

SUPPLEMENTARY FIGURE LEGENDS

SUPPLEMENTARY FIGURE 1. Mre11 foci formation in BRCA2 deficient cells is independent of PARP activity. (A) Western blot analysis of Mre11 (top) and ACTIN (bottom) in V-C8 and V-C8+B2 cells treated with olaparib (10 μ M, 6 hours). (B) Quantification of Mre11 foci positive cells in the presence or absence of olaparib (10 μ M) for 6 hours. Error bars, \pm s.d. The averages and error bars from at least three experiments are depicted.

SUPPLEMENTARY FIGURE 2. Mre11 foci formation in BRCA2 deficient cells is independent of NHEJ. Quantification of Mre11 foci positive cells in V-C8 and V-C8+B2 in the presence or absence of DNA-PKcs inhibitor. Error bars, \pm s.d. The averages and error bars from at least three experiments are depicted.

SUPPLEMENTARY FIGURE 3. BRCA2 is not required for restart of stalled replication forks. (A) Labelling protocol for DNA fibre analysis in S2B, C and D. V-C8 or V-C8+B2 cells were pulse-labelled with CIdU, treated with 2 mM HU for the times indicated, and released into IdU for 1 hour. CIdU was detected using a specific primary antibody and a secondary antibody in red. IdU was detected using specific primary antibody and a secondary antibody in green. (B, C) Quantification of fork restart in V-C8 and V-C8+B2 cells after release from 2 (B) or 6 (C) hours HU treatment. Error bars, \pm s.d. (D) Representative images of replication tracks from V-C8 and V-C8+B2 cells after release from 6 hours HU treatment. The averages and error bars from at least three experiments are depicted.

SUPPLEMENTARY FIGURE 4. Reduction of ssDNA by inhibition of Mre11. Quantification of average RPA foci per cell in V-C8 and V-C8+B2 cells in the presence or

absence of mirin. Error bars, \pm s.d. The averages and error bars from at least three experiments are depicted.

SUPPLEMENTARY FIGURE 5. Stalled replication forks are protected from degradation in PARP inhibitor-resistant cells. (A) Labelling protocol for DNA fibre analysis in 4D. PIR-2B or PIR-1C cells were pulse-labelled with CIdU and subsequently with IdU, followed by HU treatment for 6 hours. (B) Quantification of fibre tracks with complete loss of secondary IdU (green) labelling after 6 hours treatment with HU. Error bars, \pm s.d. The averages and error bars from at least three experiments are depicted.