

Supplementary tables for:

Breast cancer cells produce tenascin-C as a metastatic niche component to colonize the lungs

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Supplementary Table 1: TNC binding receptors expressed in CN34 and MDA231 breast cancer cells.

TNC binding receptors		Cell lines	
		CN34	MDA231
ANXA2	Annexin II	+	+
CD3	T-cell surface glycoprotein	-	-
CNTN1	Contactin 1	-	-
EGFR	EGF receptor	+	+
GPC1	Glypican 1	+/-	+
ITGA2	Integrin α 2	+	+
ITGA7	Integrin α 7	-	-
ITGA8	Integrin α 8	-	-
ITGA9	Integrin α 9	-	-
ITGAV	Integrin α V	+	+
PITGB1	Integrin β 1	+	+
ITGB3	Integrin β 3	+	+
ITGB6	Integrin β 6	-	-
PTPRZ1	Phosphacan	+	+
SCN11A	Sodium channel, XI α	+	+
SDC4	Syndecan 4	+	+
TLR4	Toll-like receptor 4	+	+

Microarray expression data (Affymetrix chip HG-U133A) was used to determine the presence or absence of TNC binding receptors in the cell lines CN34 and MDA231.

Supplementary Table 2: STAT5 Signature: Upregulated genes.

	Probe	Gene Symbol		Probe	Gene Symbol
1	200069_at	SART3	46	204035_at	SCG2
2	200712_s_at	MAPRE1	47	204401_at	KCNN4
3	200713_s_at	MAPRE1	48	204444_at	KIF11
4	200783_s_at	STMN1	49	204456_s_at	GAS1
5	201042_at	TGM2	50	204457_s_at	GAS1
6	201275_at	FDPS	51	204531_s_at	BRCA1
7	201286_at	SDC1	52	204603_at	EXO1
8	201287_s_at	SDC1	53	204614_at	SERPINB2
9	201615_x_at	CALD1	54	204775_at	CHAF1B
10	201616_s_at	CALD1	55	204822_at	TTK
11	201617_x_at	CALD1	56	204825_at	MELK
12	201631_s_at	IER3	57	204826_at	CCNF
13	201666_at	TIMP1	58	204827_s_at	CCNF
14	201746_at	TP53	59	204973_at	GJB1
15	201896_s_at	PSRC1	60	205023_at	RAD51
16	202022_at	ALDOC	61	205024_s_at	RAD51
17	202071_at	SDC4	62	205044_at	GABRP
18	202094_at	BIRC5	63	205167_s_at	CDC25C
19	202095_s_at	BIRC5	64	205278_at	GAD1
20	202183_s_at	KIF22	65	205309_at	SMPDL3B
21	202240_at	PLK1	66	205339_at	STIL
22	202245_at	LSS	67	205470_s_at	KLK11
23	202310_s_at	COL1A1	68	205479_s_at	PLAU
24	202311_s_at	COL1A1	69	205525_at	CALD1
25	202312_s_at	COL1A1	70	205566_at	ABHD2
26	202580_x_at	FOXM1	71	205646_s_at	PAX6
27	202589_at	TYMS	72	205747_at	CBLN1
28	202627_s_at	SERPINE1	73	205959_at	MMP13
29	202628_s_at	SERPINE1	74	206103_at	RAC3
30	202705_at	CCNB2	75	206154_at	RLBP1
31	202712_s_at	NA	76	206177_s_at	ARG1
32	202718_at	IGFBP2	77	206315_at	CRLF1
33	202786_at	STK39	78	206483_at	LRRC6
34	202831_at	GPX2	79	206669_at	GAD1
35	202935_s_at	SOX9	80	206670_s_at	GAD1
36	202936_s_at	SOX9	81	206738_at	APOC4
37	202954_at	UBE2C	82	206852_at	EPHA7
38	203145_at	SPAG5	83	206888_s_at	ARHGDI3
39	203213_at	CDC2	84	206889_at	NA
40	203214_x_at	CDC2	85	206947_at	B3GALT5
41	203418_at	CCNA2	86	207165_at	HMMR
42	203764_at	DLGAP5	87	207331_at	CENPF
43	203805_s_at	FANCA	88	207828_s_at	CENPF
44	203806_s_at	FANCA	89	208175_s_at	DMP1
45	203892_at	WFDC2	90	208190_s_at	LSR

