Fig S1

A

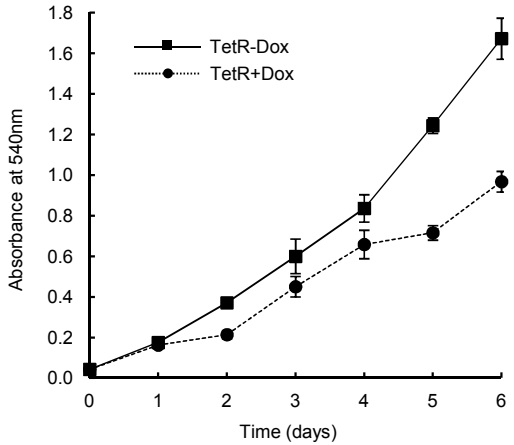

TetR-Dox
TetR+Dox
Absorbance at 540nm
Time (days)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
0
1
2
3
4
5
6

Fig S2

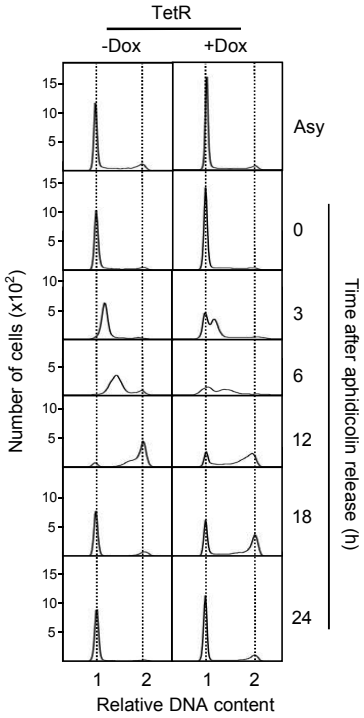

TetR
-Dox
+Dox
Asy
0
3
6
12
18
24
Number of cells (x10²)
Time after aphidicolin release (h)
Relative DNA content

Fig S3

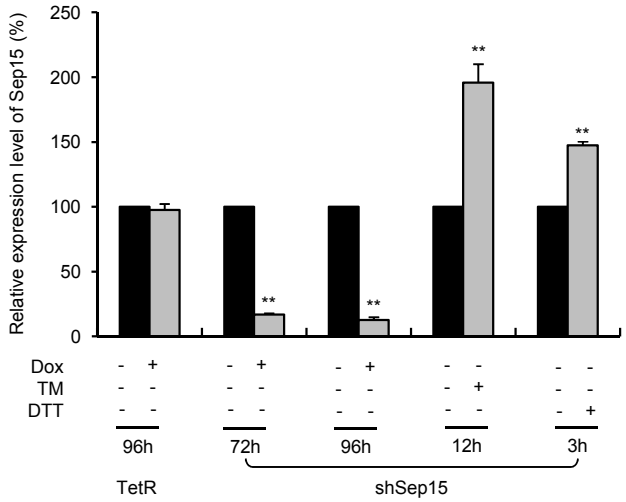

Relative expression level of Sep15 (%)
250
200
150
100
50
0
**
**
**
**
Dox
TM
DTT
- + - + - + - - - -
- - - - - - - + - -
- - - - - - - - - +
96h
72h
96h
12h
3h
TetR
shSep15

Fig S4

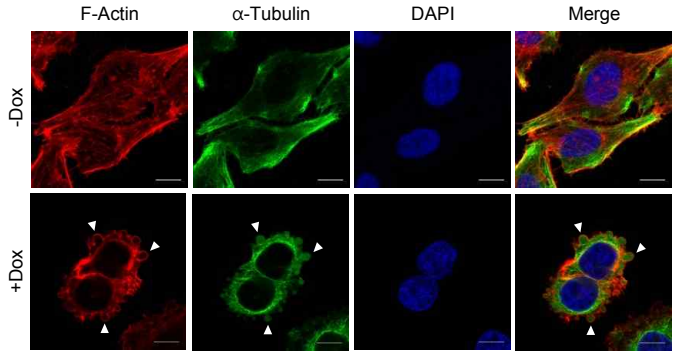
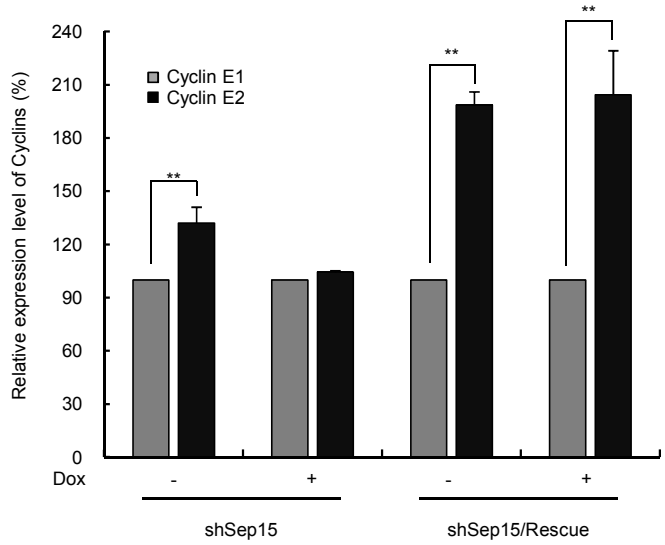


Fig S5


Relative expression level of Cyclins (%)
240
210
180
150
120
90
60
30
0
Cyclin E1
Cyclin E2
**
**
**
Dox
-
+
-
+
shSep15
shSep15/Rescue

Legends to Supplementary Material

Fig. S1. Cell proliferation assays in TetR cells.

Cell proliferation in TetR-Dox cells (squares connected with a solid line) and TetR+Dox (circles connected with a dotted line) was measured by a MTT assay.

Fig. S2. Cell cycle analysis of TetR cells

TetR cells were treated with aphidicolin (5 μM) for 24 h and cell cycle analysis was measured as described in Materials and Methods. The numbers, 1 and 2, on the bottom of each panel represent the relative DNA contents of the G0/G1 and G2/M phases, respectively. The number of cells and release time after arrest are marked on the left and right side of the Y-axis, respectively. Data shown are representative of at least three independent experiments.

Fig S3. Upregulation of Sep15 expression by induction of ER stress.

After induction of Sep15 RNA interference or ER stress for indicated time periods, total RNA was isolated from each cell line. The RNA was reverse-transcribed and cDNA was used in subsequent PCR reactions. The levels of Sep15 in TM- or DTT-treated cells relative to that in untreated cells were measured. ** indicates significance at $p < 0.001$.

Fig. S4. Sep15 deficiency leads to membrane blebbing.

Cells were stained for α-tubulin (green), F-actin (red) and nuclei (blue). Images obtained by confocal microscopy. Arrowheads indicate membrane blebs. Scale bars represent 20 μm.

Fig. S5. Relative expression level of cyclin E1 and cyclin E2

Three days after Dox treatment to shSep15 or shSep15/Rescue cells, expression levels of cyclin E1 and E2 were measured by realtime RT-PCR as described in Materials and Methods. The relative expression levels of cyclin E2 against cyclin E1 was determined in each cell. ** indicates significance at $p < 0.001$.