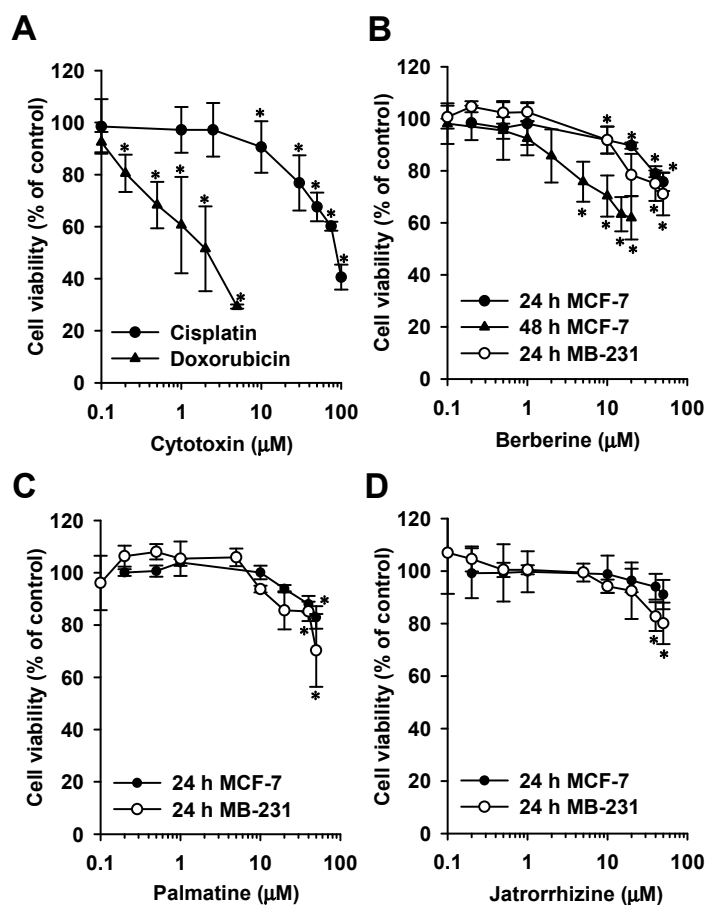
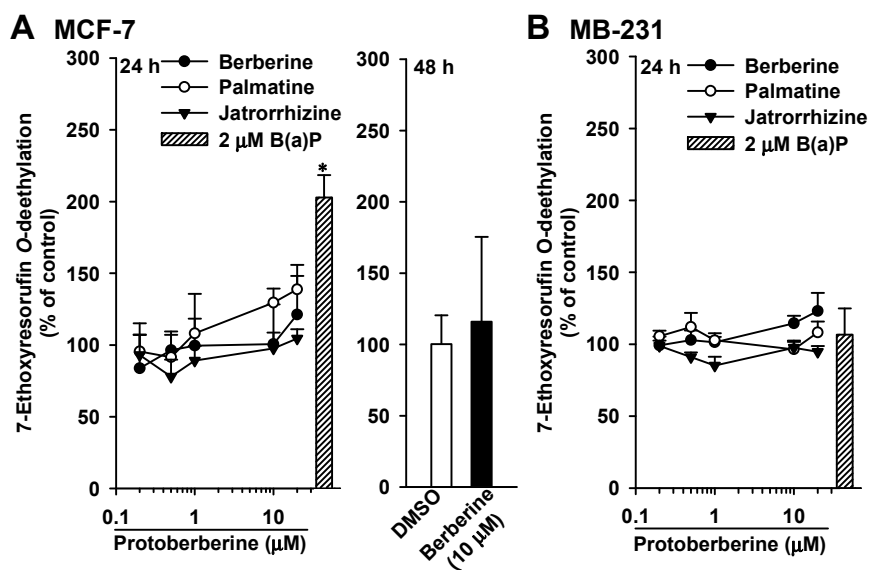


## Supplementary Data



**Figure S1.** Effects of the protoberberines berberine, palmatine and jatrorrhizine on viability of MCF-7 and MDA-MB-231 (MB-231) cells. In panel (A), MCF-7 cells were exposed to cisplatin and doxorubicin for 24 h and cell viability was monitored using MTT assay. Data represent the mean  $\pm$  SD of 3 separate experiments, with 3-4 determinations in each experiment. \*  $p < 0.05$ , compared with the control cells. In panels (B)–(D), cells were exposed to protoberberines at the concentrations indicated for 24 h or 48 h. Results show the relative cell viability compared to control cells exposed to the same concentration of DMSO. Data represent the mean  $\pm$  SD of 5 and 3 separate experiments, with 4 determinations for each experiment, for MCF-7 and MB-231 cells, respectively. \*  $p < 0.05$ , compared with the control cells.



**Figure S2.** Effects of protoberberines on the 7-ethoxyresorufin O-deethylation (EROD) activity in MCF-7 and MDA-MB-231 (MB-231) cells. The basal EROD activity in MCF-7 and MB-231 cells were  $0.22 \pm 0.08$  and  $0.17 \pm 0.08$  pmol/min/mg protein, respectively. Results represent the mean  $\pm$  SD of 3 and 4 experiments with duplicated determinations for MCF-7 and MB-231 cells, respectively. \*  $p < 0.05$ , compared with the control cells.