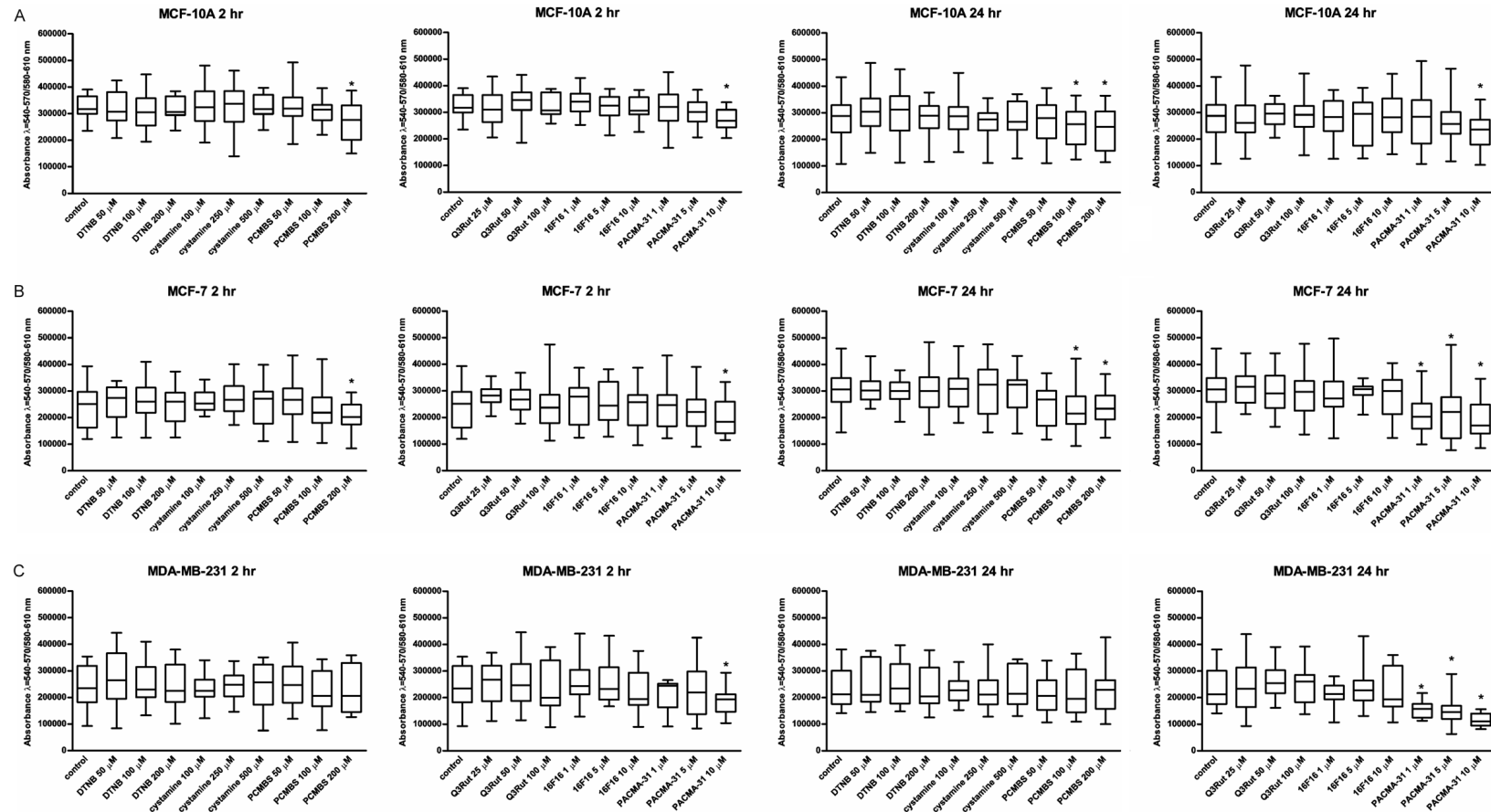