91	208358_s_at	UGT8	139	214880_x_at	CALD1
92	208501_at	GFI1B	140	215198_s_at	CALD1
93	208711_s_at	CCND1	141	215199_at	CALD1
94	208712_at	CCND1	142	215530_at	FANCA
95	208949_s_at	LGALS3	143	215591_at	SATB2
96	209127_s_at	SART3	144	215808_at	KLK10
97	209128_s_at	SART3	145	216009_at	SLC39A9
98	209172_s_at	CENPF	146	216011_at	SLC39A9
99	209280_at	MRC2	147	216180_s_at	SYNJ2
100	209408_at	KIF2C	148	216181_at	SYNJ2
101	209514_s_at	RAB27A	149	216182_at	SYNJ2
102	209515_s_at	RAB27A	150	216183_at	TGM2
103	209516_at	SMYD5	151	216275_at	BUB1
104	209642_at	BUB1	152	216277_at	BUB1
105	209709_s_at	HMMR	153	216708_x_at	IGL@
106	209792_s_at	KLK10	154	216914_at	CDC25C
107	209891_at	SPC25	155	216969_s_at	KIF22
108	209906_at	C3AR1	156	216984_x_at	NA
109	210052_s_at	TPX2	157	217010_s_at	CDC25C
110	210138_at	RGS20	158	217067_s_at	DMP1
111	210151_s_at	DYRK3	159	217344_at	FDPS
112	210221_at	CHRNA3	160	217430_x_at	COL1A1
113	210334_x_at	BIRC5	161	217435_x_at	NA
114	210559_s_at	CDC2	162	217640_x_at	SKA1
115	210612_s_at	SYNJ2	163	217684_at	TYMS
116	210951_x_at	RAB27A	164	217690_at	NA
117	211003_x_at	TGM2	165	217714_x_at	STMN1
118	211018_at	LSS	166	217744_s_at	PERP
119	211019_s_at	LSS	167	217789_at	SNX6
120	211062_s_at	CPZ	168	217859_s_at	SLC39A9
121	211300_s_at	TP53	169	217875_s_at	PMEPA1
122	211519_s_at	KIF2C	170	218009_s_at	PRC1
123	211573_x_at	TGM2	171	218039_at	NUSAP1
124	211587_x_at	CHRNA3	172	218162_at	OLFML3
125	211668_s_at	PLAU	173	218182_s_at	CLDN1
126	211772_x_at	CHRNA3	174	218252_at	CKAP2
127	211851_x_at	BRCA1	175	218259_at	MKL2
128	212077_at	CALD1	176	218324_s_at	SPATS2
129	212828_at	SYNJ2	177	218498_s_at	ERO1L
130	212949_at	NCAPH	178	218585_s_at	DTL
131	213226_at	CCNA2	179	218677_at	S100A14
132	213240_s_at	KRT4	180	218755_at	KIF20A
133	213260_at	FOXC1	181	218851_s_at	WDR33
134	213435_at	SATB2	182	219143_s_at	RPP25
135	213645_at	ENOSF1	183	219232_s_at	EGLN3
136	214019_at	NA	184	219257_s_at	SPHK1
137	214148_at	NA	185	219415_at	TTYH1
138	214399_s_at	KRT4	186	219493_at	SHCBP1

187	219725_at	TREM2	198	220585_at	HKDC1
188	219755_at	CBX8	199	220689_at	NODAL
189	219756_s_at	POF1B	200	220997_s_at	DIAPH3
190	219787_s_at	ECT2	201	221436_s_at	CDCA3
191	219795_at	SLC6A14	202	221560_at	MARK4
192	219978_s_at	NUSAP1	203	221815_at	ABHD2
193	220224_at	HAO1	204	222294_s_at	RAB27A
194	220295_x_at	DEPDC1	205	37408_at	MRC2
195	220370_s_at	USP36	206	55065_at	MARK4
196	220502_s_at	SLC13A1	207	63825_at	ABHD2
197	220503_at	SLC13A1	208	87100_at	ABHD2

NA: Not available. Gene unidentified.

Supplementary Table 3: STAT5 Signature: Downregulated genes.

