

Supplementary Information

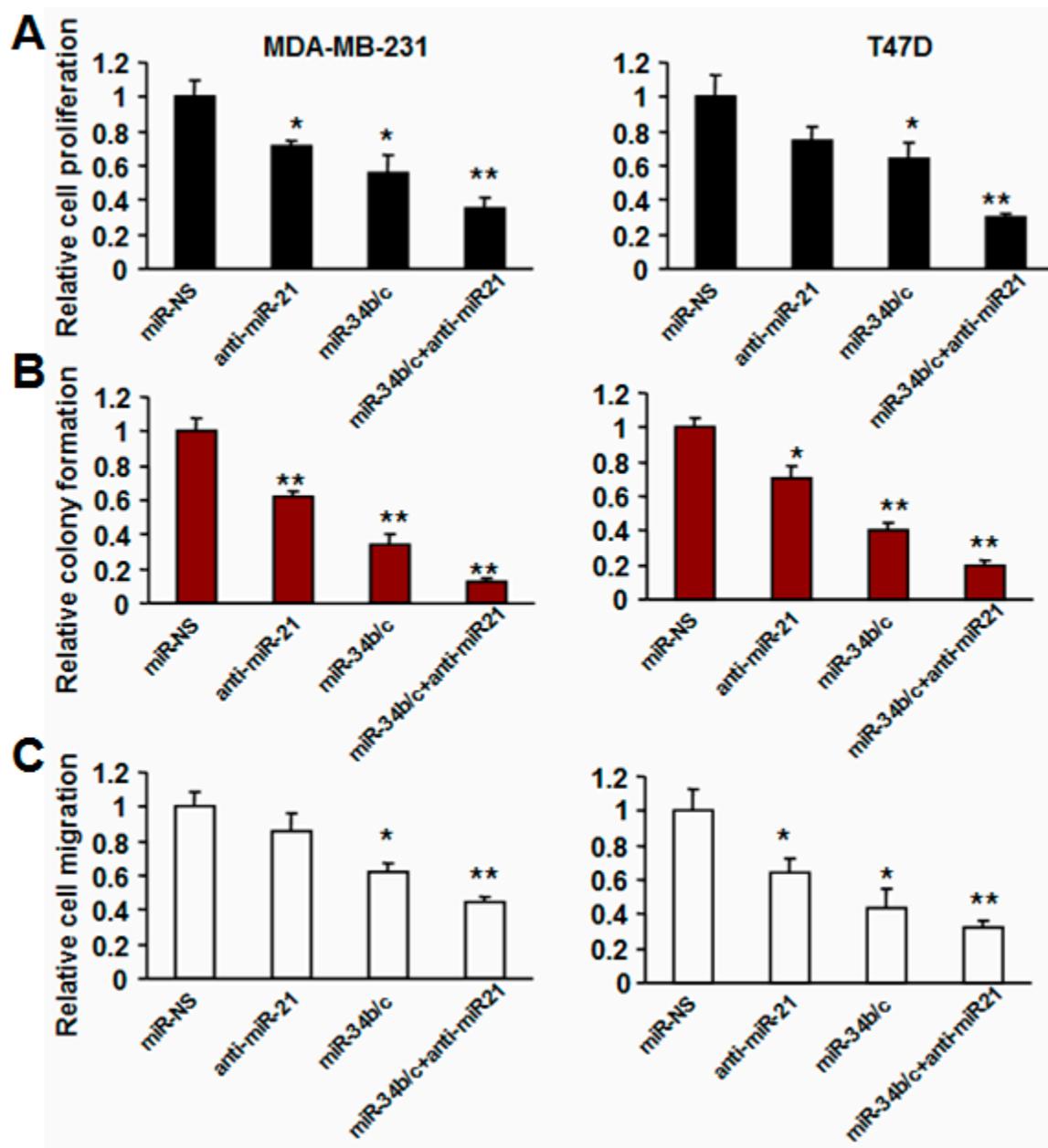


Figure S1. Stable-expression anti-miR-21 and/or miR-34b/c inhibited breast cancer cell proliferation, colony formation, cell migration and tumor growth. (A) T47D and MDA-MB-231 cells were infected with lentivirus carrying non-sense sequence (NS), anti-miR-21 and/or miR-34b/c, and selected with puromycin to obtain stable cell lines. These cells were planted in 6-well plates and the numbers of cells were counted 5 days after the seeding; (B) Soft agar colony assay was performed using these cell lines as above; and (C) Cell lines as above were seeded on the top of a Boyden chamber. The numbers of cells that migrated through the uncoated filter in response to full medium in the interior sides of the chamber were counted. The mean number of cells per field was determined from three fields in three replicated wells. * and ** indicate significant difference at $p < 0.05$ and $p < 0.01$, respectively.