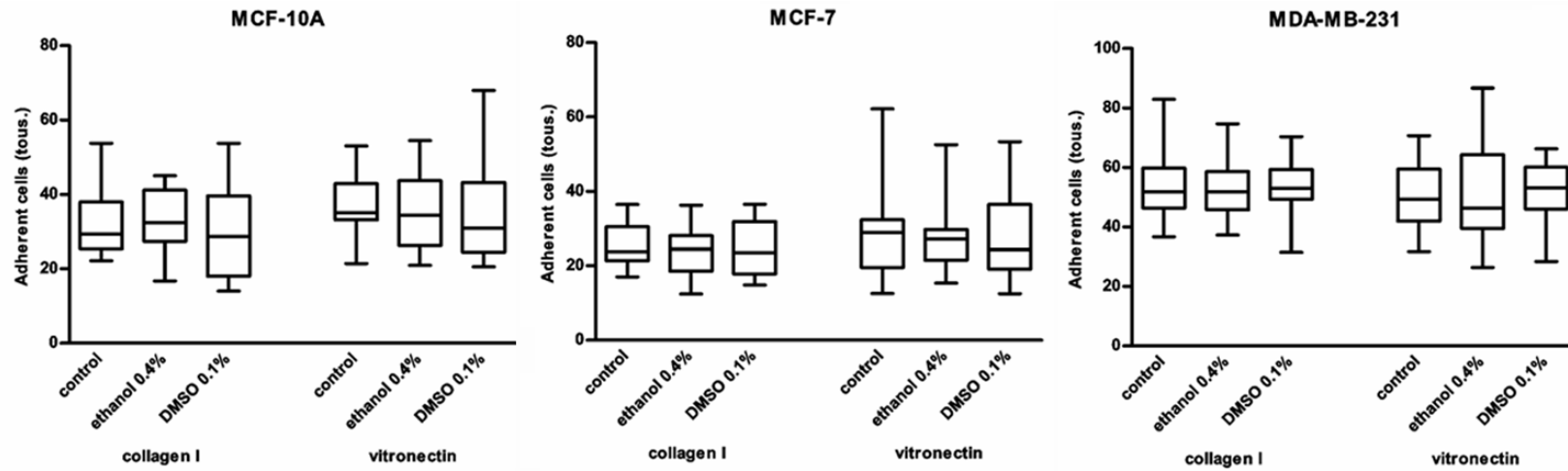


