

Supplementary material:

Table 1: Differential expression of breast cancer genes in the two conditions

Gene symbol	Expression in ER starved files	Expression in Tamoxifen treated files	Gene symbol	Expression in ER starved files	Expression in Tamoxifen treated files
AKT2	Under-expressed	Under-expressed	IGF1R	Over-expressed	Mixed
APC	Under-expressed	Mixed	IGF2r	Under-expressed	Over-expressed
APS	Under-expressed	Not Present	KRAS2	Mixed	Under-expressed
ATM	Under-expressed	Mixed	MYCL1	Under-expressed	Mixed
BCL2	Over-expressed	Under-expressed	KIT	Over-expressed	Over-expressed
BRCA1	Over-expressed	Under-expressed	MCC	Mixed	Over-expressed
BRCA2	Over-expressed	Under-expressed	MDM2	Over-expressed	Mixed
CCND1	Over-expressed	Under-expressed	MET	Under-expressed	Mixed
CDKN2A	Under-expressed	Mixed	MYC	Under-expressed	Over-expressed
COL18A1	Over-expressed	Over-expressed	NF2	Under-expressed	Over-expressed
CTSD	Over-expressed	Under-expressed	NME1	Over-expressed	Under-expressed
DCC	Under-expressed	Not Present	NRAS	Over-expressed	Mixed
EGF	Under-expressed	Over-expressed	PGR	Over-expressed	Not Present
EGFR	Under-expressed	Over-expressed	PHB	Mixed	Under-expressed
EMS1	Over-expressed	Not Present	PLG	Over-expressed	Under-expressed
ERBB2	Under-expressed	Over-expressed	PLAT	Mixed	Over-expressed
ERBB3	Under-expressed	Over-expressed	PRL	Mixed	Under-expressed
ESR1	Mixed	Under-expressed	PTH	Under-expressed	Under-expressed
MSH2	Under-expressed	Over-expressed	PTPN1	Over-expressed	Under-expressed
MLH1	Mixed	Under-expressed	PTPRF	Mixed	Over-expressed
FGFR1	Under-expressed	Mixed	RAC3	Under-expressed	Mixed
FGFR2	Under-expressed	Under-expressed	SNCG	Under-expressed	Over-expressed
FGFR4	Over-expressed	Under-expressed	SRC	Mixed	Not Present
GRB7	Under-expressed	Under-expressed	TFAP2C	Over-expressed	Under-expressed
HRAS	Mixed	Over-expressed	TGFA	Over-expressed	Over-expressed
THRA	Under-expressed	Over-expressed	TSG101	Under-expressed	Over-expressed
TP53	Over-expressed	Under-expressed	PLAU	Mixed	Under-expressed
VIM	Under-expressed	Over-expressed			

Table 2: Significant genes with their functions and corresponding p-values

S. No	Gene Ontology	Genes Responsible	p-value
1	Phosphotransferase activity	FGFR2 FGFR1 FGFR4 ERBB3 ERBB2 TRRAP KIT SRC IGF1R PTK2 TGFA PRKACA INSR CHUK AKT2 EGFR LYN TRIM28 MET RAF1 IRS1 ATM CCND1 FYN GSK3B MAPK14 IGF2R MAPK3 BUB1B JAK2 MAPK8	2.4E-20
2	Receptor signaling protein activity	EGFR LYN ERBB3 ERBB2 RAF1 SMAD3 KIT IRS1 STAT3 BAG1 MAPK14 APS MAPK3 JAK2 SHC1 MAPK8 EGF INSR	2.5E-19
3	Enzyme binding	CAV1 TSG101 ERBB2 VIM CTNNB1 IGF1R CDKN2A BCL2 PRKACA INSR RASA1 PIK3R1 APC EGFR MSH2 TP53 SMAD3 BRCA2 RB1 IRS1 CHUK STAT3 BRCA1 CCND1 GSK3B IGF2R MDM2 JAK2 PCAF	3.34E-18
4	Signal transducer activity	FGFR2 DCC FGFR1 FGFR4 THRA GRB2 ERBB3 ERBB2 KIT SRC CTNNB1 PGR IGF1R PTK2 BAG1 RAC3 APS TGFA SHC1 EGF INSR EGFR PTPRF LYN MET CBL CREBBP ESR1 RAF1 SMAD3 IRS1 STAT3 MAPK14 IGF2R MAPK3 JAK2 MAPK8 MCC GRB7	1.9E-12
5	Molecular transducer	FGFR2 DCC FGFR1 FGFR4 THRA GRB2 ERBB3 ERBB2 KIT SRC CTNNB1 PGR IGF1R PTK2 BAG1 RAC3 APS TGFA SHC1 EGF INSR EGFR PTPRF LYN MET CBL CREBBP ESR1 RAF1 SMAD3 IRS1 STAT3 MAPK14 IGF2R MAPK3 JAK2 MAPK8 MCC GRB7	1.6E-12