Figure S1. Efficiency of DCXR knock down and overexpression in human breast cancer cell lines. (A) Reverse transcription-quantitative PCR and (B) western blotting were used to assess relative mRNA and protein levels of DCXR in MDA-MB-231, BT-474, T47D, ZR751, MCF-7 and MCF-10A cells. **P<0.01, ***P<0.001 vs. MCF-10A. DCXR-targeted shRNAs suppressed the relative (C) mRNA and (D) protein levels of DCXR in ZR751 and BT-474 cells. ***P<0.001 vs. shNC. Lentiviral-mediated oeDCXR upregulated expression of DCXR (E) mRNA and (F) protein in MDA-MB-231 cells. ***P<0.001 vs. oeNC. DCXR, dicarbonyl/L-xylulose reductase; NC, negative control; oe, overexpression; sh, short hairpin RNA.

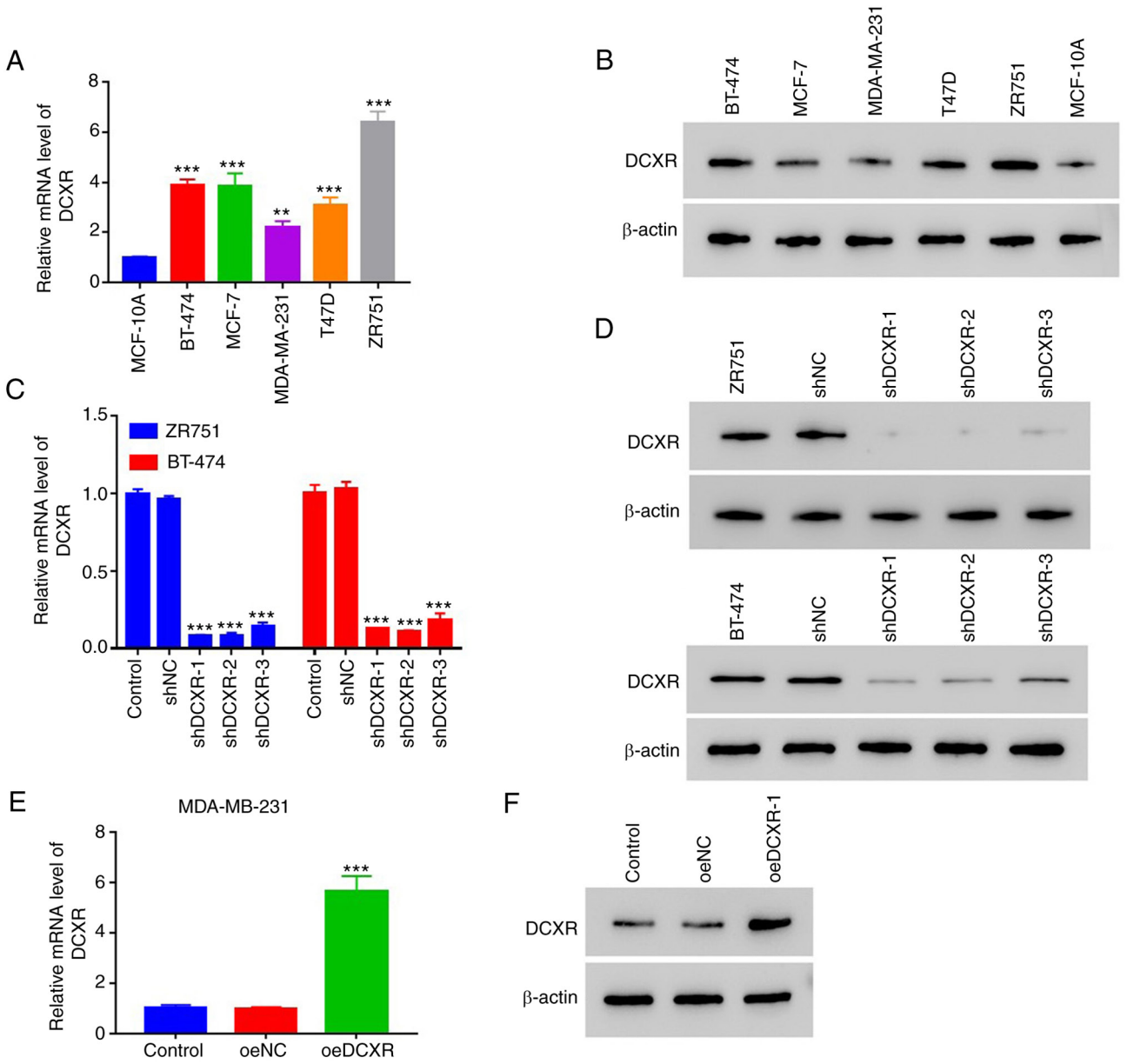

Figure S2. DCXR overexpression promotes proliferation, cell cycle progression and glycolysis in MDA-MB-231 cells. (A) Overexpression of DCXR significantly promoted the proliferation of MDA-MB-231 cells. (B) Cell cycle progression from G1 to S was significantly promoted in oeDCXR-transduced cells. The production of (C) ATP and (D) LD were significantly promoted in oeDCXR-transduced cells. (E) Overexpression of DCXR significantly promoted ECAR in MDA-MB-231 cells. **P<0.01, ***P<0.001 vs. oeNC. DCXR, dicarbonyl/L-xylulose reductase; ECAR, extracellular acidification rate; LD, lactate dehydrogenase; sh, short hairpin; NC, negative control; OD, optical density; oe, overexpression.