

Effects of Combined Pentadecanoic acid and Tamoxifen Treatment on Tamoxifen Resistance in MCF-7/SC Breast Cancer Cells

Supplementary Material

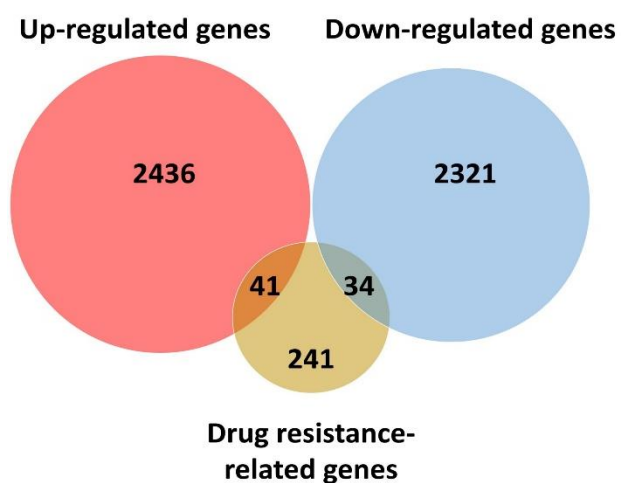


Figure S1. Venn diagram showing the number of overlapping genes between the upregulated and downregulated genes for drug-resistant markers.

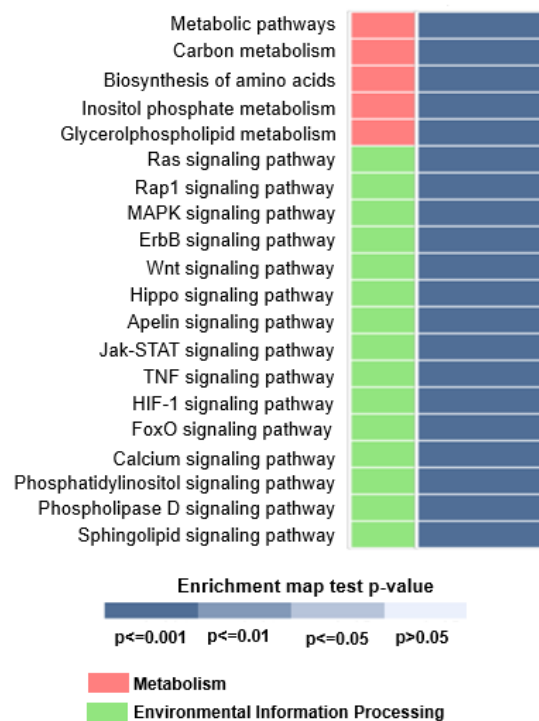


Figure S2. The top 20 pathways enriched in MCF-7/SC cells compared with those in MCF-7 cells.

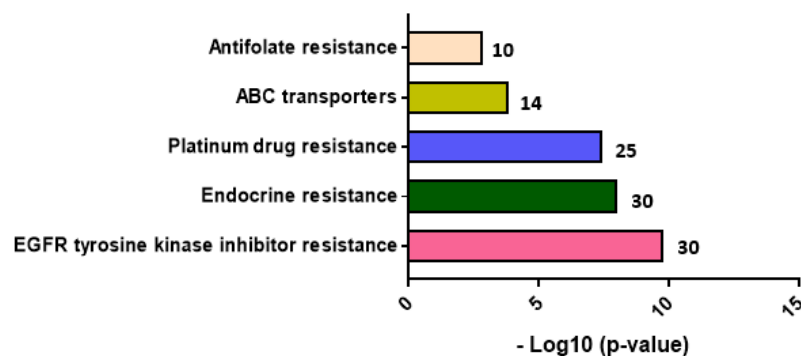


Figure S3. KEGG pathway analysis indicating the number of DEGs belonging to each of the enrichment-resistant pathways in MCF-7/SC compared with those in MCF-7 cells.

