

# Estrogen Receptor- $\beta$ Modulation of the ER $\alpha$ -p53 Loop Regulating Gene Expression, Proliferation and Apoptosis in Breast Cancer

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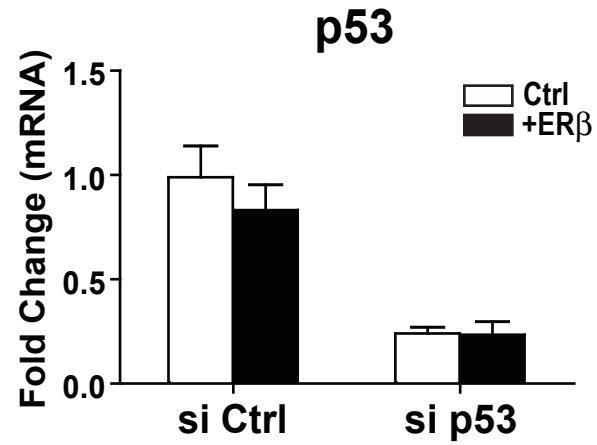
## SUPPLEMENTARY FIGURE LEGENDS

**Fig. S1 Analysis of p53 mRNA and protein levels.** (A) Marked reduction of p53 mRNA in MCF-7 cells transfected with p53 siRNA. Cells were incubated with 20 nM p53 siRNA for 72 h and p53 mRNA was then monitored by qRT-PCR. (B) Western blots show the reduced level of p53 in p53 knockdown MCF-7 cells.  $\beta$ -actin is used as loading control. (C) qRT-PCR analysis of the p53 mRNA levels in MCF-7 cells ( $p53^{+/+}$ ) and MDA-MB-157 cells ( $p53^{-/-}$ ). (D) Western blot analysis of the p53 protein levels in MCF-7 cells ( $p53^{+/+}$ ) and MDA-MB-157 cells ( $p53^{-/-}$ ).

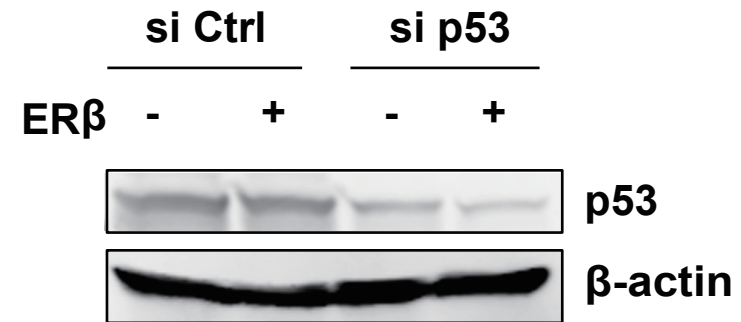
**Fig. S2 Knockdown of ER $\alpha$  enhanced ER $\beta$ -mediated transcriptional activation.** (A) MCF-7 cells were transfected with 20 nM ER $\alpha$  siRNA for 72 h. qRT-PCR analysis of the mRNA levels of ER $\alpha$ -repressed genes in ER $\alpha$  cells and ER $\alpha$ +ER $\beta$  cells. \*,  $P < 0.05$ ; \*\*,  $P < 0.01$ . (B) Analysis of the mRNA and protein levels of ER $\alpha$  in MCF-7 cells transfected with ER $\alpha$  siRNA.

# Figure S1

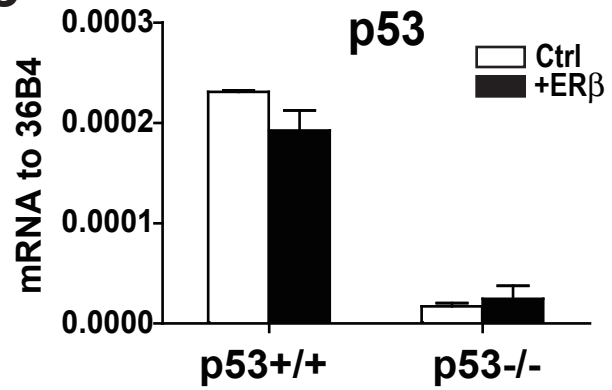
**A**



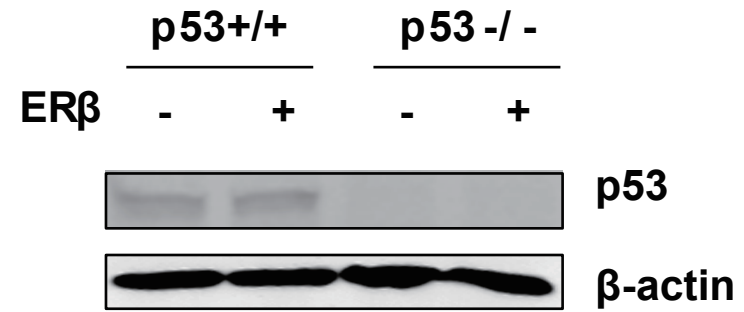
**B**



**C**



**D**



# Figure S2