Probe	Gene Symbol	Probe	Gene Symbol
1 1405_i_at	CCL5	46 203296_s_at	ATP1A2
2 1431_at	CYP2E1	47 203369_x_at	PDLIM7
3 200696_s_at	GSN	48 203370_s_at	PDLIM7
4 200951_s_at	CCND2	49 203408_s_at	SATB1
5 200952_s_at	CCND2	50 203414_at	MMD
6 200953_s_at	CCND2	51 203415_at	PDCD6
7 200965_s_at	ABLIM1	52 203440_at	CDH2
8 200974_at	ACTA2	53 203441_s_at	CDH2
9 201495_x_at	MYH11	54 203498_at	RCAN2
10 201496_x_at	MYH11	55 203547_at	CD4
11 201497_x_at	MYH11	56 203548_s_at	LPL
12 201539_s_at	FHL1	57 203549_s_at	LPL
13 201540_at	FHL1	58 203550_s_at	FAM189B
14 201564_s_at	FSCN1	59 203661_s_at	TMOD1
15 201842_s_at	EFEMP1	60 203662_s_at	TMOD1
16 201843_s_at	EFEMP1	61 203666_at	CXCL12
17 201925_s_at	CD55	62 203697_at	FRZB
18 201926_s_at	CD55	63 203698_s_at	FRZB
19 201963_at	ACSL1	64 203716_s_at	DPP4
20 202222_s_at	DES	65 203717_at	DPP4
21 202237_at	NNMT	66 203741_s_at	ADCY7
22 202238_s_at	NNMT	67 203861_s_at	ACTN2
23 202269_x_at	GBP1	68 203862_s_at	ACTN2
24 202270_at	GBP1	69 203863_at	ACTN2
25 202377_at	NA	70 203864_s_at	ACTN2
26 202378_s_at	LEPROT	71 203868_s_at	VCAM1
27 202497_x_at	SLC2A3	72 203872_at	ACTA1
28 202498_s_at	SLC2A3	73 203879_at	PIK3CD
29 202499_s_at	SLC2A3	74 203887_s_at	THBD
30 202517_at	CRMP1	75 203888_at	THBD
31 202587_s_at	AK1	76 203889_at	SCG5
32 202588_at	AK1	77 203932_at	HLA-DMB
33 202746_at	ITM2A	78 203951_at	CNN1
34 202747_s_at	ITM2A	79 203979_at	CYP27A1
35 202796_at	SYNPO	80 203980_at	FABP4
36 202860_at	DENND4B	81 204030_s_at	SCHIP1
37 203000_at	STMN2	82 204057_at	IRF8
38 203001_s_at	STMN2	83 204099_at	SMARCD3
39 203065_s_at	CAV1	84 204116_at	IL2RG
40 203066_at	CHST15	85 204118_at	CD48
41 203146_s_at	GABBR1	86 204154_at	CDO1
42 203185_at	RASSF2	87 204165_at	WASF1
43 203242_s_at	PDLIM5	88 204179_at	MB
44 203243_s_at	PDLIM5	89 204192_at	CD37
45 203295_s_at	ATP1A2	90 204217_s_at	RTN2