Endocrine resistance (hsa 01522)

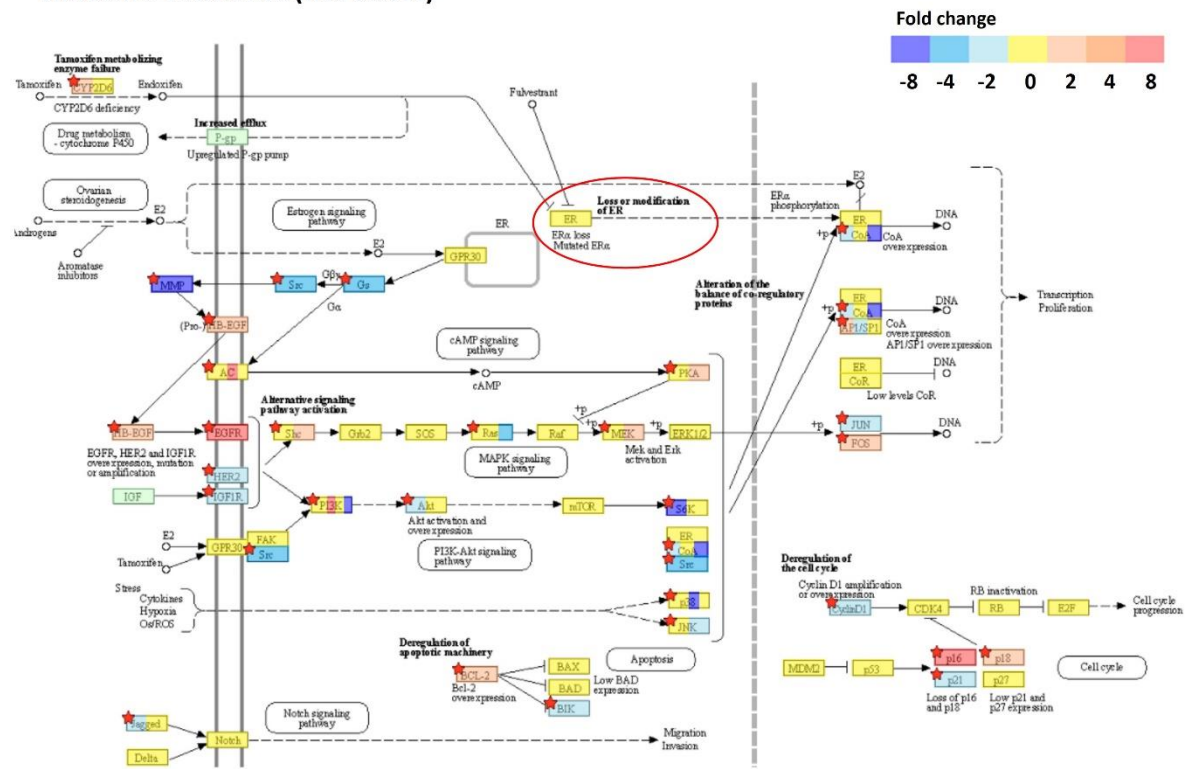


Figure S4. KEGG pathway map: Endocrine signaling pathway

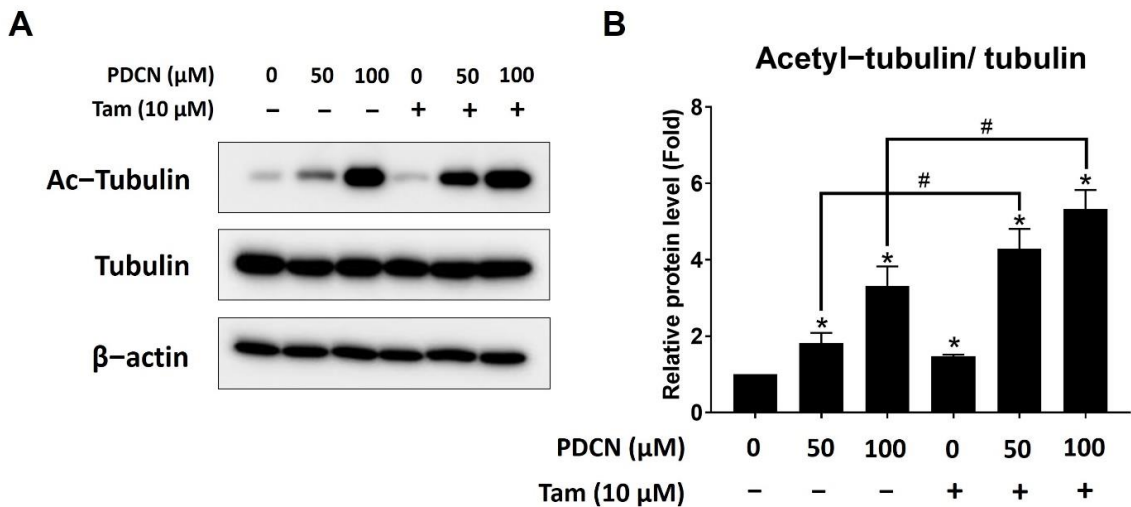


Figure S5. Pentadecanoic acid combined with tamoxifen enhanced the acetylation of intracellular α -tubulin.

