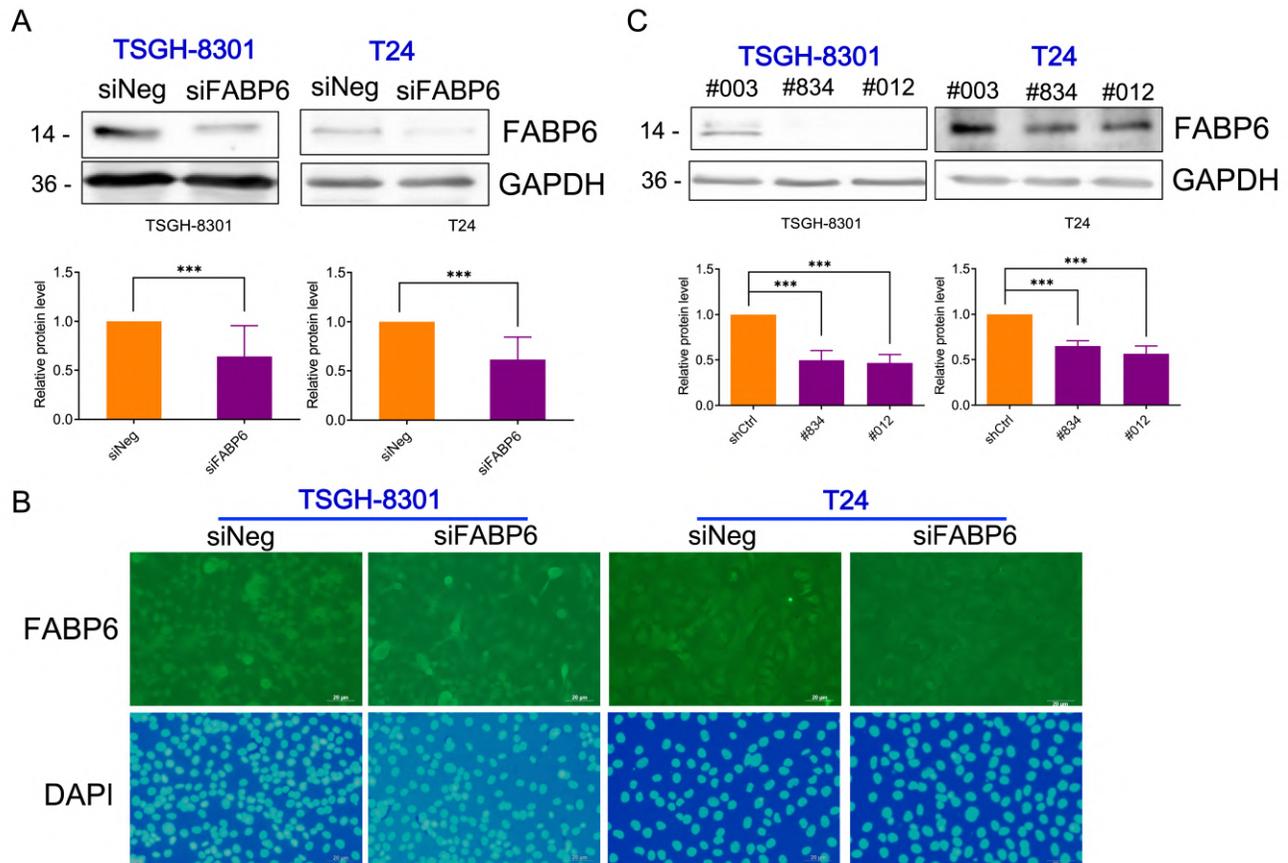
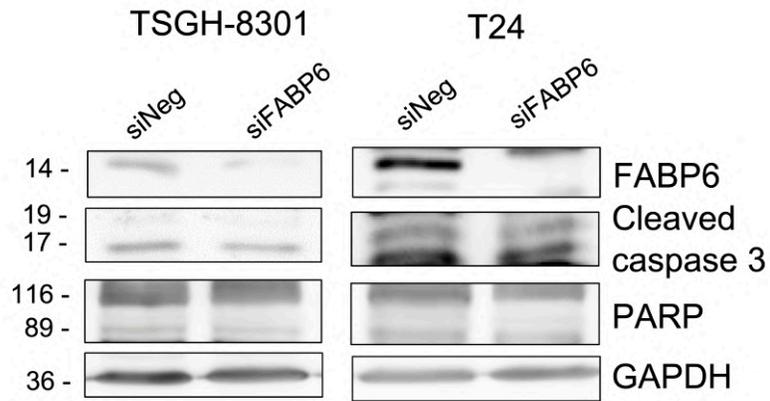




