

Figure S1. Cell cycle analysis with the combination treatment of defactinib and olaparib. (A) G₂/M populations with the combination treatment relative to each single treatment were analyzed using the BD Accuri C6 Plus flow cytometer. MDA-MB-231 cells were treated for 48 h with DMSO or the indicated concentrations of olaparib and/or defactinib as shown in Fig. 3. (B) As described in (A), G₂/M populations were analyzed by FACSCalibur in MCF-7 cells treated for 24 h with DMSO or the indicated concentrations of the drugs as shown in Fig. 3. **P<0.01.

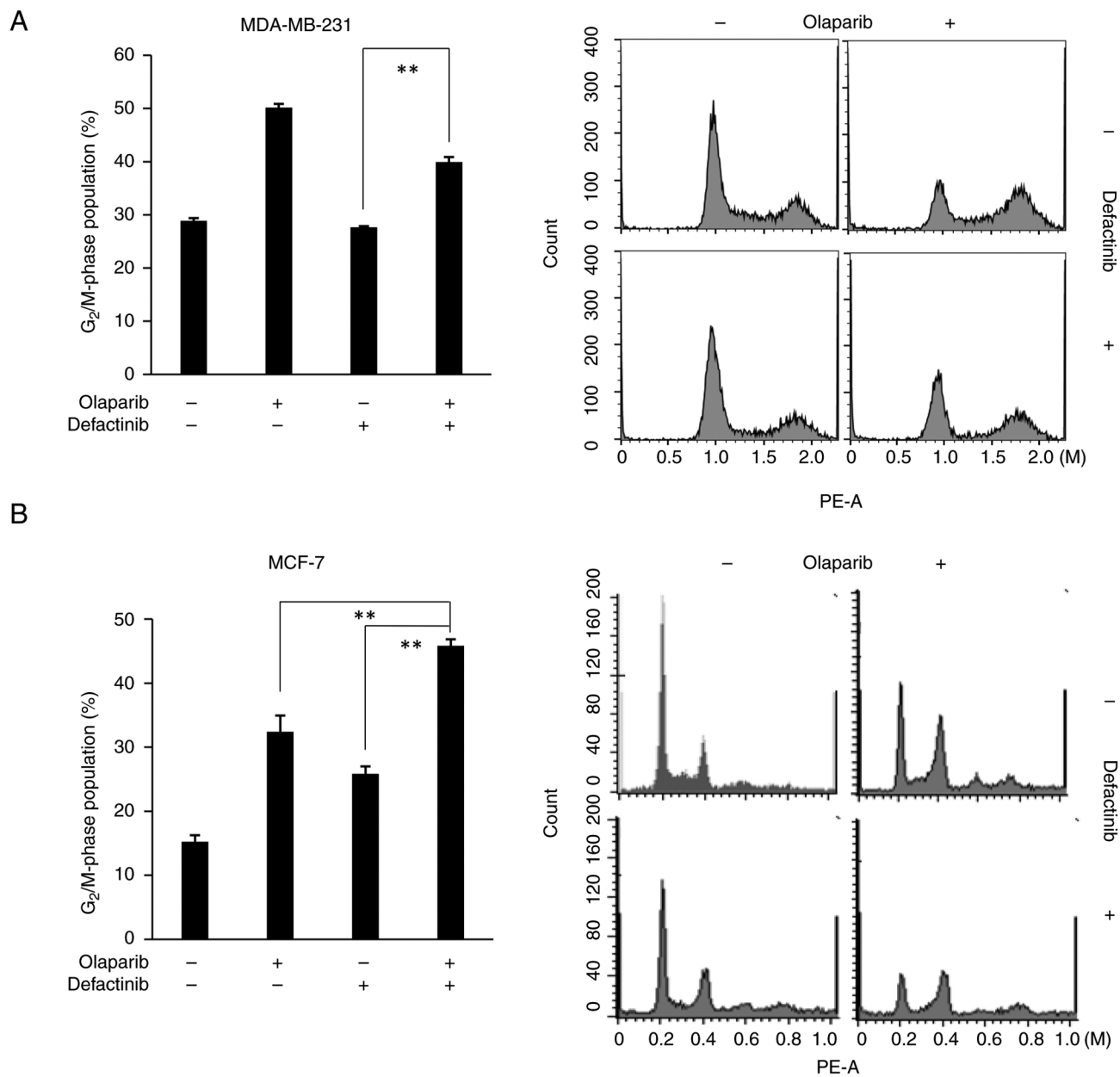


Figure S2. (A) MAPK (RAS/RAF/ERK) pathway and (B) AKT (PI3K/AKT) pathway in MDA-MB-231 and MCF-7 cells. The dependence of the regulation on the MAPK and AKT pathways was compared in MCF-7 cells with that in MDA-MB-231 cells. The relative expression of proteins is indicated in the figures.

