Supplemental data

Supplemental Fig. 1. Identification of cDNA inserts in surviving MCF-7 clones.

A. Positioning of the vector-specific primers for cDNA insert recovery.

B. cDNA inserts recovered from clones B4 (lane 2), B6 (lane 3), D10 (lane 6) and E5 (lane 7). Amplification of EGFP (lane 5) served as a control. Clones in lanes 1 and 4 contained only EGFP insert. M: 1 kb marker (Invitrogen).

C. Alignment of 5' ends of recovered clones with corresponding GenBank entries (numbers in parenthesis). The position of the first nucleotide within the corresponding GenBank sequence is indicated. Sequence of the recovered B6 clone is underlined.

Supplemental Fig. 2. Knockdown of PRCP decreases basal but not nutrient starvationinduced LC3 expression and autophagosome formation.

A. Whole cell lysates of MCF7.beclin cells expressing control shRNA or PRCP shRNA (#1) were immunoblotted for PRCP and β -actin.

B. MCF7.beclin-control shRNA and MCF7.Beclin-PRCP shRNA cells were grown in the presence or absence of DOX (2 μ g/ml) for 3 days. Whole cell lysates were immunoblotted for beclin 1 and β -actin.

C. MCF7.beclin-control shRNA and MCF7.Beclin-PRCP shRNA cells were grown in the absence of DOX for 3 days. The cells were then grown in regular media or HBSS for 6 hours. Whole cell lysates were immunoblotted for LC3 and β -actin.

D-E. MCF7.beclin-control shRNA and MCF7.Beclin-PRCP shRNA cells were grown in the absence of DOX and infected with pMSCV-EGFP-LC3 for 2 days. The cells were then grown in regular media or HBSS for 6 hours before fixation. The cells were analyzed by a confocal microscope (D) for three different fields in each condition. The numbers of EGFP-LC3 positive autophagosomes and cell areas in each field were quantified and average numbers of autophagosomes/100 μ m² were presented as a graph with standard deviation indicated (E).

Supplemental Fig. 3. The TRCs are sensitive to E2 but not to 40HTAM.

A and B. MCF7 cells (a) and the TRCs (b) were plated in 96 well plates in eight replicates. After overnight culture (day 1), the media was substituted with phenol red free medium containing 10% FBS (FBS), 10% charcoal striped FBS (CSFBS), FBS and 1 μ M 4OHTAM, or CSFBS and 10 nM β -estrodiol for 3 days and 7 days. The cells were lysed and stained with Picogreen and the average fluorescence intensity of the cells was normalized to the base (day 1) cells and presented as curves with standard deviation shown (representative picture of two independent experiments).

C. The normalized relative fluorescence intensity of MCF7 cells and TRCs harvested at day 7 was presented as a graph with standard deviation indicated.

Supplemental Fig. 1



C. 5' end alignment of open reading frames present in recovered cDNAs

B6: (NM_005040) (1) CACCCGCACTGCAGTCTCCAGCCTGA<u>GCC**AT GGGCCGCCGAGCC**...</u>

Supplemental Fig. 2





Ε.







Cell line: MCF7.Beclin

D.



GFP-LC3 Cell line: MCF7.Beclin



Supplemental Fig. 3



Supplemental Table 1

Changes in cell response to chemotherapeutic drugs (IC50)

Cells	Doxorubicin	Docetaxel	Methotrexat	5-FU	Mafosfamide	Melphalan	Raloxifen	TAM	40HTAM
MCF7	1	1	1	1	1	1	1	1	1
B6-9	1.028	1	0.859	0.42	10.488	1.238	1.273	1.503	1.225