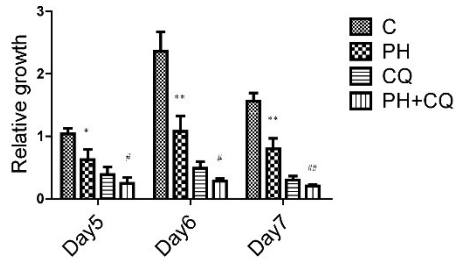


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2 **Figure S1.** Phloretin triggered oxidative stress in breast cancer cells cultured in glucose-  
 3 limiting media. (A-B) Immunoblot analyses of p62 expression in MCF7 (A) and MDA-MB-  
 4 231 cells (B) exposed to phloretin under full media and 1 mM glucose and 0 mM glucose media.  
 5 The results from quantitative analyses were shown in the lower panels. \*\* $p < 0.01$ , \*\*\* $p < 0.001$   
 6 1 mM Glu+PH compared with 1 mM Glu, \* $p < 0.05$ , \*\*\* $p < 0.001$  0 mM Glu+PH compared with  
 7 0 mM Glu. (C-D) Flow cytometry analyses of ROS levels in MCF7 (C) and MDA-MB-231 (D)

8 cells stained with DCFH-DA after phloretin treatment in 1 mM or 0 mM glucose media.  
9 Quantitative analyses of ROS levels were shown in lower panels, respectively. \*\*p<0.01,  
10 \*\*\*p<0.001 PH compared with vehicle. (E-F) The effect of co-treatment with NAC (10 mM)  
11 and phloretin on MCF7 (E) and MDA-MB-231 (F) cell proliferation was analyzed by CCK8  
12 assay. \*\*p<0.01, \*\*\*p<0.001 PH compared with control, #p<0.05, ##p<0.01 PH+NAC  
13 compared with PH.

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42 **Figure S2.** MDA-MB-231 cells were treated with phloretin and CQ for the time intervals as

43 indicated. CCK8 assay was performed. \* $p < 0.05$ , \*\* $p < 0.01$  PH versus control, # $p < 0.05$ ,

44 ## $p < 0.01$  PH+CQ versus PH.

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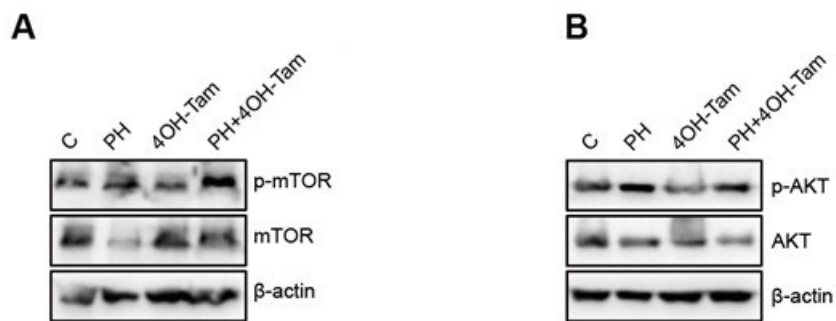
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79 **Figure S3.** PH inhibited autophagy by modulating mTOR/AKT signaling in MCF7 re cells. (A, B)

80 Immunoblot analyses of p-mTOR, mTOR, p-AKT, and AKT expression in MCF7 re cells treated

81 with 4OH-Tam in the presence or absence of PH.

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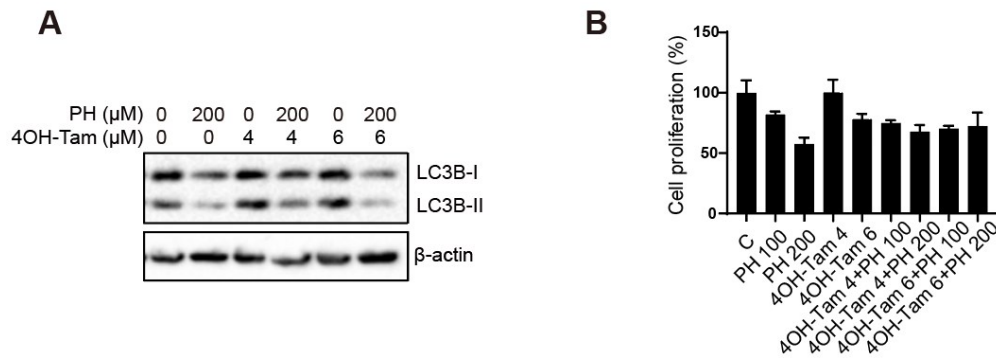
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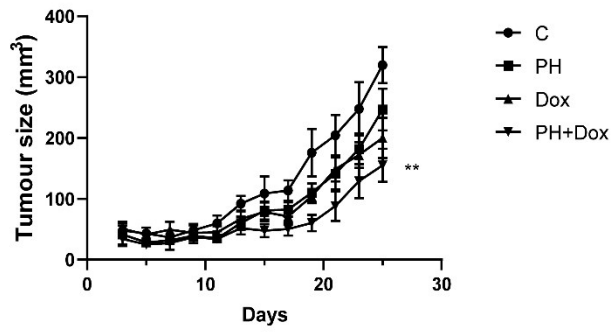


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112 **Figure S4.** PH failed to enhance sensitivity of MCF7 parental cells to 4OH-Tam in 1 mM  
113 glucose-limiting media. (A) Immunoblot analyses of LC3B-II expression in MCF7 parental  
114 cells treated with 4OH-Tam in the presence or absence of PH. (B) MCF7 parental cells were  
115 treated with PH (100, 200  $\mu\text{M}$ ), 4OH-Tam (4, 6  $\mu\text{M}$ ) or their combinations in 1 mM Glu media  
116 and cell proliferation was measured by the CCK-8 assay.

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146 **Figure S5.** PH displayed a synergetic inhibitory effect with Dox on the growth of subcutaneous  
147 xenografts (MDA-MB-231 cells) in Balb/c nude mice. **\*\* $p < 0.01$**  compared with control.

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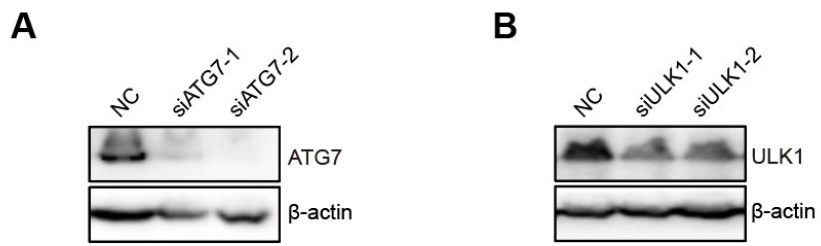
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187 **Figure S6.** Validation of ATG7 and ULK1 knockdown in MCF7 re cells transfected with siATG7,

188 siULK1 or their scrambled control.

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