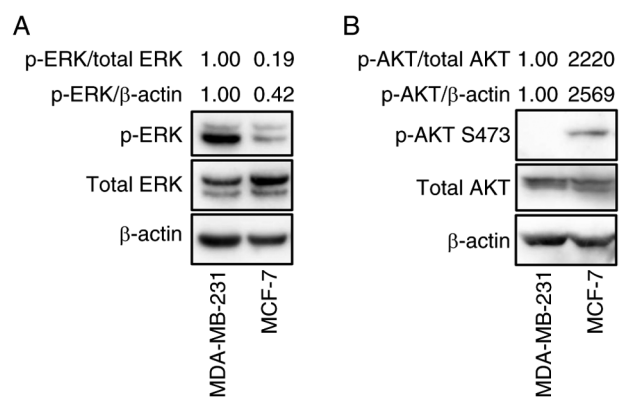


Figure S3. Western blotting data for apoptosis-related proteins in MDA-MB-231 cells. The densitometry bar graphs and statistical comparisons for western blots shown in Fig. 4A-D. * $P < 0.05$. NS, not significant. PARP, poly ADP-ribose polymerase; XIAP, X-linked inhibitor of apoptosis protein.

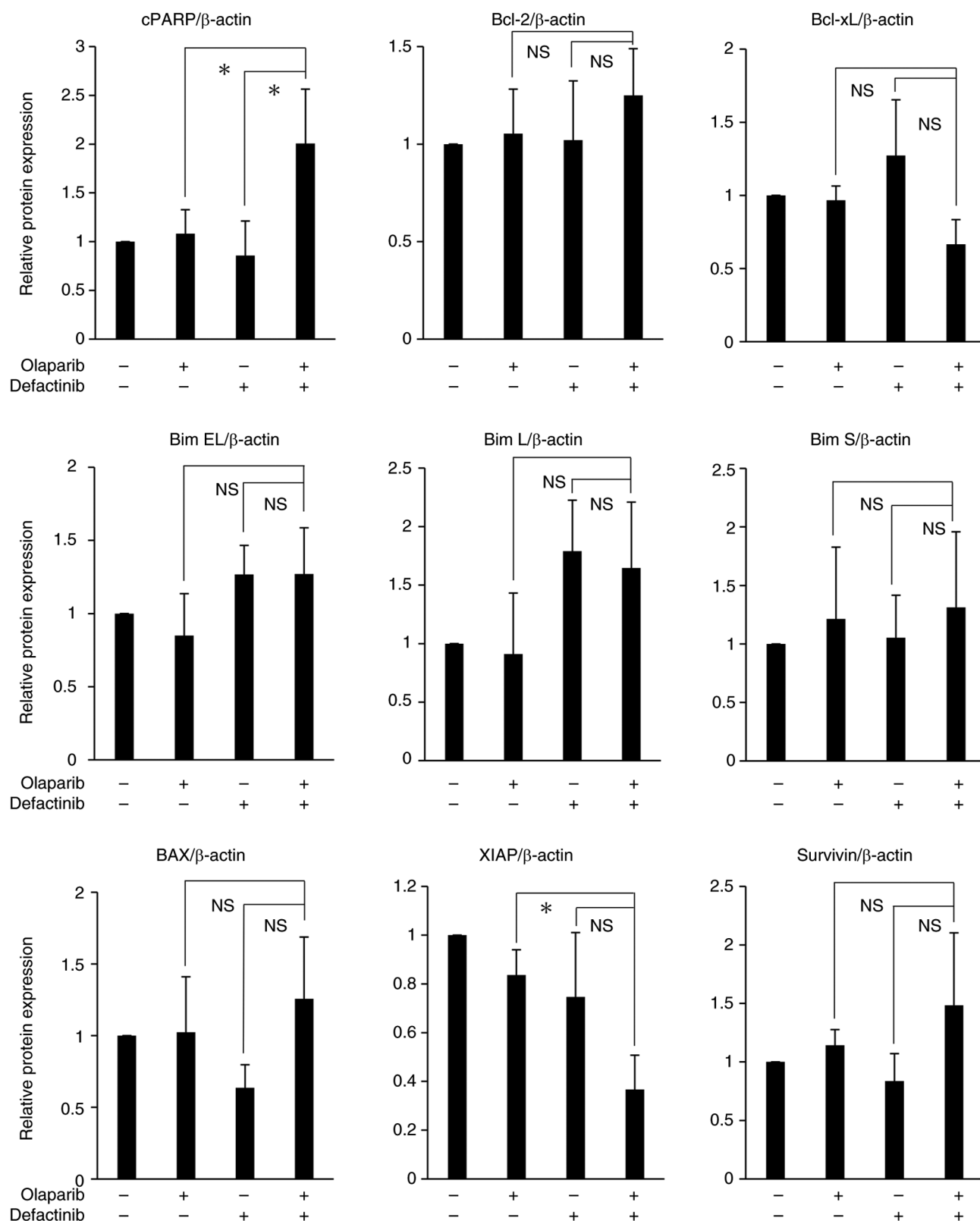


Figure S4. Western blotting data for cell cycle-related proteins in MCF-7 cells. The densitometry bar graphs and statistical comparisons for western blots shown in Fig. 4E. *P<0.05. NS, not significant. p-, phosphorylated.

