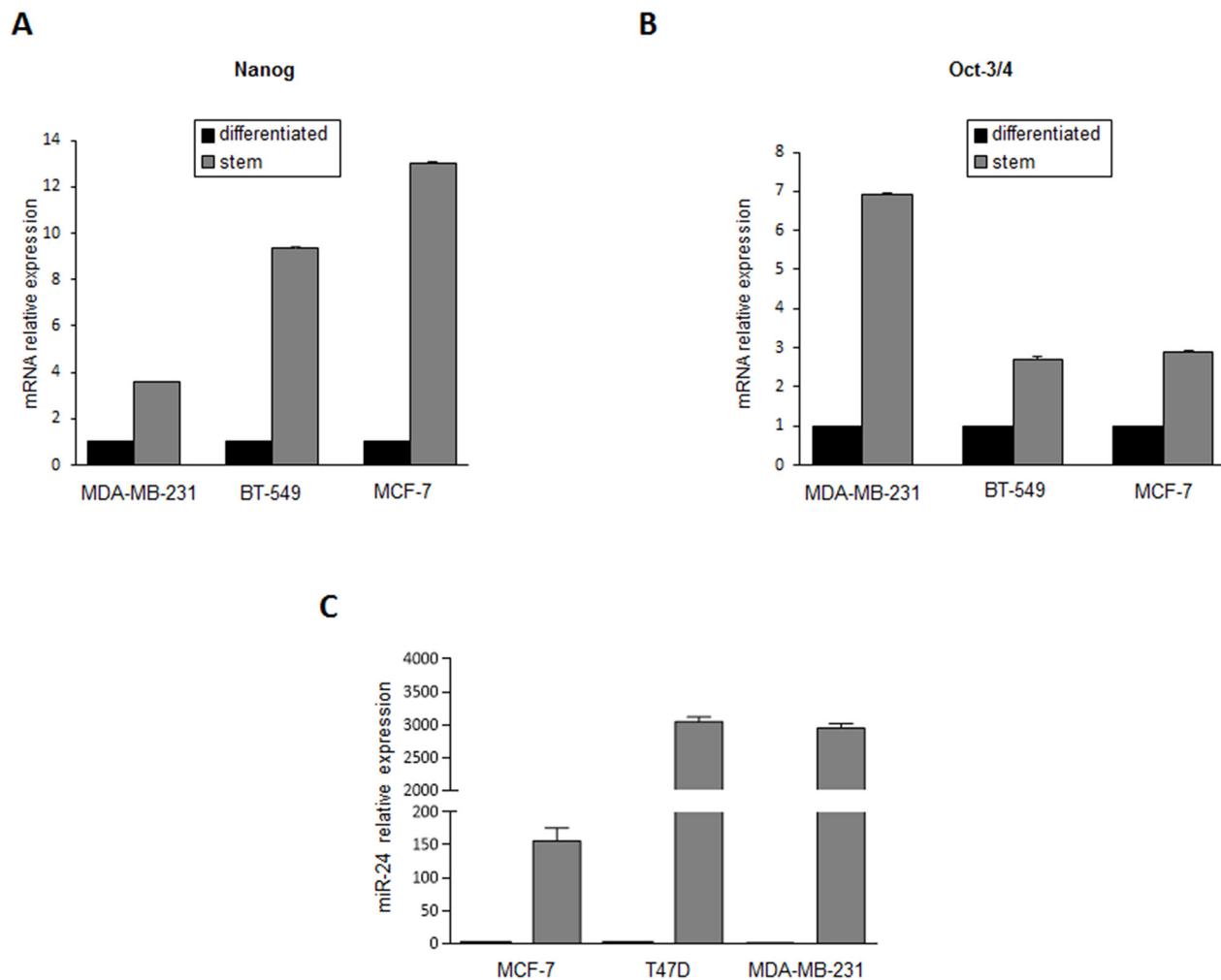
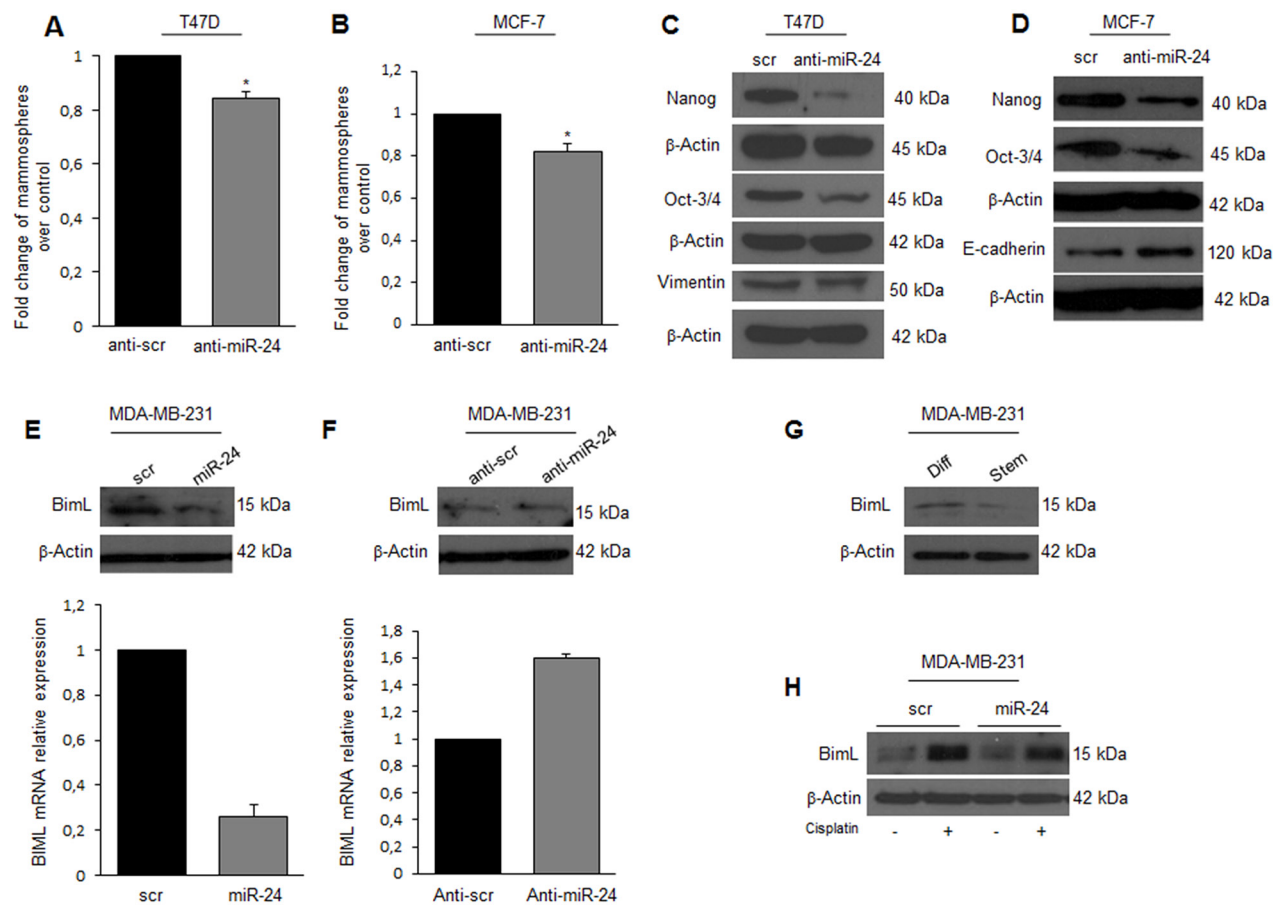


MiR-24 induces chemotherapy resistance and hypoxic advantage in breast cancer

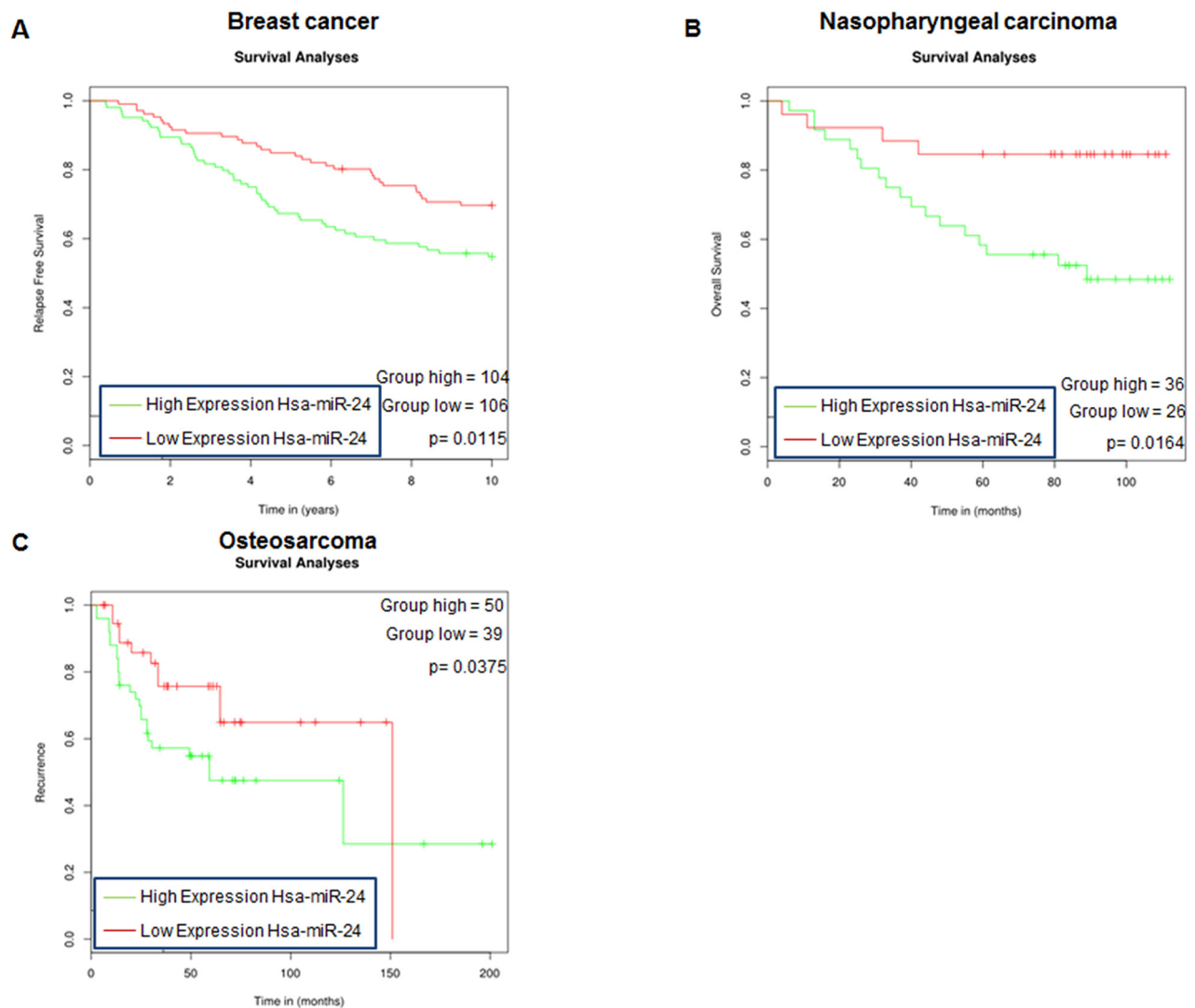
SUPPLEMENTARY FIGURES



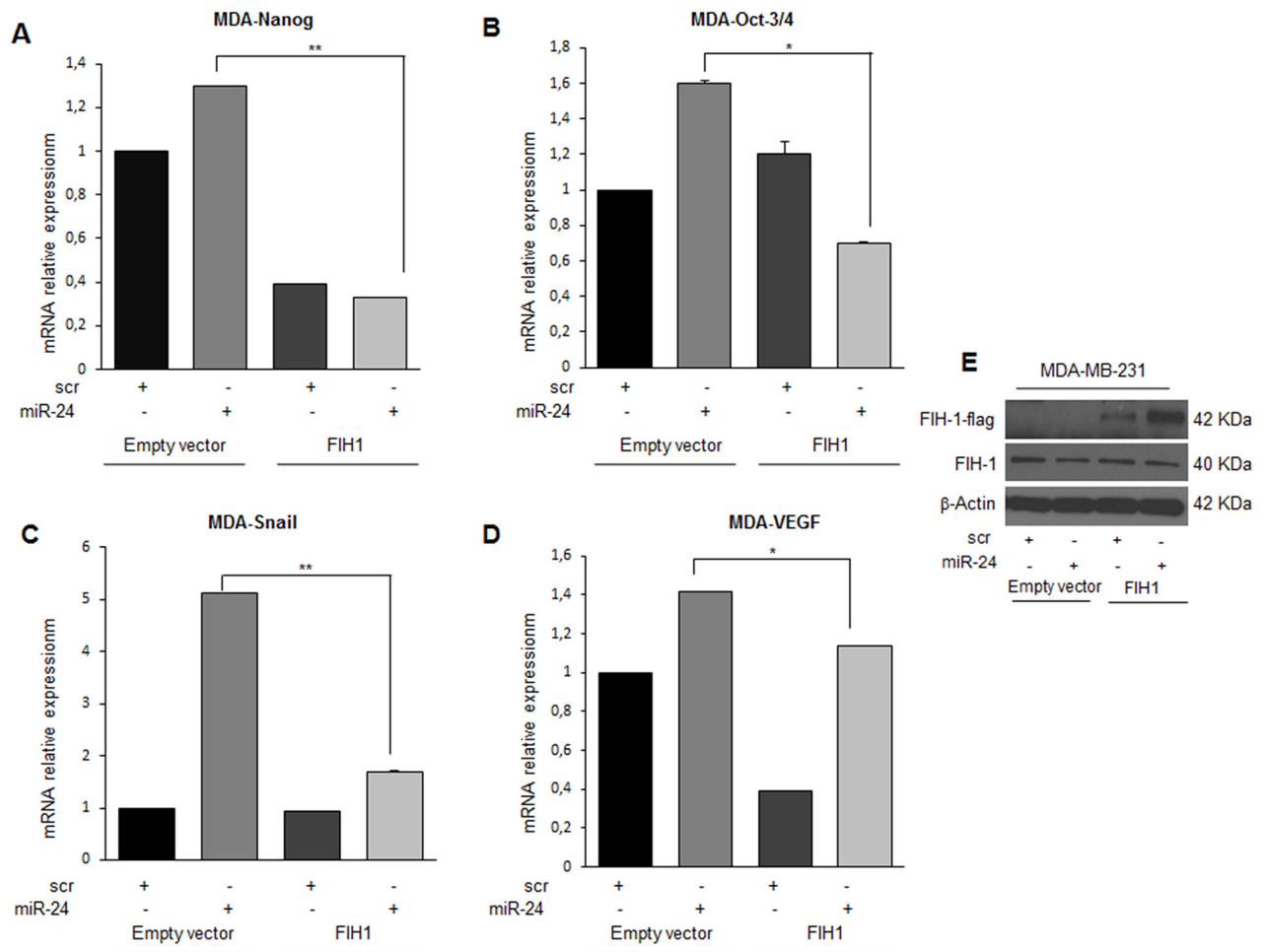
Supplementary Figure 1: Expression of stem markers in MCF7 and MDA-MB-231 cells and of miR-24 after transfection. Real time PCR showed the upregulation of *Nanog* and *Oct-3/4* in MDA-MB-231, BT-549 and MCF-7 mammospheres cultures compared to differentiated cells **A, B**. MiR-24 expression levels in MCF-7, T47D, and MDA-MB-231 cells after transfection **C**.



