

p53

MDM2

Ctrl siRNA Ctrl

■AGR2 siRNA Ctrl

Figure S1. The absolute levels of studied proteins shown in Figure 1 were normalized to beta-actin (ACTB) and plotted in the graph.

Ctrl siRNA CisPt

Ser15

■AGR2 siRNA CisPt ■ AGR2 siRNA Doxo

Ser392

Ctrl siRNA Doxo

p21

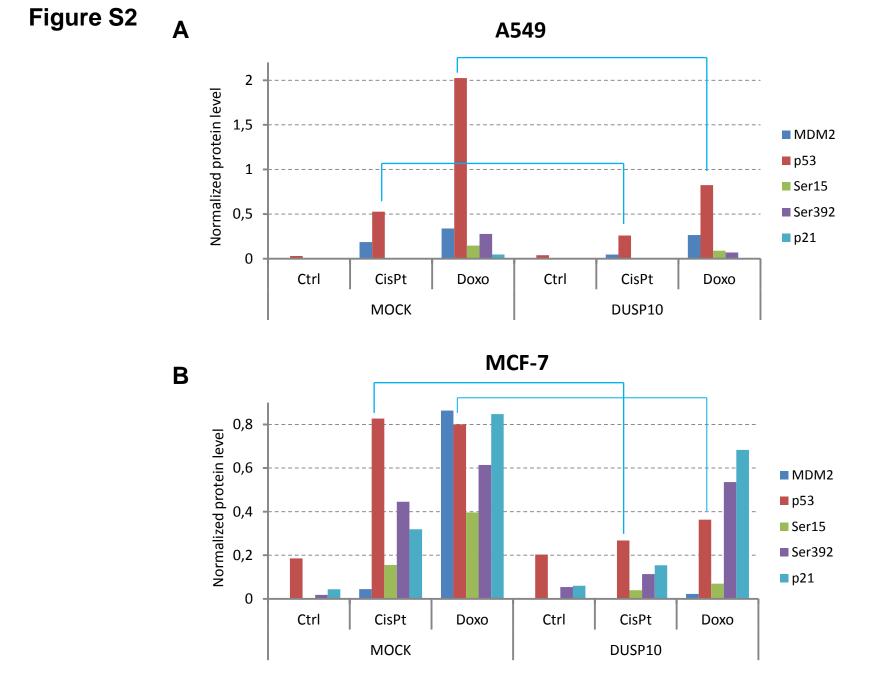


Figure S2. The levels of studied proteins in Figure 4 were normalized to ACTB and plotted in the graph. The changes in p53 expression are highlighted in blue.

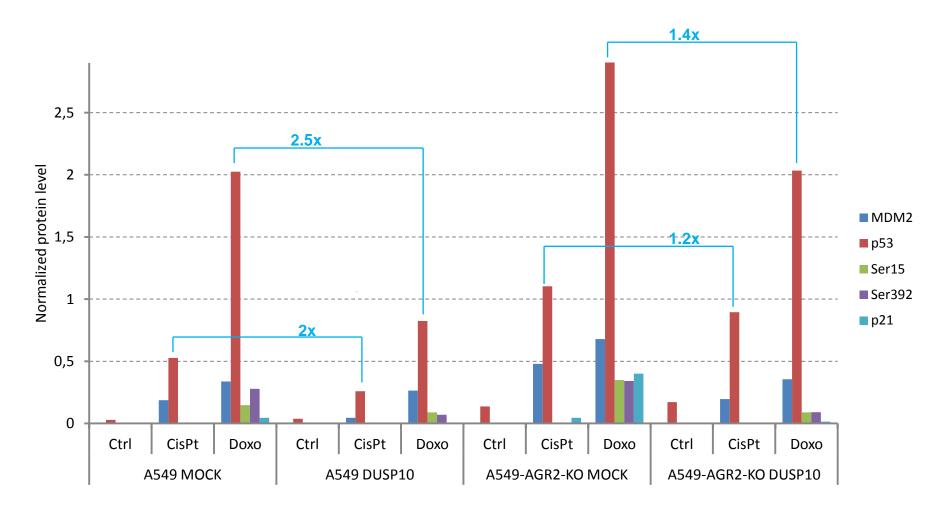
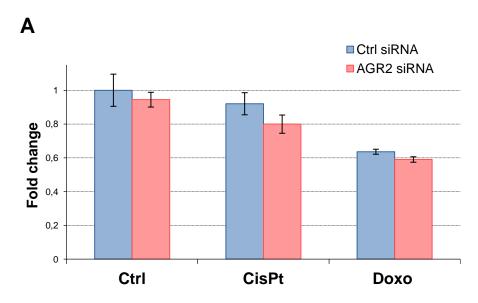


Figure S3. The levels of studied proteins in Figure 4 were normalized to ACTB and plotted in the graph. The changes in p53 expression are highlighted either in blue to compare the effect of DUSP10 expression within the same cell line or in red for evaluation of p53 levels in relation to AGR2 expression.