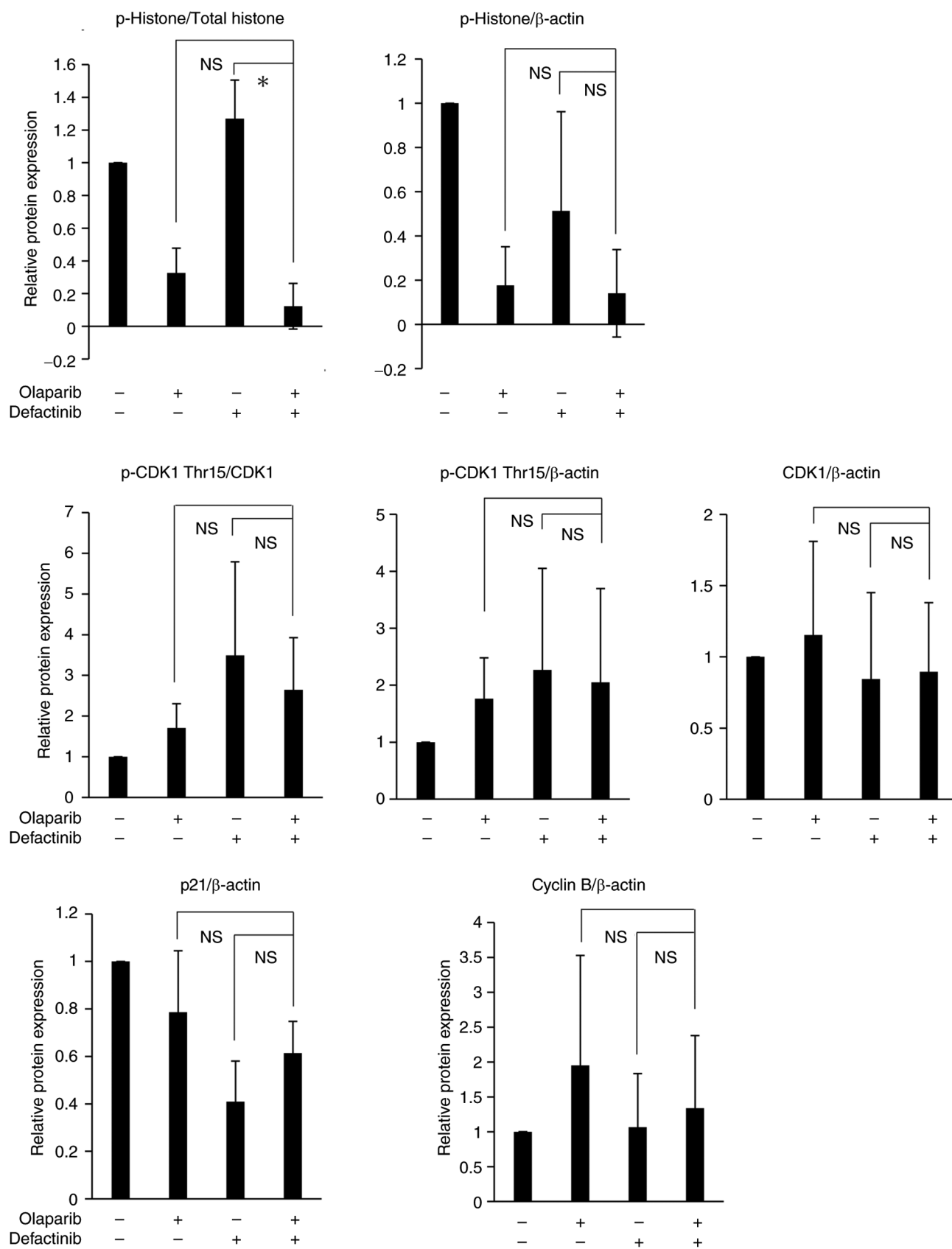


Figure S5. Cell viability inhibition and BRCA expression by another FAK inhibitor GSK2256098. (A) MDA-MB-231 and MCF-7 cells were treated with DMSO or the indicated concentrations of GSK2256098. The inhibition of cell viability for 72 h was evaluated using Cell Counting Kit-8. The relative cell viability with each treatment was calculated by comparisons with DMSO samples. (B) BRCA1 and BRCA2 expression at the mRNA level was examined in MDA-MB-231 cells treated with the indicated concentrations of GSK2256098 for 48 h and in MCF-7 cells for 24 h analyzed by reverse transcription-quantitative PCR. **P<0.01 vs. DMSO samples. NS, not significant; FAK, focal adhesion kinase.