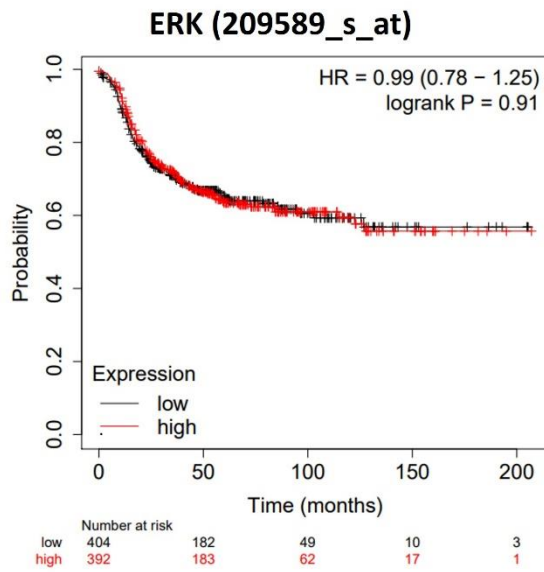
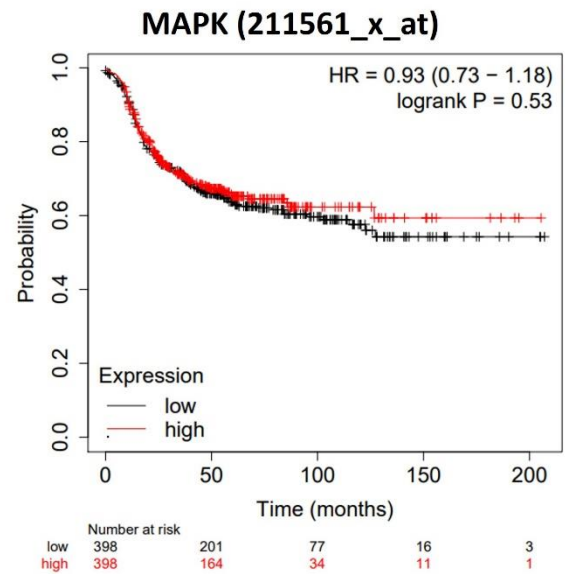
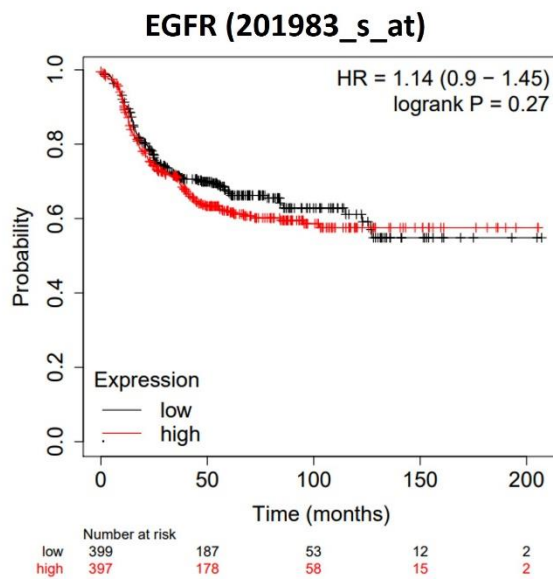
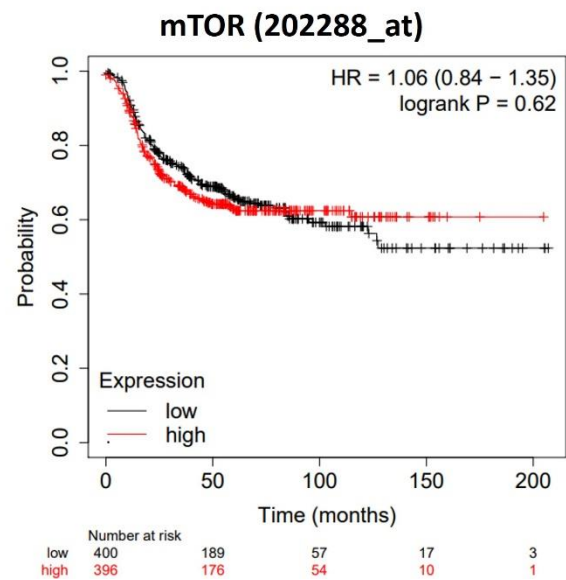
A**B****C****D**

Figure S6. Analysis of ERK, MAPK, EGFR, mTOR expression in ER-negative breast cancer patients.