Supplementary Figure 2: MiR-24 effects on breast cancer cells. Anti-miR-24 transfection induced a 20% reduction of mammospheres in both T47D and MCF-7 **A, B**, and of stem cell markers **C, D**. MiR-24 downregulates BimL at mRNA and protein levels, as assessed by qRT-PCR and Western blotting in MDA-MB-231 **E**. On the other hand, anti-miR-24 increased in BimL expression **F**. Endogenous levels of BimL are higher in MDA-MB-231 differentiated cells compared to stem cells **G**. MiR-24 transfection reduced cisplatin effect on BimL levels **H**. Western blotting analyses are from representative experiments. Data are mean values \pm SD of two independent experiments. In **A, B**, significance was calculated using Student's t-test. *, $p < 0.05$.



Supplementary Figure 3: Survival correlation of miR-24 in several human cancer datasets. **A.** GEO dataset Title “Analysis of early primary breast cancer to identify prognostic markers and associated pathways: mRNA and miRNA profiling”. **B.** GEO dataset Title “MicroRNA Signatures Correlate with Diagnosis, Distant Metastasis and Prognosis in nasopharyngeal carcinoma”. **C.** GEO dataset Title “microRNA- and mRNA-based studies in paraffin-archived human osteosarcoma specimens reveal profiles with reproducible and independent prognostic value”.



Supplementary Figure 4: FIH1 reverts the effects of miR-24 on stem markers and on HIF1 α in MDA-MB-231. FIH1 cDNA transfection in MDA-MB-231 cells abolished the effect of miR-24 on *Nanog* and *Oct-3/4* expression **A, B**. FIH1 also reverted the effect of the miR-24 on *Snail* and *VEGF* **C, D**. Western blot analysis of FIH1 expression in the rescue experiment in MDA-MB-231 cells upon hypoxia **E**. In **A, B, C,** and **D** data are mean values \pm SD from two independent experiments. Significance was calculated using Student's t-test. *, $p < 0.05$; **, $p < 0.01$.