

Table SI. Clinicopathological characteristics of the 30 patients with triple-negative breast cancer.

Patient no.	Age	Histological	Size of tumor (mm)
1	58	II	20x16x17
2	72	II	20x16
3	64	III	16x7x12
4	73	III	90x75x45
5	51	III	30x28x20
6	45	III	46x14x35
7	67	III	54x20
8	53	II	15x11x14.8
9	32	III	16x17x13
10	50	II	20x18x20
11	69	II	30x28x17
12	51	III	25x15x11
13	32	III	49x24x31
14	42	II	30.5x38.5x14.5
15	68	III	22x20x24
16	52	III	29x21x25
17	49	II	14x13x12
18	39	III	21x16x15
19	45	III	27x13x19
20	56	III	30x23x16
21	55	II	38x34x21
22	25	III	26x14x24
23	57	III	40x25x18
24	43	II	30x20x10
25	59	II	10x8x8
26	55	III	15x12x15
27	50	II	19x15x15
28	56	III	37x36x32
29	72	III	39x27x26
30	55	III	31x10x14

Table SII. Differentially expressed genes between the LV5 and TRPC5OS overexpression groups in MDA-MB-231 cells.

A, Upregulated genes										
Annotation					DE statistic		FPKM			
Track_id	Gene	Locus	Strand	Gene_type	log2FC	2 ^(log2FC)	231- 5OS_FPKM	231_FPKM	231	231-5OS
ENSG00000204025.7_3	TRPC5OS	chrX:111119279-111147218	+	protein_coding	7.492722	180.10840	7.575240	0.082518	0.058865	189.7104
ENSG00000170498.8_2	KISS1	chr1:204159469-204165614	-	protein_coding	5.414190	42.64160	6.159620	0.745430	0.676474	70.48753
ENSG00000259040.5_3	BLOC1S5- TXNDC5	chr6:7881755-8064597	-	protein_coding	4.933468	30.55779	7.149058	2.215590	3.644715	140.9322
ENSG00000106991.13_2	ENG	chr9:130577291-130617035	-	protein_coding	4.729008	26.51999	4.802331	0.073322	0.052137	26.90266
ENSG00000126945.8_3	HNRNPH2	chrX:100663283-100669121	+	protein_coding	4.275775	19.37030	5.034818	0.759043	0.692368	31.78168
ENSG00000144583.4_2	MARCH4	chr2:217122588-217236750	-	protein_coding	3.967418	15.64271	4.434668	0.467249	0.382471	20.62559
ENSG00000189068.9_3	VSTM1	chr19:54544079-54567207	-	protein_coding	3.616742	12.26727	3.616742	0.000000	0.000000	11.26727
ENSG00000120937.8_2	NPPB	chr1:11917521-11918988	-	protein_coding	3.610962	12.21822	3.610962	0.000000	0.000000	11.21822
ENSG00000134247.9_2	PTGFRN	chr1:117452679-117532980	+	protein_coding	3.565838	11.84198	3.617423	0.051585	0.036403	11.27306
ENSG00000112414.14_3	ADGRG6	chr6:142622991-142767403	+	protein_coding	3.407929	10.61424	4.419918	1.011989	1.016690	20.40563
B, Downregulated genes										
Annotation					DE statistic		FPKM			
Track_id	Gene	Locus	Strand	Gene_type	log2FC	2 ^(log2FC)	231- 5OS_FPKM	231_FPKM	34.39750	0.000000
ENSG00000100234.11_2	TIMP3	chr22:33197687-33259030	+	protein_coding	-5.383623	0.02395	1.917781	7.301404	156.7399	2.778414
ENSG00000124664.10_2	SPDEF	chr6:34505579-34524110	-	protein_coding	-5.489776	0.02225	0.045364	5.535140	45.37066	0.031944
ENSG00000171345.13_2	KRT19	chr17:39679869-39684560	-	protein_coding	-5.506142	0.02200	1.733587	7.239729	150.1387	2.325537
ENSG00000163993.6_2	S100P	chr4:6694796-6698897	+	protein_coding	-5.631391	0.02017	0.000000	5.631391	48.56986	0.000000
ENSG00000151651.15_3	ADAM8	chr10:135075907-135090372	-	protein_coding	-5.994907	0.01568	0.585772	6.580679	94.71539	0.500842
ENSG00000215182.6	MUC5AC	chr11:1151580-1222364	+	protein_coding	-6.090223	0.01468	0.000000	6.090223	67.13021	0.000000
ENSG00000170369.3_2	CST2	chr20:23804406-23807368	-	protein_coding	-6.389133	0.01193	0.000000	6.389133	82.81477	0.000000
ENSG00000101441.4_2	CST4	chr20:23666277-23669677	-	protein_coding	-9.044752	0.00189	0.000000	9.044752	527.1309	0.000000
ENSG00000170373.8_2	CST1	chr20:23728190-23731905	-	protein_coding	-9.284197	0.00160	0.614831	9.899027	953.7819	0.531378

TRPC5OS, Transient receptor potential channel 5 opposite strand; LV5, lentiviral negative control; DE, differential genes; FPKM, Fragments Per Kilobase of gene/transcript model per Million mapped fragments; +, positive strand; -, negative strand.

Table SIII. All 17 differentially expressed proteins identified following transient receptor potential channel 5 opposite strand overexpression.

Gene Symbol	Uniprot ID
ANXA1	P04083
PRDX1	A0A0A0MRQ5
ENO1	P06733-2
LDHB	P07195
YWHAQ	P27348
FLNC	Q14315-2
VDAC1	P21796
EEF1G	P26641
RPL7A	P62424
RPS3	P23396
PCBP2	Q15366-6
CCT6A	P40227-2
CS	A0A0C4DGI3
HNRNPD	D6RF44
AKR7A2	H3BLU7
CALR	K7EJB9
LCN1	P31025

ANXA1, annexin A1; PRDX1, peroxiredoxin 1; ENO1, enolase 1; LDHB, lactate dehydrogenase B; YWHAQ, tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein 0; FLNC, filamin C; VDAC1, voltage-dependent anion channel 1; EEF1G, eukaryotic translation elongation factor 1 γ ; RP, ribosomal protein; PCBP2, poly(rC) binding protein 2; CCT6A, chaperonin containing TCP1 subunit 6A; CS, citrate synthase; HNRNPD, heterogeneous nuclear ribonucleoprotein D; AKR7A2, aldo-keto reductase family 7 member A2; CALR, calreticulin; LCN1, lipocalin 1.