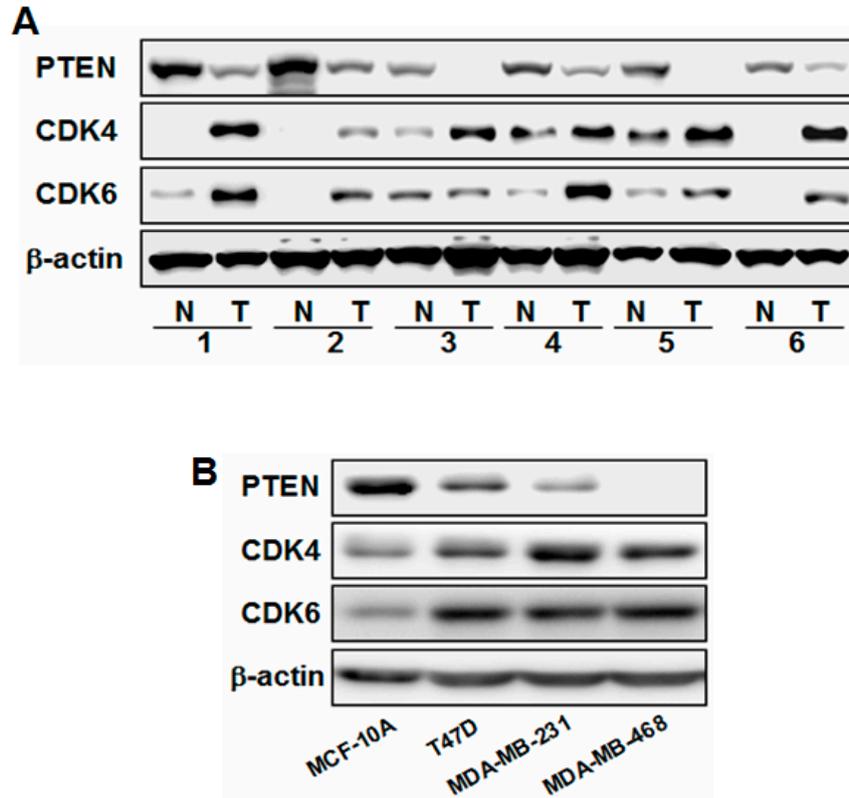


Figure S2. The expression of PTEN, CDK4, and CDK6 in breast cancer tissues and cell lines. (A) Representative of western bolt images showing expression levels of PTEN, CDK4, CDK6, and β -actin in 6 paired normal breast tissues (N) and breast tumor tissues (T); and (B) Levels of PTEN, CDK4, and CDK6 in MCF-10A, T47D, MDA-MB-231 and MDA-MB-468 cells were determined by Western bolt.

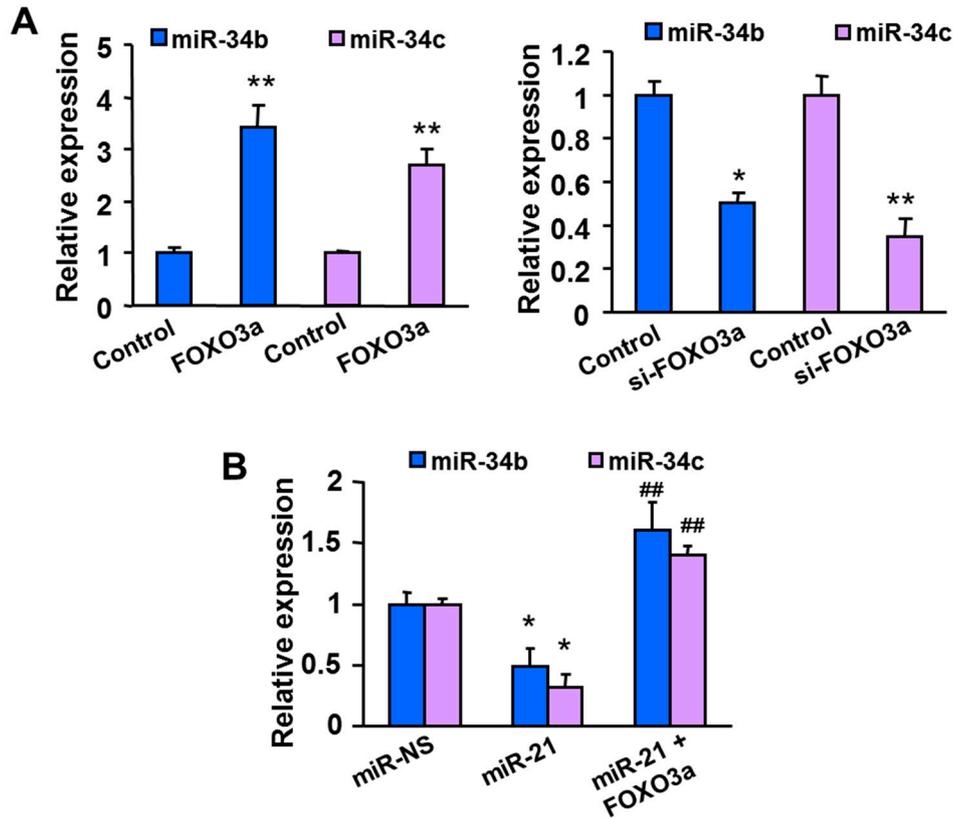


Figure S3. MiR-21 regulated miR-34b/c expression through affecting FOXO3a activity. (A) MCF-10A cells were transfected with plasmid encoding FOXO3a or vector alone, or with siRNA targeting FOXO3a or a non-sense sequence. MiR-34b and miR-34c levels were assessed by RT-qPCR; and (B) MCF-10A cells stably expressing Scr, or miR-21 were infected with lentivirus carrying FOXO3a or Scr. MiR-34b and miR-34c levels were assessed by RT-qPCR; and (All results represent the mean \pm SD from three independent experiments. * and ** indicate significant difference at $p < 0.05$ and $p < 0.01$, respectively; ## indicated significant difference at $p < 0.05$ when “miR-21 + FOXO3a” compared with “miR-21”).