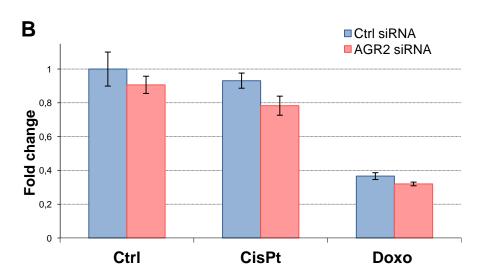


Figure S4. MTT assay. A549 (A) and MCF-7 (B) cells transfected either with control siRNA or siRNA against AGR2 were exposed to cisplatin or doxorubicin for 48 hrs. This experiment was performed in five technical replicates for each treatment.

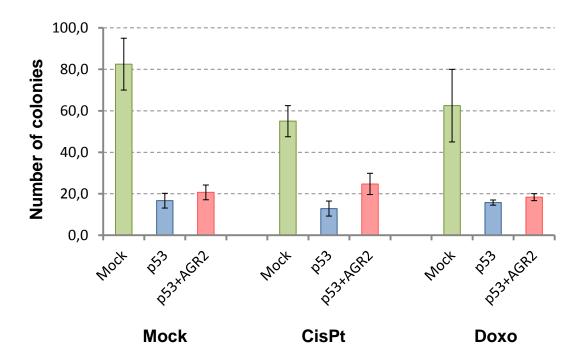


Figure S5. Colony forming assay. H1299 cells either mock transfected or transfected with p53 or co-transfected with AGR2 and p53 were diluted and seeded into six-well plates and exposed to low doses of cisplatin or doxorubicin. The number of colonies was counted after 14 days. Each combination was analyzed in 6 technical replicates in six well plates.

Α

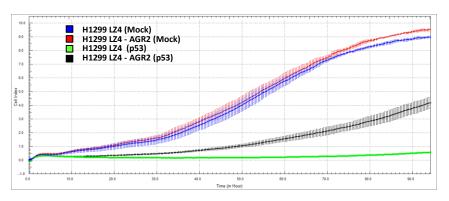
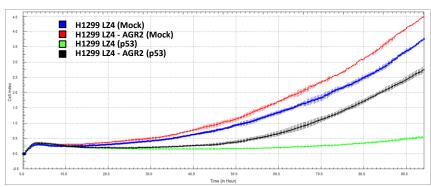
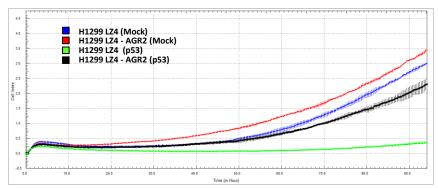


Figure S6. Cell proliferation and cytotoxicity testing. Proliferation profiles of H1299-LZ4 cells and H1299-LZ4-AGR2 either mock- or p53- transfected. Cells were untreated (A), exposed to cisplatin (B) or doxorubicin (C).

В



C



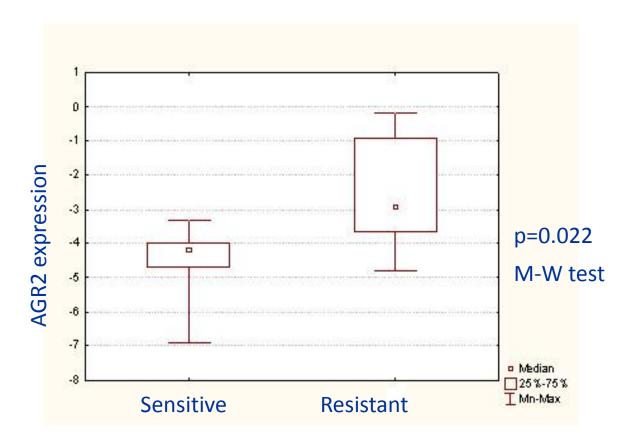


Figure S7. Box/Whisker plot demonstrating sensitivity of *ex vivo* cultured breast cancer cells to doxorubicin with respect to *AGR2* expression.

