyssi* was added as control. Here this western was used to compare easily WT and RadAKD strains at both pressure.