

## Supplementary Figure Legends

**Figure 1.** Induction of miR-200c leads to widespread alteration in lncRNA expression.

(a) Differential expression of 10 lncRNAs in miR-200c-overexpressing cells and control cells validated by qRT-PCR. (b) Relative expression of candidate lncRNAs in breast cancer cells and MCF-10A cells.

**Figure 2.** *LINC02582* contributes to radioresistance of breast cancer cells.

(a) Left, miR-200c expression levels in MDA-MB-231 and BT549 cells after inhibited *LINC02582*. Right, miR-200c expression levels in MCF-7 cells after *LINC02582* overexpression. (b) MDA-MB-231 and BT549 cells were transfected with two different *LINC02582* siRNAs, cell growth was determined at day 1-4 after transfection. (c-d) Formation of  $\gamma$ -H2AX foci at 24 h after 6 Gy IR, analyzed by immunofluorescence in BT549 cells transfected with *LINC02582* siRNA1. (e) Western blotting analysis of  $\gamma$ -H2AX expression in BT549 cells transfected with *LINC02582* siRNA1, at the indicated time points after 6 Gy IR. (f) Relative expression of *LINC02582* in MDA-MB-231 cells after transduction of lentiviruses encoding *LINC02582* short hairpin RNA (shRNA). Data are presented as means  $\pm$  SD, n=3, \* $P$  <0.05, \*\* $P$  <0.01.

**Figure 3.** MiR-200c regulates *LINC02582* expression in breast cancer cells.

(a)  $\gamma$ -H2AX foci formation analyzed using the immunofluorescence assay in MCF-7 cells transfected with *USP7* siRNA, 24 h after 6Gy IR. (b)  $\gamma$ -H2AX foci formation analyzed using the immunofluorescence assay in MCF-7 cells transfected with *CHK1* siRNA, 24 h after 6Gy

IR. (c) Relative expression of CHK1 mRNA in MCF7 cells after *LINC02582* overexpression.

(d) Relative expression of CHK1 mRNA in MDA-MB-231 cells after inhibited *LINC02582*.

Data are presented as means  $\pm$  SD, n=3, \*  $P < 0.05$ , \*\* $P < 0.01$ .

**Figure 4.** *LINC02582* promotes CHK1 deubiquitination through USP7.

(a) MCF-7 cells overexpressing *LINC02582* were transfected with USP7 siRNA. After transfection, the cells were treated with MG132 (10  $\mu$ M) for 16 h. Lysates were immunoprecipitated with anti-CHK1 antibody and the immunoprecipitates and input were analyzed by western blotting with the indicated antibodies.