91	204236_at	FLI1	139	204988_at	FGB
92	204256_at	ELOVL6	140	204995_at	CDK5R1
93	204284_at	PPP1R3C	141	204996_s_at	CDK5R1
94	204310_s_at	NPR2	142	204997_at	GPD1
95	204311_at	ATP1B2	143	205013_s_at	ADORA2A
96	204364_s_at	REEP1	144	205040_at	ORM1
97	204365_s_at	REEP1	145	205041_s_at	NA
98	204425_at	ARHGAP4	146	205049_s_at	CD79A
99	204472_at	GEM	147	205055_at	ITGAE
100	204482_at	CLDN5	148	205082_s_at	AOX1
101	204483_at	ENO3	149	205083_at	AOX1
102	204505_s_at	EPB49	150	205110_s_at	FGF13
103	204562_at	IRF4	151	205163_at	MYLPF
104	204563_at	SELL	152	205177_at	TNNI1
105	204570_at	COX7A1	153	205200_at	CLEC3B
106	204581_at	CD22	154	205214_at	STK17B
107	204607_at	HMGCS2	155	205221_at	HGD
108	204612_at	PKIA	156	205254_x_at	TCF7
109	204631_at	MYH2	157	205255_x_at	TCF7
110	204646_at	DPYD	158	205257_s_at	AMPH
111	204655_at	CCL5	159	205265_s_at	SPEG
112	204667_at	FOXA1	160	205267_at	POU2AF1
113	204674_at	LRMP	161	205291_at	IL2RB
114	204712_at	WIF1	162	205297_s_at	CD79B
115	204737_s_at	NA	163	205306_x_at	KMO
116	204774_at	EVI2A	164	205307_s_at	KMO
117	204780_s_at	FAS	165	205336_at	PVALB
118	204781_s_at	FAS	166	205352_at	SERPINI1
119	204782_at	MLF1	167	205374_at	SLN
120	204783_at	MLF1	168	205382_s_at	CFD
121	204784_s_at	MLF1	169	205384_at	FXYD1
122	204794_at	DUSP2	170	205388_at	TNNC2
123	204802_at	RRAD	171	205389_s_at	ANK1
124	204803_s_at	RRAD	172	205390_s_at	ANK1
125	204810_s_at	CKM	173	205391_x_at	ANK1
126	204814_at	CADPS	174	205404_at	HSD11B1
127	204844_at	ENPEP	175	205421_at	SLC22A3
128	204845_s_at	ENPEP	176	205444_at	ATP2A1
129	204865_at	CA3	177	205450_at	PHKA1
130	204885_s_at	MSLN	178	205456_at	CD3E
131	204888_s_at	NEURL	179	205478_at	PPP1R1A
132	204889_s_at	NEURL	180	205484_at	SIT1
133	204890_s_at	LCK	181	205485_at	RYR1
134	204891_s_at	LCK	182	205488_at	GZMA
135	204894_s_at	AOC3	183	205489_at	CRYM
136	204948_s_at	FST	184	205500_at	C5
137	204963_at	SSPN	185	205508_at	SCN1B
138	204964_s_at	SSPN	186	205544_s_at	CR2

187	205553_s_at	CSRP3	235	206106_at	MAPK12
188	205554_s_at	DNASE1L3	236	206118_at	STAT4
189	205589_at	MYL3	237	206126_at	CXCR5
190	205591_at	OLFM1	238	206134_at	ADAMDEC1
191	205599_at	TRAF1	239	206150_at	CD27
192	205600_x_at	HOXB5	240	206159_at	GDF10
193	205601_s_at	HOXB5	241	206160_at	APOBEC2
194	205604_at	HOXD9	242	206181_at	SLAMF1
195	205605_at	HOXD9	243	206186_at	MPP3
196	205610_at	MYOM1	244	206201_s_at	MEOX2
197	205624_at	CPA3	245	206202_at	MEOX2
198	205636_at	SH3GL3	246	206204_at	GRB14
199	205637_s_at	SH3GL3	247	206208_at	CA4
200	205651_x_at	RAPGEF4	248	206209_s_at	CA4
201	205668_at	LY75	249	206216_at	SRPK3
202	205693_at	TNNT3	250	206276_at	LY6D
203	205712_at	PTPRD	251	206287_s_at	ITIH4
204	205718_at	ITGB7	252	206296_x_at	MAP4K1
205	205728_at	NA	253	206304_at	MYBPH
206	205738_s_at	FABP3	254	206337_at	CCR7
207	205741_s_at	DTNA	255	206341_at	IL2RA
208	205756_s_at	F8	256	206344_at	PON1
209	205758_at	CD8A	257	206345_s_at	PON1
210	205766_at	TCAP	258	206349_at	LGI1
211	205794_s_at	NOVA1	259	206353_at	COX6A2
212	205798_at	IL7R	260	206365_at	XCL1
213	205808_at	ASPH	261	206366_x_at	XCL1
214	205817_at	SIX1	262	206372_at	MYF6
215	205819_at	MARCO	263	206375_s_at	HSPB3
216	205826_at	MYOM2	264	206393_at	TNNI2
217	205831_at	CD2	265	206398_s_at	CD19
218	205856_at	SLC14A1	266	206417_at	CNGA1
219	205860_x_at	FOLH1	267	206423_at	ANGPTL7
220	205861_at	SPIB	268	206433_s_at	SPOCK3
221	205872_x_at	PDE4DIP	269	206434_at	SPOCK3
222	205876_at	LIFR	270	206437_at	S1PR4
223	205892_s_at	FABP1	271	206453_s_at	NDRG2
224	205911_at	PTH1R	272	206457_s_at	DIO1
225	205923_at	RELN	273	206470_at	PLXNC1
226	205926_at	IL27RA	274	206471_s_at	PLXNC1
227	205942_s_at	ACSM3	275	206485_at	CD5
228	205951_at	MYH1	276	206488_s_at	CD36
229	205952_at	KCNK3	277	206527_at	ABAT
230	205960_at	PDK4	278	206545_at	CD28
231	205983_at	DPEP1	279	206574_s_at	PTP4A3
232	206046_at	ADAM23	280	206586_at	CNR2
233	206060_s_at	PTPN22	281	206589_at	GFI1
234	206104_at	ISL1	282	206612_at	CACNG1