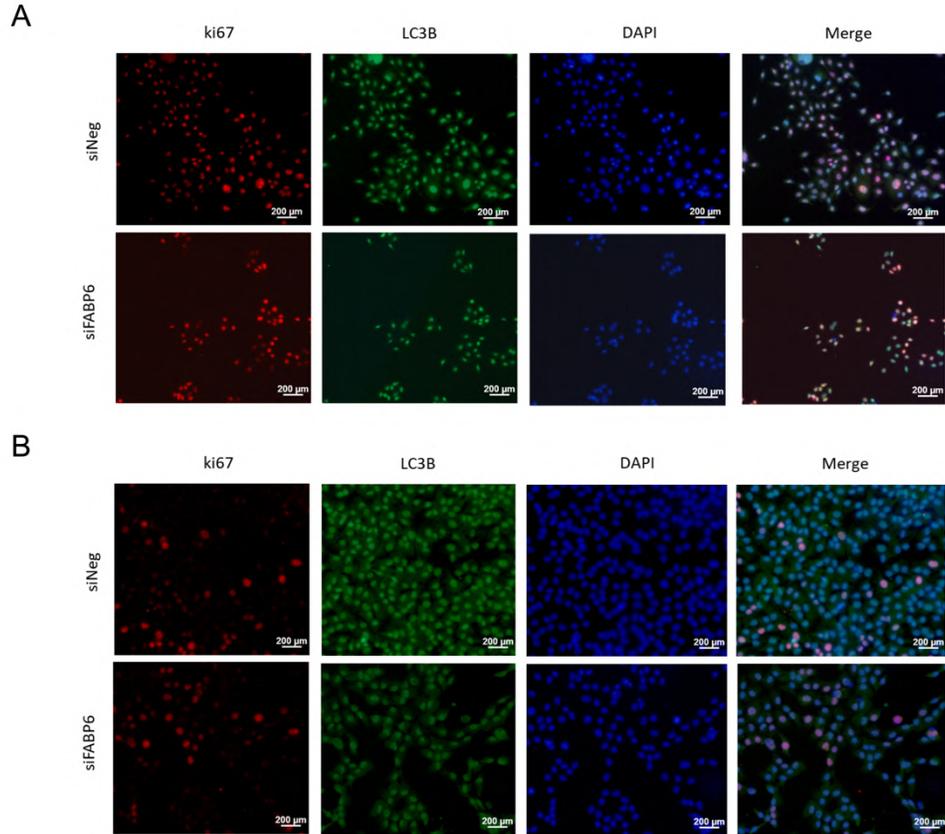
Supplementary Figures



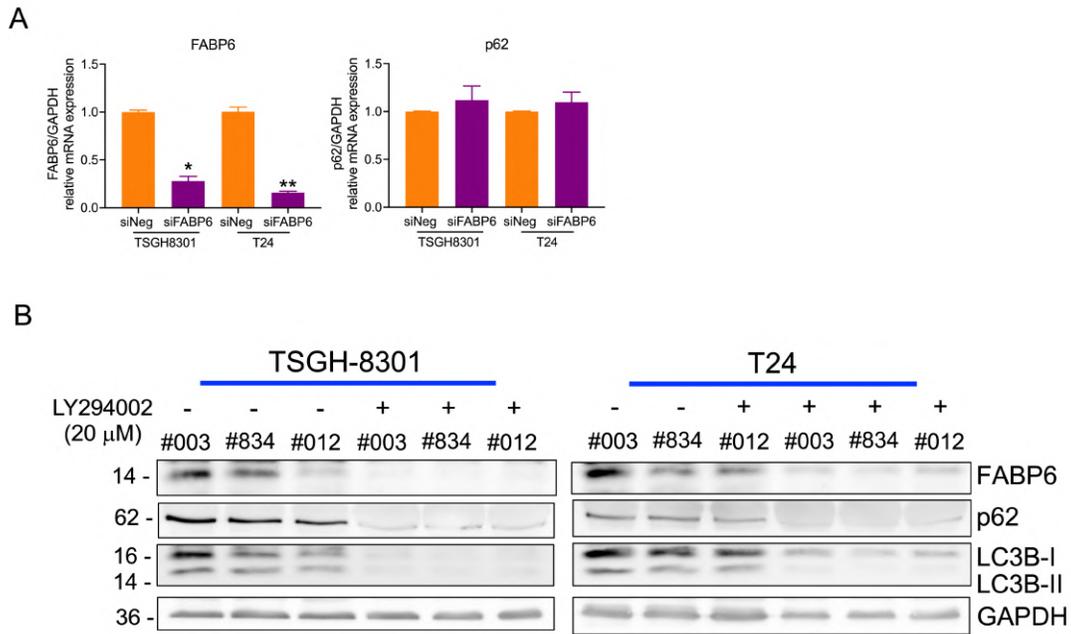
Supplementary Figure S1. Reduced FABP6 mRNA and protein expression in TSGH-8301 and T24 BC cells. (A) Quantitative analysis of FABP6 protein expression by western blotting in TSGH-8301 and T24 cells 72 h post-transfection. GAPDH was a loading control. (B) Immunostaining of FABP6 after 72 h post-transfection. (C) Knockdown effects of FABP6 were analyzed by western blotting in TSGH-8301 and T24 cells. Two cell lines were infected by scramble control lentivirus and another two shFABP6 sequences, #834 and #012, were selected. GAPDH was used as a loading control. ***, $p < 0.001$ compared to siNegative group or #003 scramble control group.



