



Supplementary Materials

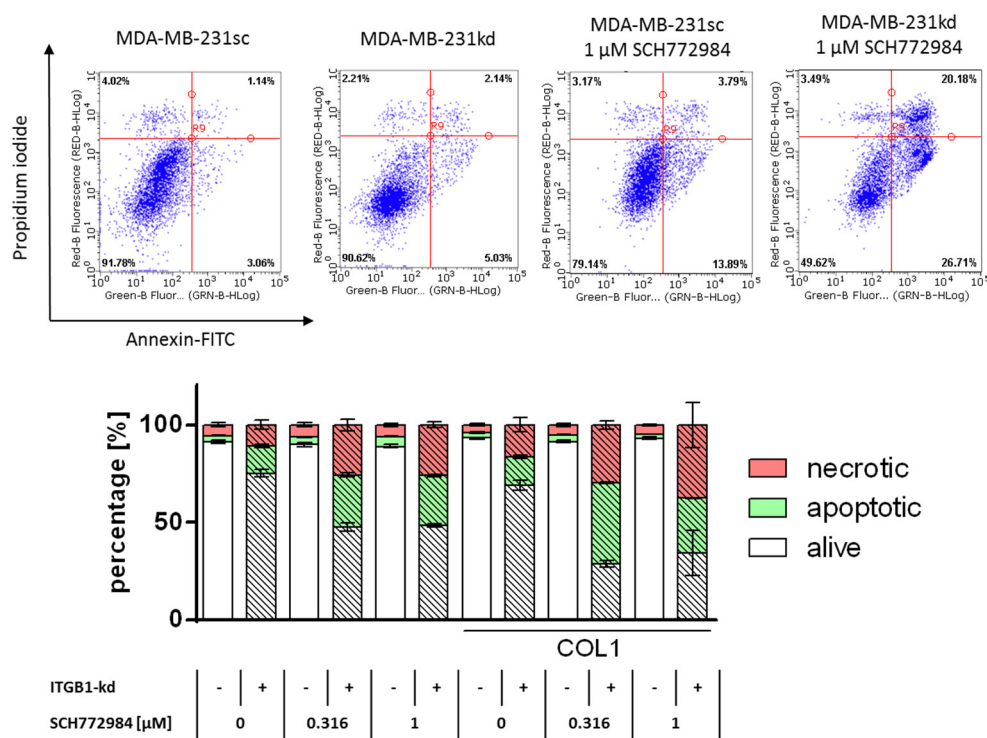


Figure S1. Annexin V-FITC/Propidium iodide assay of SCH772984 (0.316 μ M and 1 μ M, for 48 h) incubated MDA-MB-231 scrambled (sc) and integrin β_1 -knockdown (ITGB1-kd) cells in the presence and absence of collagen type 1 (COL1, n = at least 3 biological samples).

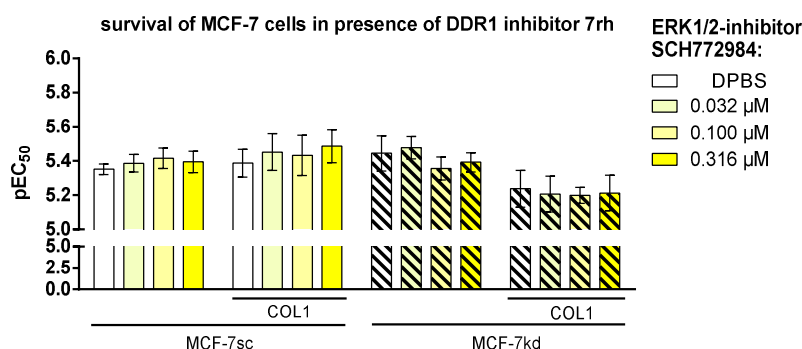


Figure S2. Combination effect of 7rh and SCH772984 cytotoxicity in MCF-7 scrambled (sc) and integrin β_1 -knockdown (kd) cells in the presence and absence of collagen type 1 (COL1), displayed by the pEC₅₀ values of 7rh cytotoxicity in dependence of SCH772984 (n = at least 3 biological samples). MCF-7 cells showed no sensitization upon this combination treatment. Statistical analysis was performed via unpaired t-test.