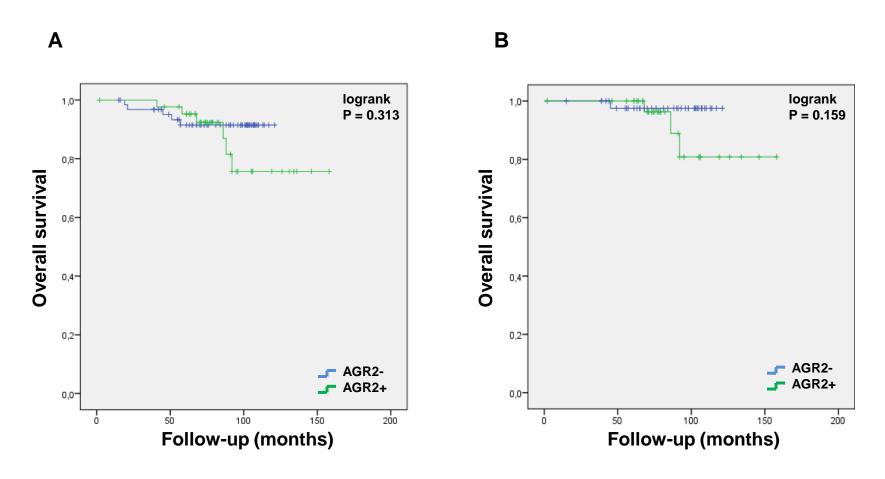


Figure S8. Overall survival of 115consecutive breast cancer patients who received anthracyclines in adjuvant treatment with respect to AGR2 IHC staining (A); overall survival in subgroup of breast cancer patients with wt p53 only (B).

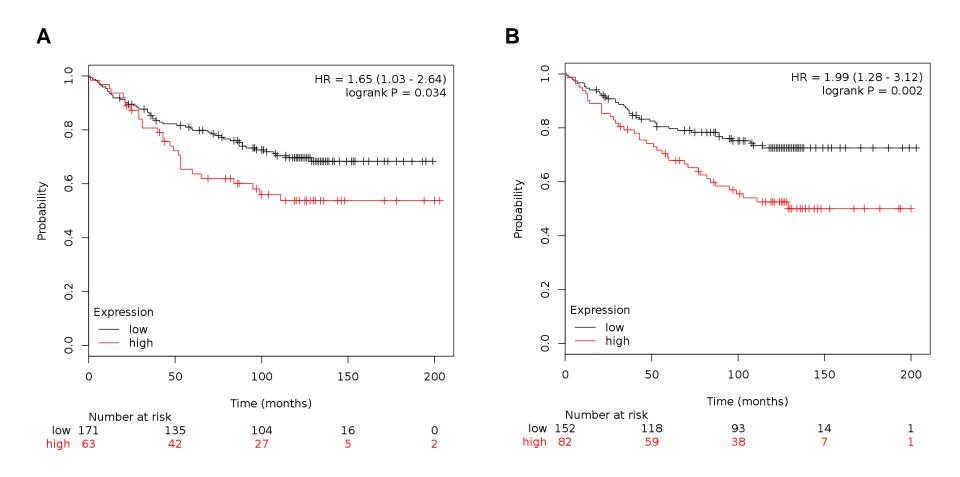


Figure S9. Online survival meta-analysis in cohort of ER-positive, wt p53 breast tumors in relation to *AGR2* (A) and *DUSP10* (B) expression.

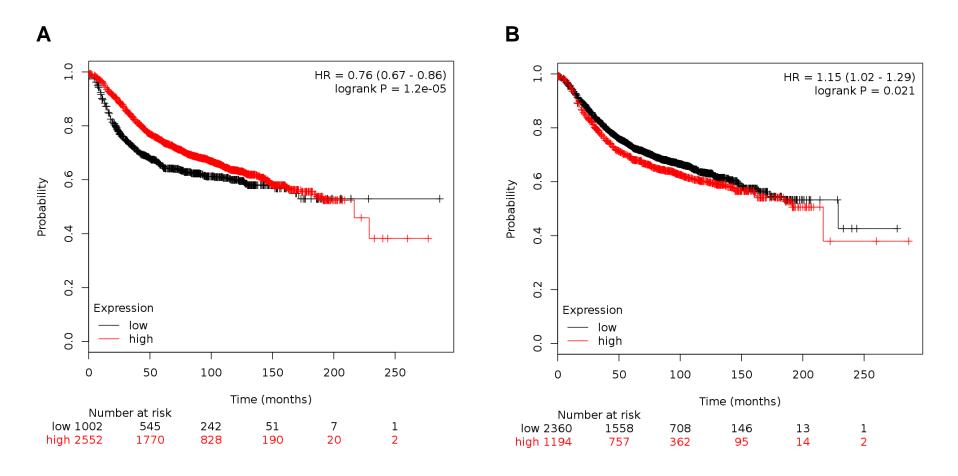


Figure S10. Online survival meta-analysis in whole cohort of breast tumors in relation to *AGR2* (A) and *DUSP10* (B) expression.