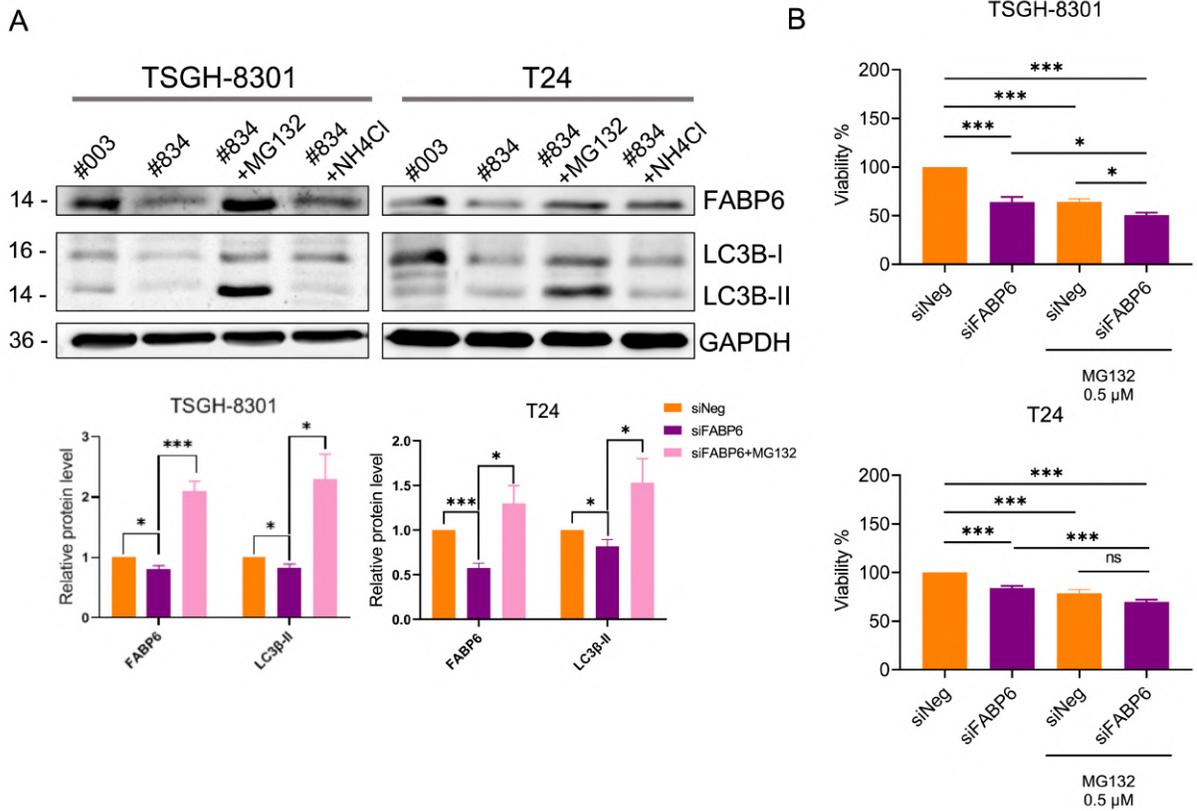
Supplementary Figure S2. Knockdown of FABP6 had no effect on apoptotic-related proteins. Western blotting analysis of caspase 3 and PARP expression 72 h after FABP6 knockdown in TSGH-8301 (left) and T24 (right) cells. GAPDH