Table S1. The antibody list for Western blot

<i>Antibody</i>	<i>Dilution ratio</i>	<i>Catalog number and Company</i>
<i>B-actin</i>	1:10000	#3700 (Cell Signaling Technology)
<i>E-cadherin</i>	1:1000	610181 (BD Biosciences)
<i>ZEB1</i>	1:500	#3396 (Cell Signaling Technology)
<i>Bcl2</i>	1:1000	#4223 (Cell Signaling Technology)
<i>Rb</i>	1:1000	#9309 (Cell Signaling Technology)
<i>p-Rb</i>	1:1000	#9308 (Cell Signaling Technology)
<i>p21</i>	1:1000	#2947 (Cell Signaling Technology)
<i>cdc2</i>	1:1000	#9116 (Cell Signaling Technology)
<i>ER-α</i>	1:500	#8644 (Cell Signaling Technology)
<i>Caspase 9</i>	1:1000	#9502 (Cell Signaling Technology)
<i>Cleaved- Caspase 9</i>	1:1000	#9505 (Cell Signaling Technology)
<i>Caspase 7</i>	1:1000	#9492 (Cell Signaling Technology)
<i>Cleaved- Caspase 7</i>	1:1000	#9491 (Cell Signaling Technology)
<i>Caspase 3</i>	1:1000	#9662 (Cell Signaling Technology)
<i>Cleaved- Caspase 3</i>	1:500	#9661 (Cell Signaling Technology)
<i>PARP</i>	1:1000	#9542 (Cell Signaling Technology)
<i>Snail</i>	1:1000	#3879 (Cell Signaling Technology)
<i>Slug</i>	1:500	#9585 (Cell Signaling Technology)
<i>MMP9</i>	1:1000	#3852 (Cell Signaling Technology)
<i>Vimentin</i>	1:1000	#5741 (Cell Signaling Technology)
<i>STAT3</i>	1:1000	#9139 (Cell Signaling Technology)
<i>p-STAT3</i>	1:500	#9145 (Cell Signaling Technology)
<i>Erk1/2</i>	1:1000	#9102 (Cell Signaling Technology)
<i>p- Erk1/2</i>	1:1000	#9101 (Cell Signaling Technology)
<i>p38</i>	1:500	#9212 (Cell Signaling Technology)
<i>p-p38</i>	1:500	#9211 (Cell Signaling Technology)
<i>EGFR</i>	1:1000	#2232 (Cell Signaling Technology)
<i>p-EGFR</i>	1:500	#2234 (Cell Signaling Technology)
<i>mTOR</i>	1:1000	#2983 (Cell Signaling Technology)

<i>p-mTOR</i>	1:500	#2971 (Cell Signaling Technology)
<i>Tubulin</i>	1:1000	#2144 (Cell Signaling Technology)
<i>Ac-Tubulin</i>	1:1000	#5335 (Cell Signaling Technology)

Table S2. The primer sequences for qRT-PCR

<i>Genes</i>	<i>Primer sequences</i>	
<i>ESR1</i>	Forward (5'→3')	AGCTCCTCCTCATCCTCTCC
	Reverse (5'→3')	TCTCCAGCAGCAGGTCATAG
<i>CA12</i>	Forward (5'→3')	TGGCATTCTTGGCATCTGTA
	Reverse (5'→3')	TTGGTGGCTGGCTTGTAAT
<i>NR1P1</i>	Forward (5'→3')	TCGCACTCACCACAGAAAAC
	Reverse (5'→3')	AGCCAAGCTCTTCTCCATGT
<i>RARA</i>	Forward (5'→3')	CGCTGCTGGAGGCGCTAAAG
	Reverse (5'→3')	GCGCTGATGCTTCGCAGGTC
<i>XBPI</i>	Forward (5'→3')	GCGCCTCACGCACCTG
	Reverse (5'→3')	GCTGCTACTCTGTTTTTCAGTTTCC
<i>TFF1</i>	Forward (5'→3')	GTGTCACGCCCTCCCAGT
	Reverse (5'→3')	GGACCCACGAACGGTG
<i>GREB1</i>	Forward (5'→3')	CAAAGAATAACCTGTTGGCCCTGC
	Reverse (5'→3')	GACATGCCTGCGCTCTCATACTTA
<i>FOS</i>	Forward (5'→3')	CGTCTTCCTTCGTCTTCACC
	Reverse (5'→3')	GTCAGAGGAAGGCTCATTGC
<i>BCL2</i>	Forward (5'→3')	TCCCTCGCTGCACAAATACTC
	Reverse (5'→3')	ACGACCCGATGGCCATAGA