Supplemental figure legends

Supplemental figure 1. The elimination of double-strand breaks (DSBs) induced by camptothecins (CPTs) within 12 hours after drugs treatment in HT-29 cells and its requirement of RAD51. HT-29 cells were treated with camptothecin (CPT) or chimmitecan at 50 or 100 nM for 1 h. Immediately after removal of drugs (at 0 h), cells were washed with PBS and incubated in drug-free medium for indicated time. **A.** Western blot analyses of γ-H2AX. **B.** HT-29 cells were transfected with RAD51 siRNA 48-h prior to drugs treatment. Cells were subjected to western blot analyses after 12-h drugs-free incubation. Abbreviations: CPT, camptothecin; Chim, chimmitecan.

Supplemental figure 2. Reversible G2/M phase arrest induced by camptothecins (CPTs). HT-29 cells treated as described in *Supplemental figure 1* were harvested at the indicated time points and then subjected to flow cytometry. **A**. Time-course of cell-cycle arrest induced by CPTs. **B**. CPTs induced reversible G2/M phase arrest. HT-29 cells were collected at the end of 24-h or 72-h incubation and G2/M phase cells were measured based on DNA content by flow cytometry. *Columns,* mean from three independent experiments; *bars,* SD.

Supplemental figure 3. Effects of Chk1 and Chk2 siRNAs on camptothecins (CPTs)-induced G2/M phase arrest. and **A.** SiRNA-generated down-regulation of Chk1 and Chk2. HT-29 cells were subjected to western blot analyses after transfected with Chk1, Chk2, or control siRNAs for 48 h. **B.** HT-29 cells were treated as

described in *Supplemental figure 1* after transfected with Chk1, Chk2 and control siRNA respectively. After 24-h incubation in drug-free medium, cells were subjected to flow cytometry for cell-cycle analyses. *Columns,* mean from three independent experiments; *bars,* SD. *$p<0.05$, Chk1 or Chk2 siRNA transfected *vs.* GFP siRNA transfected group.

Supplemental figure 4. The roles of Chk1 and Chk2 in camptothecins (CPTs) activated homologous recombination repair. HT-29 cells were treated as described in *Supplemental figure 1* 48-h after transfected with Chk1, Chk2, or control siRNAs respectively. RAD51 foci were detected by immunofluorescence at the end of 6-h incubation in drug-free medium. White circles indicate nuclei.