283	206618_at	IL18R1	331	207349_s_at	UCP3
284	206630_at	TYR	332	207351_s_at	SH2D2A
285	206641_at	TNFRSF17	333	207373_at	HOXD10
286	206656_s_at	C20orf3	334	207437_at	NOVA1
287	206657_s_at	MYOD1	335	207445_s_at	CCR9
288	206693_at	IL7	336	207453_s_at	DNAJB5
289	206717_at	MYH8	337	207460_at	GZMM
290	206759_at	FCER2	338	207521_s_at	ATP2A3
291	206760_s_at	FCER2	339	207522_s_at	ATP2A3
292	206761_at	CD96	340	207526_s_at	IL1RL1
293	206762_at	KCNA5	341	207554_x_at	TBXA2R
294	206804_at	CD3G	342	207555_s_at	TBXA2R
295	206805_at	SEMA3A	343	207558_s_at	PITX2
296	206812_at	ADRB3	344	207583_at	ABCD2
297	206833_s_at	ACYP2	345	207641_at	TNFRSF13B
298	206887_at	CCBP2	346	207662_at	TBX1
299	206908_s_at	CLDN11	347	207681_at	CXCR3
300	206909_at	NA	348	207726_at	ESRRB
301	206914_at	CRTAM	349	207761_s_at	METTL7A
302	206955_at	AQP7	350	207819_s_at	ABCB4
303	206974_at	CXCR6	351	207849_at	IL2
304	206975_at	LTA	352	207861_at	CCL22
305	206980_s_at	FLT3LG	353	207897_at	CRHR2
306	206996_x_at	CACNB1	354	207902_at	IL5RA
307	207034_s_at	GLI2	355	207919_at	ART1
308	207050_at	CACNA2D1	356	207957_s_at	PRKCB
309	207066_at	HRC	357	207961_x_at	MYH11
310	207087_x_at	ANK1	358	207977_s_at	DPT
311	207089_at	NRAP	359	207979_s_at	CD8B
312	207092_at	LEP	360	208010_s_at	PTPN22
313	207103_at	KCND2	361	208011_at	PTPN22
314	207110_at	KCNJ12	362	208056_s_at	CBFA2T3
315	207144_s_at	CITED1	363	208057_s_at	GLI2
316	207148_x_at	MYOZ2	364	208078_s_at	NA
317	207175_at	ADIPOQ	365	208116_s_at	MAN1A1
318	207184_at	SLC6A13	366	208148_at	MYH4
319	207238_s_at	PTPRC	367	208169_s_at	PTGER3
320	207249_s_at	SLC28A2	368	208186_s_at	LIPE
321	207274_at	CHRNE	369	208204_s_at	CAV3
322	207275_s_at	ACSL1	370	208206_s_at	RASGRP2
323	207282_s_at	MYOG	371	208213_s_at	KCNAB1
324	207284_s_at	ASPH	372	208251_at	KCNC4
325	207302_at	SGCG	373	208352_x_at	ANK1
326	207312_at	PHKG1	374	208353_x_at	ANK1
327	207317_s_at	CASQ2	375	208380_at	LBX1
328	207323_s_at	MBP	376	208383_s_at	PCK1
329	207339_s_at	LTB	377	208406_s_at	GRAP2
330	207345_at	FST	378	208408_at	PTN