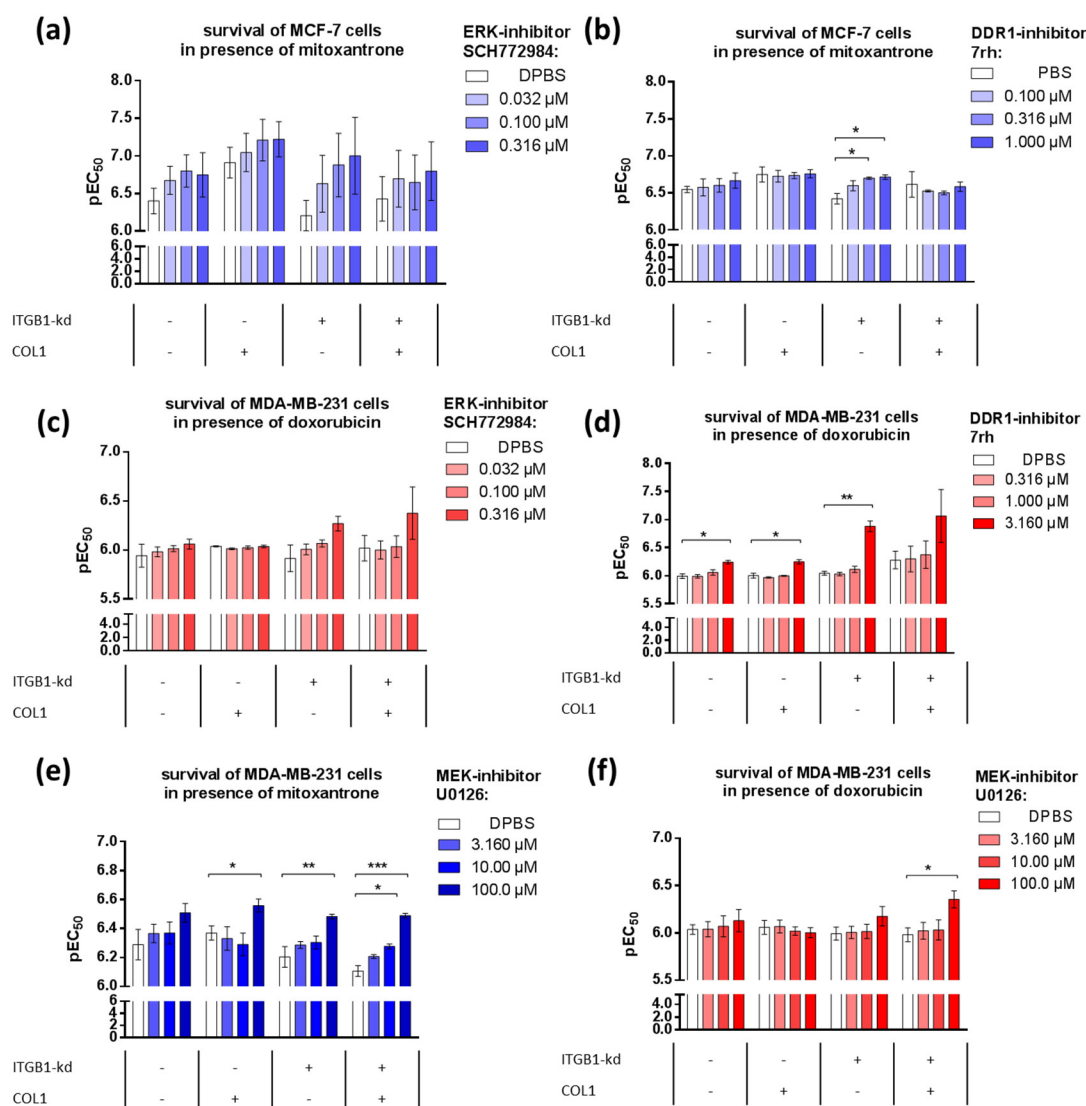


Figure S3. The impact of ERK1/2, MEK1/2 and DDR1-inhibitors on the cytotoxic treatment of MDA-MB-231 and MCF-7 scrambled and integrin β 1-knockdown (ITGB1-kd) cells with doxorubicin or mitoxantrone in combinatory approaches in the presence and absence of collagen type 1 (COL1). **(a,b)** The ERK1/2-inhibitor SCH772984 **(a)** and DDR1-inhibitor 7rh **(b)** were combined with mitoxantrone in MCF-7 cells. **(c,d)** The ERK1/2-inhibitor SCH772984 **(c)** and DDR1-inhibitor 7rh **(d)** were combined with doxorubicin in MDA-MB-231 cells. **(e,f)** The MEK1/2-inhibitor U0126 was combined with **(e)** mitoxantrone and **(f)** doxorubicin in MDA-MB-231 cells. The cytostatics were applied in increasing concentrations to gain a pEC₅₀ value. The inhibitors were additionally