was used as a loading control.



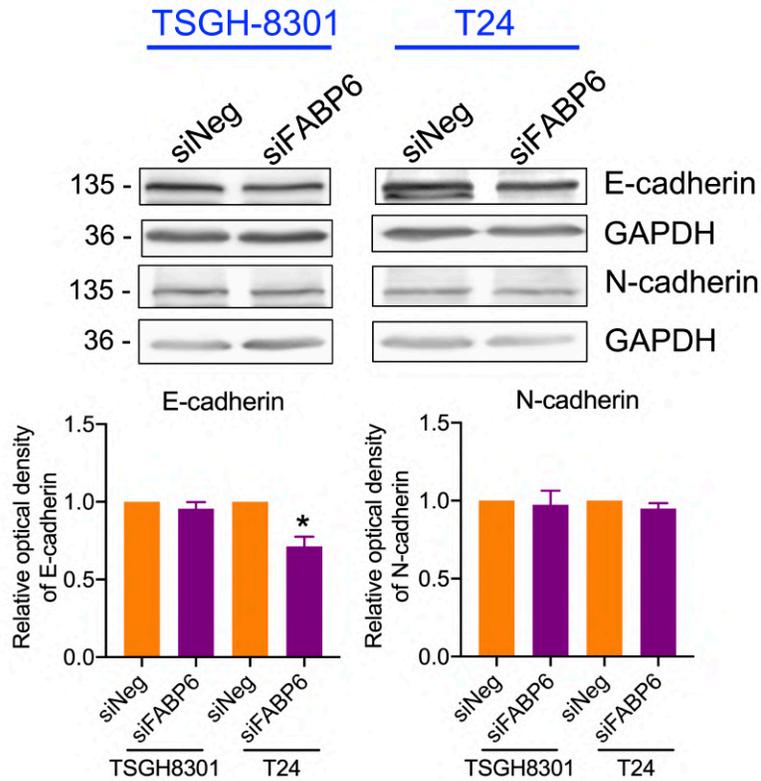
Supplementary Figure S3. Ki67 and LC3B immunostaining after FABP6 knockdown. Immunostaining of Ki67 (Red) and LC3B (Green) after 72 h post-transfection. Scale bar = 200 μm .



