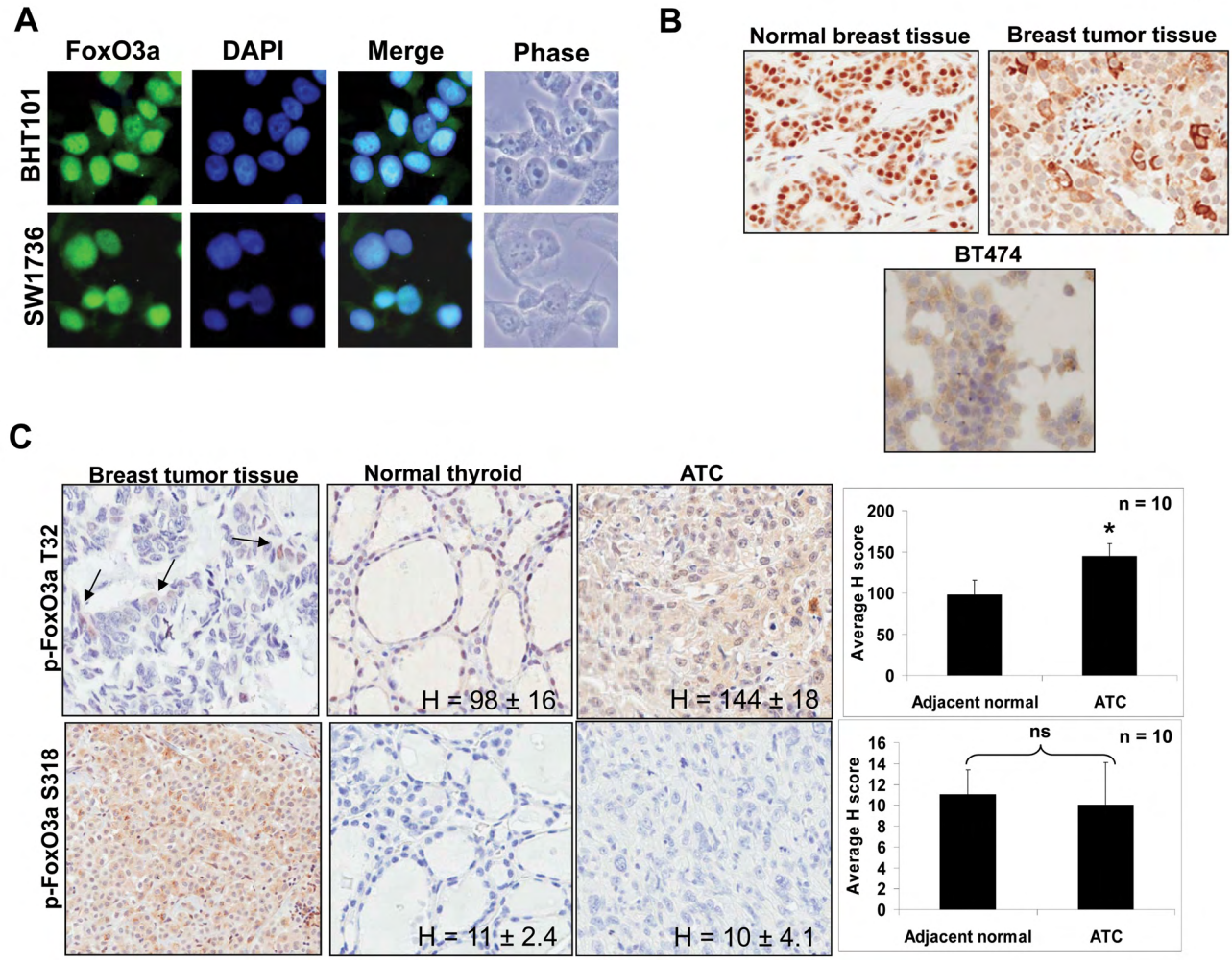
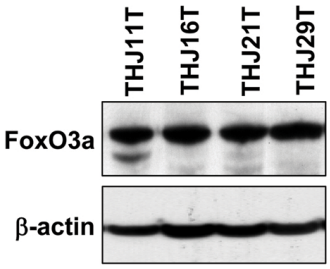


Fig. S1. FoxO3a localization. A. ICC shows nuclear localization of FoxO3a in BHT101 and SW1736 cells. DAPI staining is used as a nuclear control. **B**. IHC of normal and tumor breast tissue (n=10) and ICC of BT474 cells that were stained using IHC methods showed nuclear staining in normal breast tissue and cytoplasmic FoxO3a staining in a breast carcinoma tissue and cell line. **C**. IHC in adjacent normal thyroid and ATC patient tissues demonstrates little to no phosphorylation of FoxO3a at S318, while it is phosphorylated at T32 as shown by H scores (n=10). Breast tissue was used as a positive control.

A



B

Percent growth inhibition of control								
	THJ11T		THJ16T		THJ21T		THJ29T	
siRNA	Expt 1	Expt 2	Expt 1	Expt 2	Expt 1	Expt 2	Expt 1	Expt 2
FoxO3a #1 siRNA	80%	>99%	71%	66%	64%	61%	86%	88%
FoxO3a #6 siRNA	85%	90%	49%	47%	47%	28%	80%	84%
Non-silencing siRNA (Negative Control)	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
Lethal siRNA (Positive Control)	>99%	>99%	>99%	>99%	>99%	>99%	>99%	>99%

Fig. S2. High throughput silencing of FoxO3a reduces proliferation. A. Western blot shows that FoxO3a is expressed in the ATC cells. β-actin is the loading control. **B**. Data is presented as a table illustrating the growth inhibition of cell lines for 2 independent experiments in the presence of FoxO3a siRNA as compared to non-silencing siRNA (negative control. Lethal siRNA was used as a positive control.