Thiols and breast cancer cells

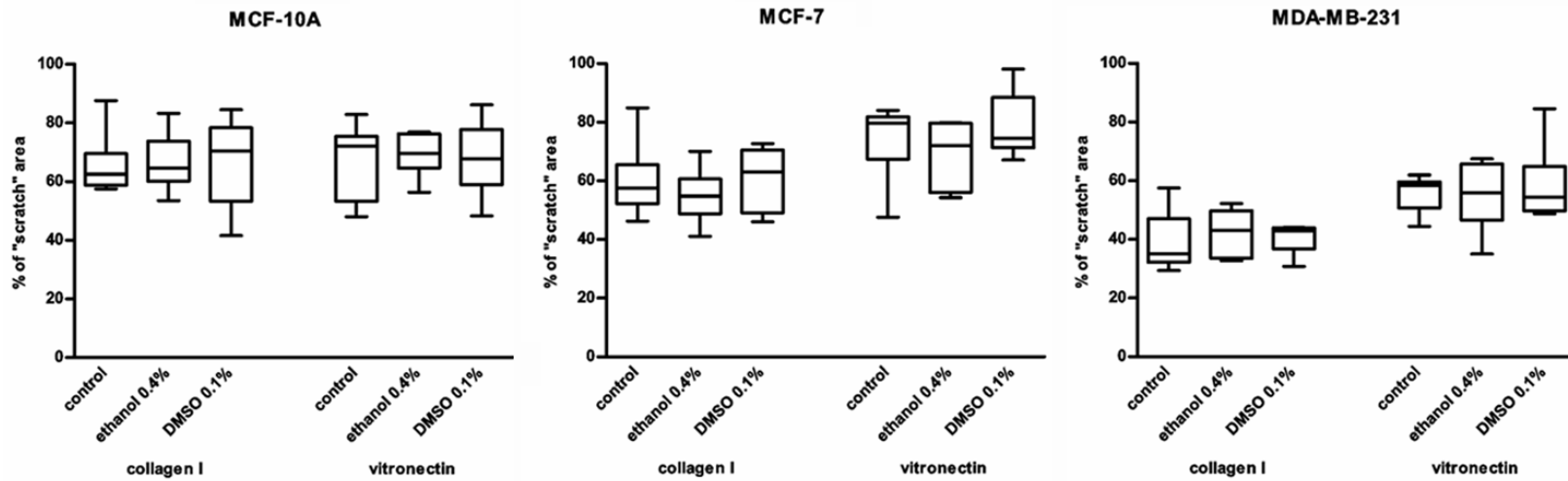


Supplementary Figure 1. Anti-proliferative and cytotoxic effects of various PDI inhibitors and free thiol blockers on three cell lines: MCF-10A (A), MCF-7 (B) and MDA-MB-231 (C). Data presented as mean + SD; mini-max ranges marked as whiskers; n=6. Long-time cytotoxicity was tested following 24-hour incubation. Short-time cytotoxicity was tested following 2-hour incubation. Total number of living cells was estimated using PrestoBlue assay. Significance of differences were calculated using one-way ANOVA and the post-hoc multiple comparisons Tukey' test. Planned comparisons were verified the bootstrap-boosted unpaired student's t test (10000 iterations) with the Bonferroni's correction for multiple comparisons.