379	208414_s_at	HOXB3	427	209975_at	CYP2E1
380	208430_s_at	DTNA	428	209976_s_at	CYP2E1
381	208481_at	ASB4	429	210031_at	CD247
382	208510_s_at	PPARG	430	210038_at	PRKCCQ
383	208522_s_at	PTCH1	431	210039_s_at	PRKCCQ
384	208534_s_at	NA	432	210051_at	RAPGEF3
385	208568_at	MC2R	433	210055_at	TSHR
386	208602_x_at	CD6	434	210066_s_at	AQP4
387	208789_at	PTRF	435	210067_at	AQP4
388	208790_s_at	PTRF	436	210068_s_at	AQP4
389	208813_at	GOT1	437	210069_at	NA
390	209072_at	MBP	438	210070_s_at	NA
391	209083_at	CORO1A	439	210072_at	CCL19
392	209135_at	ASPH	440	210078_s_at	KCNAB1
393	209234_at	KIF1B	441	210079_x_at	KCNAB1
394	209291_at	ID4	442	210090_at	ARC
395	209292_at	ID4	443	210091_s_at	DTNA
396	209293_x_at	ID4	444	210096_at	CYP4B1
397	209392_at	ENPP2	445	210116_at	SH2D1A
398	209459_s_at	ABAT	446	210121_at	B3GALT2
399	209460_at	ABAT	447	210136_at	MBP
400	209465_x_at	PTN	448	210140_at	CST7
401	209466_x_at	PTN	449	210147_at	ART3
402	209469_at	GPM6A	450	210155_at	MYOC
403	209470_s_at	GPM6A	451	210168_at	C6
404	209524_at	HDGFRP3	452	210176_at	TLR1
405	209525_at	HDGFRP3	453	210185_at	CACNB1
406	209526_s_at	HDGFRP3	454	210189_at	HSPA1L
407	209550_at	NDN	455	210198_s_at	PLP1
408	209554_at	CD36	456	210298_x_at	FHL1
409	209555_s_at	CD36	457	210299_s_at	FHL1
410	209568_s_at	RGL1	458	210305_at	PDE4DIP
411	209685_s_at	PRKCB	459	210356_x_at	MS4A1
412	209687_at	CXCL12	460	210370_s_at	LY9
413	209695_at	PTP4A3	461	210374_x_at	PTGER3
414	209700_x_at	PDE4DIP	462	210375_at	PTGER3
415	209703_x_at	METTL7A	463	210377_at	ACSM3
416	209721_s_at	IFFO1	464	210439_at	ICOS
417	209742_s_at	MYL2	465	210442_at	IL1RL1
418	209815_at	PTCH1	466	210448_s_at	P2RX5
419	209816_at	PTCH1	467	210461_s_at	ABLIM1
420	209827_s_at	IL16	468	210471_s_at	KCNAB1
421	209828_s_at	IL16	469	210550_s_at	RASGRF1
422	209877_at	SNCG	470	210607_at	FLT3LG
423	209888_s_at	MYL1	471	210611_s_at	DTNA
424	209904_at	TNNC1	472	210632_s_at	SGCA
425	209905_at	HOXA9	473	210643_at	TNFSF11
426	209928_s_at	MSC	474	210727_at	CALCA

