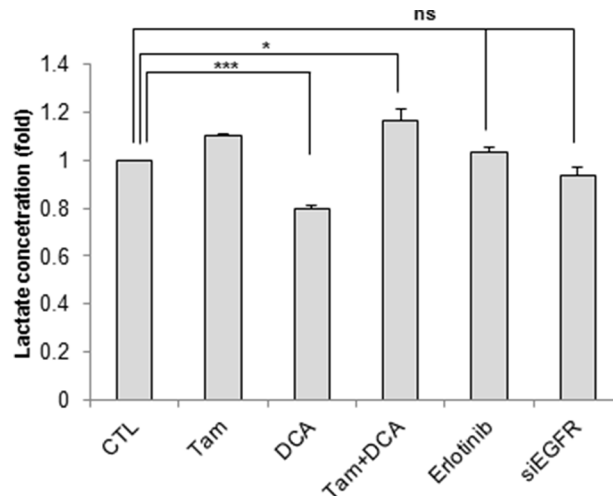
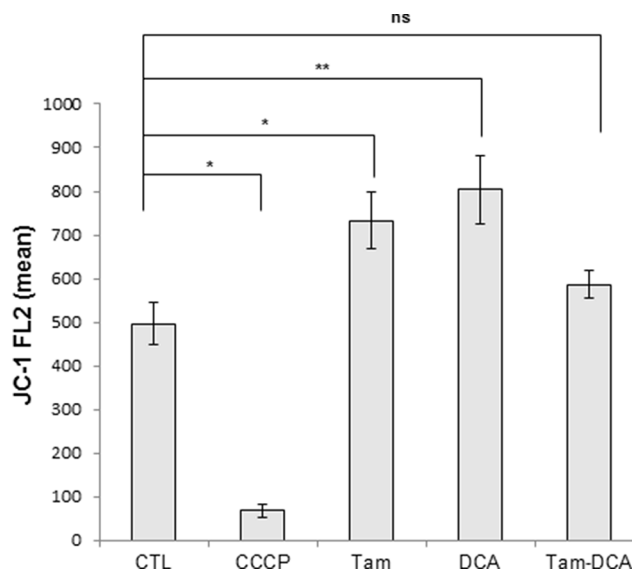


## Dichloroacetate potentiates tamoxifen-induced cell death in breast cancer cells via downregulation of the epidermal growth factor receptor

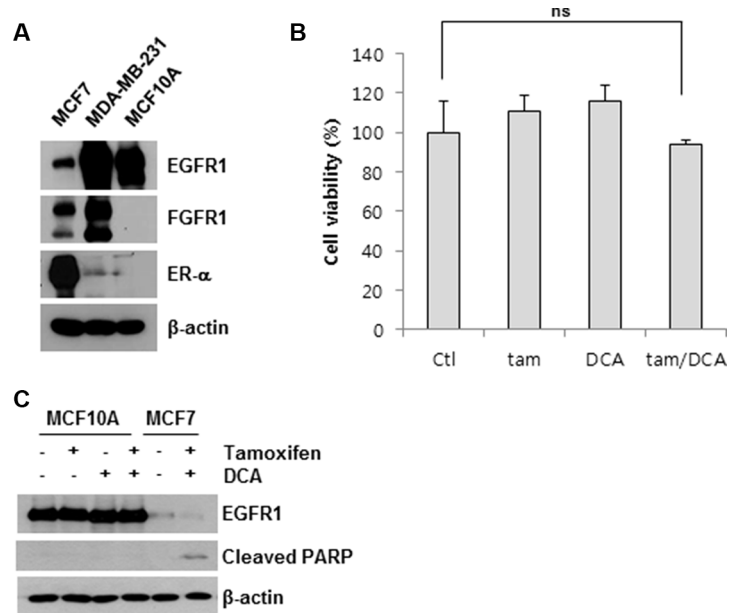
### Supplementary Materials



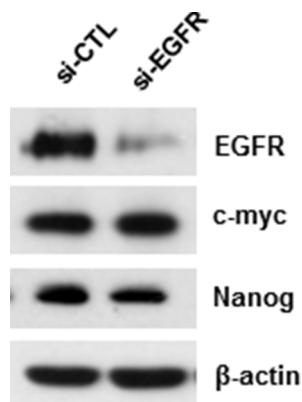
**Supplementary Figure S1: EGFR downregulation is not related to lactate secretion in MCF7 Cells.** Lactate Concentrations in the supernatant of MCF7 Cells were measured using L-lactate assay kit (Bio Assay Systems, Hayward, CA, USA) after treatment with 10  $\mu$ M tamoxifen, 20 mM DCA, 5  $\mu$ M erlotinib or siEGFR for 48 h. \* $p < 0.05$ ; \*\*\* $p < 0.001$ ; ns,  $p > 0.05$ .



**Supplementary Figure S2: The loss of mitochondrial membrane potential (MMP) is nor associated with cell death induced by co-treatment with tamoxifen and DCA in MCF7 cells.** MMP was assessed using a mitochondria staining kit (MitoPT, Immunohistochemistry Technologies, Billmington, MN, USA) based on 5, 50, 6, 60-tetrachloro-1, 10, 3, 30-tetraethylbenzimidazol-carbocyanine iodide (JC-1), which is voltage-sensitive lipophilic cationic fluorescence probe. Cells were exposed to 10  $\mu$ M tamoxifen, 20 mM DCA, or both 10  $\mu$ M tamoxifen and 20 mM DCA for 48 h and then MMP was analyzed by flow cytometry using JC-1. Ten  $\mu$ M carbonyl cyanide 3-chlorophenylhydrazone (CCCP) was added as a positive control. \* $P < 0.05$ ; \*\* $P < 0.01$  ns,  $P > 0.05$ .



**Supplementary Figure S3: MCF10A cells are less sensitive to tamoxifen and DCF than MCF7 cells.** (A) The cell lysates were analyzed by Western blotting. (B) MCF10A cells were treated with or without 10  $\mu$ M tamoxifen and/or 20 mM DCA for 48 h, and the cell viability was then determined using an MTT assay. (C) MCF10A and MCF7 cells were treated with or without 10  $\mu$ M tamoxifen and/or 20 mM DCA for 48 h, and the cell lysates were analyzed by Western blotting. ns,  $p > 0.05$



**Supplementary Figure S4: Effect of siEGFR on the expression of c-myc and Nanog in MCF7 cells.** MCF7 cell were treated with siRNA against EGFR for 48 h, and cell lysates were subjected to Western blotting. The blot is representative of two independent experiments.