Thiols and breast cancer cells

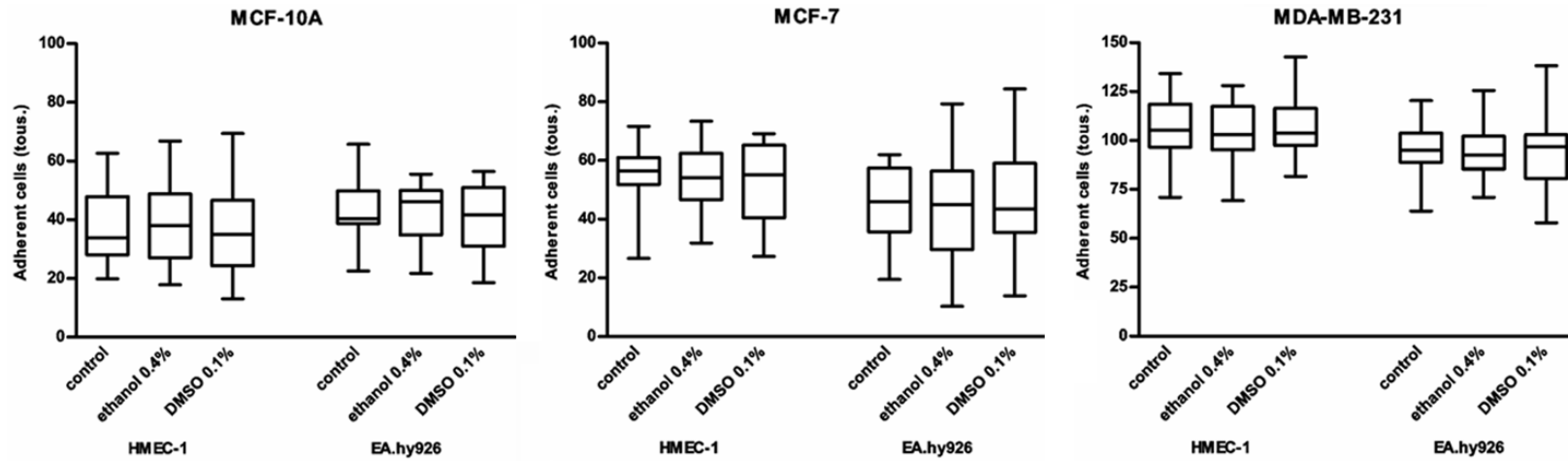


Supplementary Figure 2. Adhesion of MCF-10A, MCF-7 and MDA-MB-231 cells to collagen type I and vitronectin in the presence of different solvents. Data presented as mean + SD; mini-max ranges marked as whiskers; n=3. Total numbers of adherent cells were estimated with BCA Protein Assay. Significance of differences was analysed with one-way ANOVA and the post-hoc multiple comparisons Tukey's test and planned comparisons were verified the bootstrap-boosted unpaired student's t test (10000 iterations) with the Bonferroni's correction for multiple comparisons.



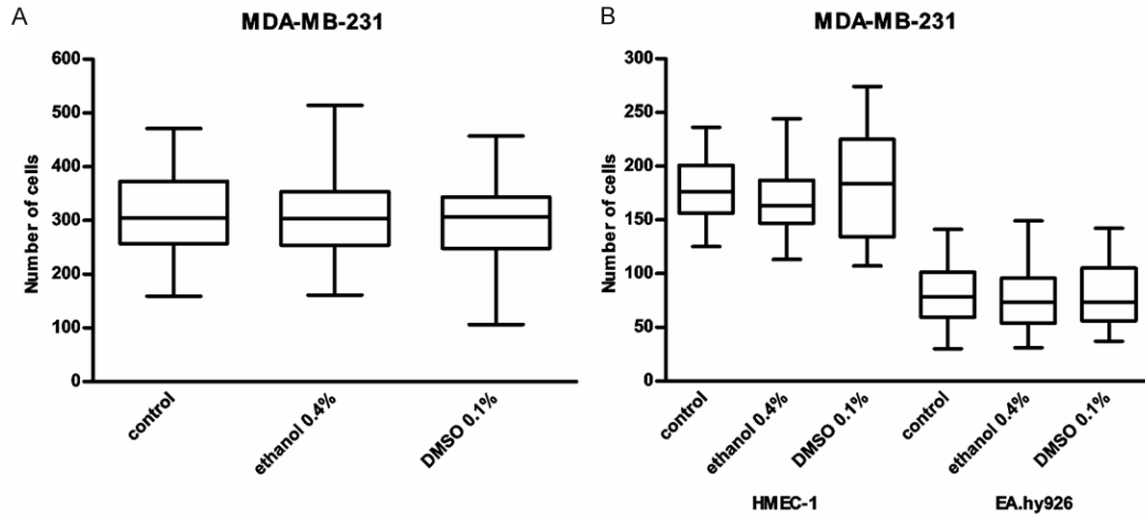
Thiols and breast cancer cells

Supplementary Figure 3. Migration of MCF-10A, MCF-7 and MDA-MB-231 cells on collagen type I and vitronectin in the presence of different solvents. Data presented as mean + SD; mini-max ranges marked as whiskers; n=3. Significance of differences was analysed with one-way ANOVA and the post-hoc multiple comparisons Tukey's test and planned comparisons were verified the bootstrap-boosted unpaired student's t test (10000 iterations) with the Bonferroni's correction for multiple comparisons.