Supplementary Figure S4. The effect of LY294002 on p62 and LC3B after FABP6 inhibition. (A) Quantitative real-time PCR was performed after siFABP6 transfected for 72 h. The mRNA of FABP6 and p62 was evaluated in TSGH-8301 and T24 cells. (B) Quantitative analysis of p62 and LCB-II protein expression by western blotting in TSGH-8301 and T24 cells. GAPDH was a loading control. Two cell lines were infected by scramble control lentivirus (#003) and another two shFABP6 sequences, #834 and #012, were selected.



Supplementary Figure S5. Proteasome inhibitor MG132 treatment recovered autophagy markers after FABP6 knockdown. (A) In both cell lines showed reduced FABP6 and LC3B-II was recovered by MG132 treatment. (B) MTT assay analysis of proteasome inhibitor MG132 and lysosomal inhibitor NH4Cl treatment after knockdown of FABP6 for 72 h. These data are means \pm SEM from at least three independent experiments. P value, one-way ANOVA with two tailed t-test. *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$.



Supplementary Figure S6. The effect of E-cadherin and N-cadherin after FABP6 knockdown in BC cells. Quantitative analysis of E-cadherin and N-cadherin protein expression by western blotting in TSGH-8301 and T24 cells 72 h post-transfection. GAPDH was a loading control. *, $p < 0.05$ compared to siNegative group.

Supplementary Table S1. The sequences of siRNAs targeting FABP6

Name	sequence	Target
D-00885-01	5'-GAAGAAUUAUGAUGAGUUC-3'	FABP6
D-00885-02	5'-GCGGGAAGCUGGUGGUGAA-3'	FABP6
D-00885-03	5'-GGGCAGGACUUCACUUGGU-3'	FABP6
D-00885-04	5'-GCAAGGAAAGCAACAUACA-3'	FABP6
D-001206-13	5'-UAGCGACUAAACACAUCAA-3',	non-target
	5'-UAAGGCUAUGAAGAGAUAC-3',	non-target
	5'-AUGUAUUGGCCUGUAUUAG-3',	non-target
	5'-AUGAACGUGAAUGCUCAA-3'	non-target

Supplementary Table S2. The sequences of shRNAs targeting FABP6

Name

Sequences

Scramble #003 (ASN0000000003)

5'-CCGGCCTAAGGTTAAGTCGCCCTCGCTCGAGCGAGGGCGACTTAACCTTAGGTTTT-3'

shFABP6 #834 (TRCN0000419834)

5'-CCGGGAATTATGATGAGTTCATGAACTCGAGTTCATGAACCTCATCATAATTCTTTTT-3'

shFABP6 #012 (TRCN0000447012)

5'-CCGGTATGAGCGCGTGAGCAAGAGACTCGAGTCTCTTGCTCACGCGCTCATATTTTT-3'

Supplementary Table S3. The information of antibody

Name	Species	Brand	Cat NO.
GAPDH	Rb	CST	5174S
Atg12	Rb	CST	2010P
Caspase3	Rb	CST	9661S
Caspase8	Ms	CST	9746S
CyclinA1+A2	Rb	Abcam	Ab185619
E-cadherin	Rb	BD	610181
FABP6	Rb	Novus	NBP1-32482
LC3B	Rb	CST	3868S
N-cadherin	MS	BD	610920
PARP	Rb	CST	9532S
p21	Rb	CST	2947T
p-p53	Rb	CST	9284S
p53	Rb	CST	9282S
p-p65 (S536)	Rb	Abcam	ab86299
p65	Rb	CST	8242S
p-ERK	Rb	CST	4377S
ERK1/2	Rb	CST	9102S
p-p38	Ms	Millipore	MABS64
p38	Rb	Abcam	ab7952
p-mTOR	Rb	CST	5536S
mTOR	Rb	CST	2972S
p-AKT (T308)	Rb	CST	13038S
AKT	Rb	Epitomics	1085-1
RXR α	Rb	CST	3085
PPAR γ	Rb	CST	2435