475	210728_s_at	CALCA	523	211681_s_at	PDLIM5
476	210736_x_at	DTNA	524	211737_x_at	PTN
477	210744_s_at	IL5RA	525	211751_at	PDE4DIP
478	210786_s_at	FLI1	526	211856_x_at	CD28
479	210831_s_at	PTGER3	527	211861_x_at	CD28
480	210832_x_at	PTGER3	528	211893_x_at	CD6
481	210833_at	PTGER3	529	211900_x_at	CD6
482	210834_s_at	PTGER3	530	211909_x_at	PTGER3
483	210839_s_at	ENPP2	531	211986_at	AHNAK
484	210865_at	FASLG	532	212097_at	CAV1
485	210868_s_at	ELOVL6	533	212224_at	ALDH1A1
486	210875_s_at	ZEB1	534	212390_at	PDE4DIP
487	210887_s_at	EVC	535	212392_s_at	PDE4DIP
488	210896_s_at	ASPH	536	212412_at	PDLIM5
489	210906_x_at	AQP4	537	212551_at	CAP2
490	210924_at	OLFM1	538	212554_at	CAP2
491	210942_s_at	ST3GAL6	539	212587_s_at	PTPRC
492	210948_s_at	LEF1	540	212588_at	PTPRC
493	210967_x_at	CACNB1	541	212592_at	IGJ
494	210976_s_at	PFKM	542	212624_s_at	CHN1
495	211138_s_at	KMO	543	212627_s_at	NA
496	211153_s_at	TNFSF11	544	212706_at	RASA4
497	211197_s_at	ICOSLG	545	212707_s_at	NA
498	211198_s_at	ICOSLG	546	212758_s_at	ZEB1
499	211199_s_at	ICOSLG	547	212764_at	ZEB1
500	211203_s_at	CNTN1	548	212813_at	JAM3
501	211207_s_at	ACSL6	549	212817_at	DNAJB5
502	211209_x_at	SH2D1A	550	212873_at	HMHA1
503	211210_x_at	SH2D1A	551	213036_x_at	ATP2A3
504	211211_x_at	SH2D1A	552	213042_s_at	ATP2A3
505	211230_s_at	PIK3CD	553	213068_at	DPT
506	211265_at	PTGER3	554	213071_at	DPT
507	211269_s_at	IL2RA	555	213096_at	TMCC2
508	211273_s_at	TBX1	556	213131_at	OLFM1
509	211274_at	TBX1	557	213160_at	DOCK2
510	211333_s_at	FASLG	558	213161_at	TSTD2
511	211339_s_at	ITK	559	213197_at	ASTN1
512	211424_x_at	METTL7A	560	213201_s_at	TNNT1
513	211469_s_at	CXCR6	561	213241_at	PLXNC1
514	211476_at	MYOZ2	562	213262_at	SACS
515	211478_s_at	DPP4	563	213332_at	PAPPA2
516	211493_x_at	DTNA	564	213335_s_at	ST3GAL6
517	211510_s_at	CRHR2	565	213355_at	ST3GAL6
518	211516_at	IL5RA	566	213362_at	PTPRD
519	211517_s_at	IL5RA	567	213371_at	LDB3
520	211565_at	SH3GL3	568	213388_at	PDE4DIP
521	211590_x_at	TBXA2R	569	213450_s_at	ICOSLG
522	211677_x_at	CADM3	570	213539_at	CD3D

571	213648_at	NA	619	214914_at	FAM13C
572	213669_at	FCHO1	620	215027_at	RAPGEF3
573	213683_at	ACSL6	621	215100_at	C6orf105
574	213684_s_at	PDLIM5	622	215332_s_at	CD8B
575	213706_at	GPD1	623	215352_at	GIMAP5
576	213717_at	LDB3	624	215363_x_at	FOLH1
577	213782_s_at	MYOZ2	625	215442_s_at	TSHR
578	213791_at	PENK	626	215443_at	TSHR
579	213855_s_at	LIPE	627	215501_s_at	DUSP10
580	213915_at	NKG7	628	215575_at	PDE4DIP
581	213933_at	PTGER3	629	215688_at	RASGRF1
582	213948_x_at	CADM3	630	215719_x_at	FAS
583	213953_at	KRT20	631	215785_s_at	CYFIP2
584	213958_at	CD6	632	215787_at	ACTA2
585	214032_at	ZAP70	633	215967_s_at	LY9
586	214040_s_at	GSN	634	216236_s_at	NA
587	214043_at	PTPRD	635	216238_s_at	FGB
588	214049_x_at	CD7	636	216252_x_at	FAS
589	214066_x_at	NPR2	637	216265_x_at	MYH7
590	214099_s_at	PDE4DIP	638	216409_at	ACSL6
591	214121_x_at	PDLIM7	639	216424_at	CD4
592	214122_at	PDLIM7	640	216432_at	SLC28A2
593	214129_at	PDE4DIP	641	216567_at	NA
594	214130_s_at	PDE4DIP	642	216693_x_at	HDGFRP3
595	214158_s_at	NA	643	216734_s_at	CXCR5
596	214219_x_at	MAP4K1	644	216803_at	PDLIM5
597	214246_x_at	MINK1	645	216804_s_at	PDLIM5
598	214266_s_at	PDLIM7	646	216887_s_at	LDB3
599	214278_s_at	NDRG2	647	216888_at	LDB3
600	214279_s_at	NDRG2	648	216947_at	DES
601	214285_at	FABP3	649	216986_s_at	IRF4
602	214307_at	HGD	650	216987_at	IRF4
603	214308_s_at	HGD	651	217062_at	DMPK
604	214339_s_at	MAP4K1	652	217066_s_at	DMPK
605	214367_at	RASGRP2	653	217081_at	OR2H2
606	214368_at	RASGRP2	654	217119_s_at	CXCR3
607	214369_s_at	RASGRP2	655	217147_s_at	TRAT1
608	214450_at	CTSW	656	217228_s_at	ASB4
609	214505_s_at	FHL1	657	217229_at	ASB4
610	214506_at	GPR182	658	217303_s_at	ADRB3
611	214551_s_at	CD7	659	217418_x_at	MS4A1
612	214584_x_at	ACACB	660	217422_s_at	CD22
613	214601_at	TPH1	661	217425_at	MC2R
614	214608_s_at	EYA1	662	217434_at	MC2R
615	214621_at	GYS2	663	217452_s_at	B3GALT2
616	214651_s_at	HOXA9	664	217483_at	FOLH1
617	214761_at	ZNF423	665	217487_x_at	FOLH1
618	214846_s_at	ALPK3	666	217495_x_at	CALCA