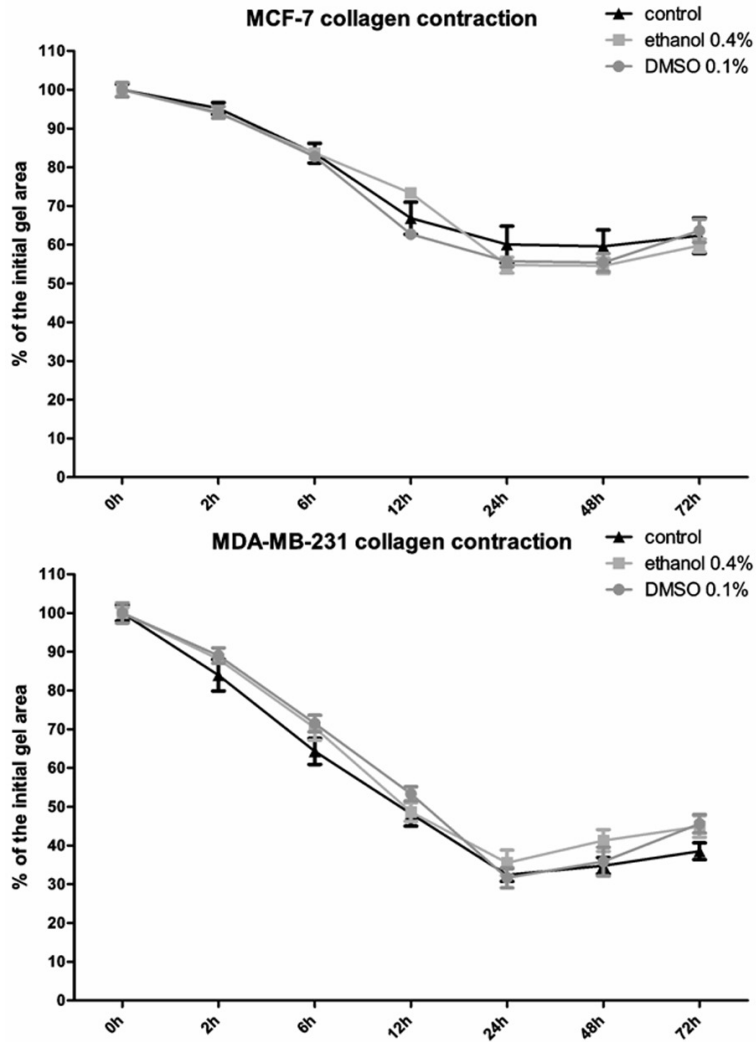
Supplementary Figure 4. Adhesion of MCF-10A, MCF-7 and MDA-MB-231 cells to endothelial cells HMEC-1 and EA.hy926 in the presence of different solvents. Data presented as mean + SD; mini-max ranges marked as whiskers; n=3. Total numbers of adherent cells were estimated with a multifunctional plate reader. Significance of differences was analysed with one-way ANOVA and the post-hoc multiple comparisons Tukey's test and planned comparisons were verified the bootstrap-boosted unpaired student's t test (10000 iterations) with the Bonferroni's correction for multiple comparisons.

Thiols and breast cancer cells



Supplementary Figure 5. Migration of MDA-MB-231 cells through the gelatin-coated transwell chamber (A) and monolayer of endothelial cells (B) in the presence of different solvents. Data presented as mean + SD; mini-max ranges marked as whiskers; n=3. Significance of differences was analysed with one-way ANOVA and the post-hoc multiple comparisons Tukey's test and planned comparisons were verified the bootstrap-boosted unpaired student's t test (10000 iterations) with the Bonferroni's correction for multiple comparisons.

Thiols and breast cancer cells



Supplementary Figure 6. Collagen gel contraction by MCF-7 and MDA-MB-231 cells in the presence of different solvents. Data presented as mean + SD; mini-max ranges marked as whiskers; n=3. The area of the collagen gel was measured using the National Institute of Health (NIH) ImageJ software. Significance of differences was analysed with one-way ANOVA and the post-hoc multiple comparisons Tukey's test and planned comparisons were verified the bootstrap-boosted unpaired student's t test (10000 iterations) with the Bonferroni's correction for multiple comparisons.