added at a constant concentration. Shown are means of pEC₅₀ values and statistical analysis was performed using unpaired t-test (* $p < 0.05$; ** $p < 0.01$, $n = 3$ biological samples).

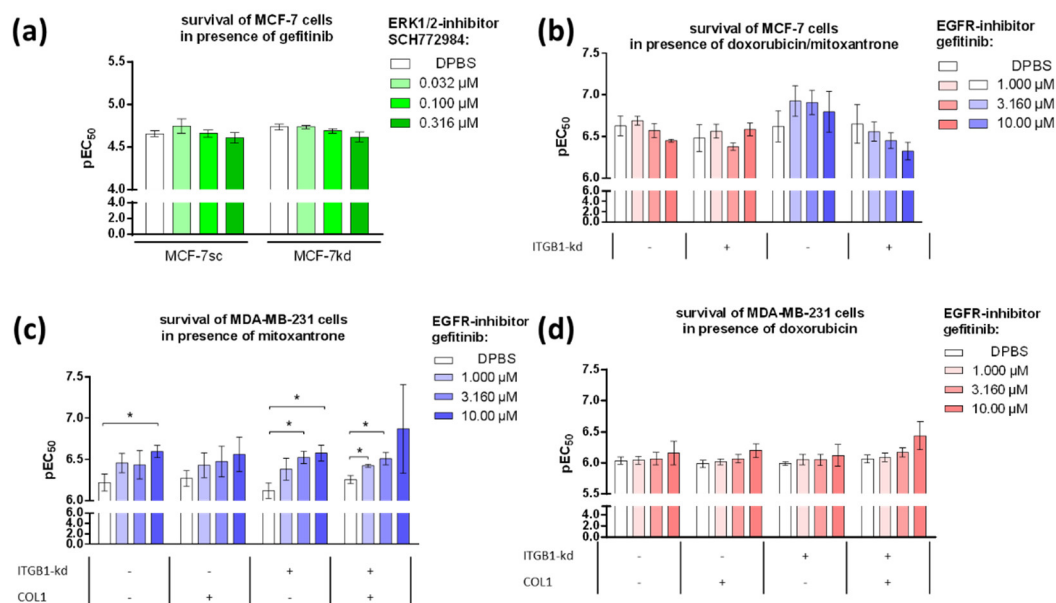


Figure S4. (a) Survival of MCF-7 scrambled (sc) and integrin β_1 -knockdown (ITGB1-kd) cells in the presence of gefitinib in dependence of SCH772984. Inhibition of EGFR by gefitinib had no further synergistic effect with ERK1/2-inhibition in MCF-7 cells. (b) Survival of MCF-7 and (c,d) MDA-MB-231 sc and kd cells in the presence and absence of collagen type 1 (COL1). The cells were incubated with mitoxantrone or doxorubicin in dependence of EGFR inhibitor gefitinib. Statistical analysis was performed via unpaired t-test (n = at least 3 biological samples, $*p < 0.05$).

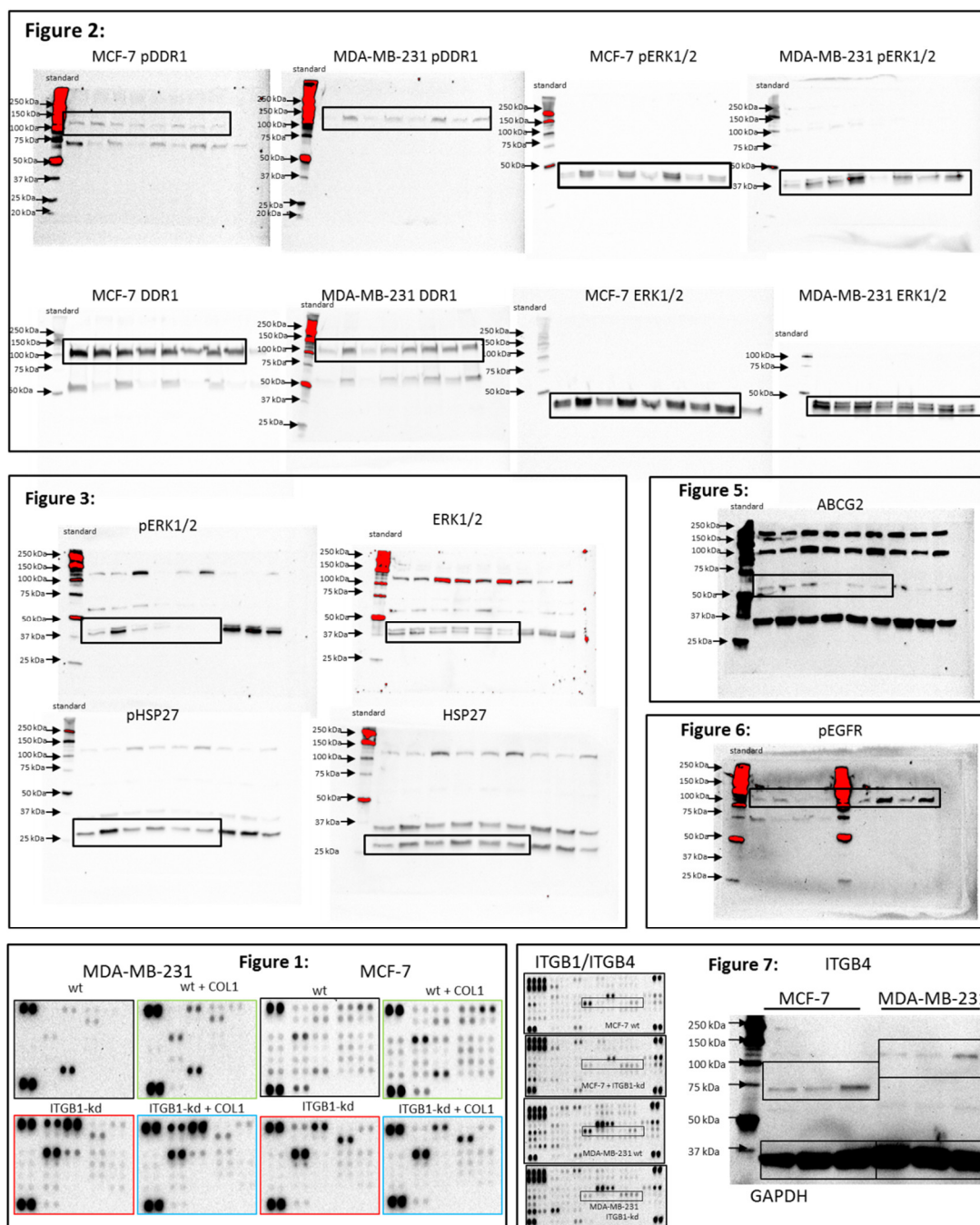


Figure S5: Representative uncut Western blots and proteome profiler arrays, which are partly shown in Figures 1–7.