667	217561_at	CALCA	715	220037_s_at	LYVE1
668	217702_at	IL27RA	716	220048_at	EDAR
669	218168_s_at	CABC1	717	220059_at	STAP1
670	218376_s_at	MICAL1	718	220131_at	FXYD7
671	218550_s_at	LRRC20	719	220144_s_at	ANKRD5
672	218623_at	HMP19	720	220161_s_at	EPB41L4B
673	218711_s_at	SDPR	721	220284_at	DKKL1
674	218723_s_at	C13orf15	722	220330_s_at	SAMSN1
675	218730_s_at	OGN	723	220338_at	RALGPS2
676	218805_at	GIMAP5	724	220395_at	DNAJA4
677	218825_at	EGFL7	725	220423_at	PLA2G2D
678	218865_at	MOSC1	726	220484_at	MCOLN3
679	218934_s_at	HSPB7	727	220556_at	ATP1B4
680	219059_s_at	LYVE1	728	220558_x_at	TSPAN32
681	219064_at	ITIH5	729	220570_at	RETN
682	219139_s_at	CROCCL2	730	220613_s_at	SYTL2
683	219140_s_at	RBP4	731	220675_s_at	PNPLA3
684	219196_at	SCG3	732	220684_at	TBX21
685	219230_at	TMEM100	733	220786_s_at	SLC38A4
686	219256_s_at	SH3TC1	734	220868_s_at	SLC7A10
687	219371_s_at	KLF2	735	220979_s_at	ST6GALNAC5
688	219432_at	EVC	736	220984_s_at	SLCO5A1
689	219438_at	NKAIN1	737	221009_s_at	ANGPTL4
690	219440_at	RAI2	738	221163_s_at	MLXIPL
691	219464_at	CA14	739	221217_s_at	A2BP1
692	219478_at	WFDC1	740	221232_s_at	ANKRD2
693	219500_at	CLCF1	741	221279_at	GDAP1
694	219509_at	MYOZ1	742	221295_at	CIDEA
695	219645_at	CASQ1	743	221302_at	KLF15
696	219647_at	POPDC2	744	221310_at	FGF14
697	219655_at	C7orf10	745	221331_x_at	CTLA4
698	219666_at	MS4A6A	746	221345_at	FFAR2
699	219728_at	MYOT	747	221350_at	HOXC8
700	219772_s_at	SMPX	748	221368_at	NEU2
701	219777_at	GIMAP6	749	221384_at	UCP1
702	219803_at	ANGPTL3	750	221417_x_at	S1PR5
703	219827_at	UCP3	751	221424_s_at	OR51E2
704	219829_at	ITGB1BP2	752	221523_s_at	RRAGD
705	219841_at	AICDA	753	221524_s_at	RRAGD
706	219944_at	CLIP4	754	221557_s_at	LEF1
707	219949_at	LRRC2	755	221558_s_at	LEF1
708	219963_at	DUSP13	756	221563_at	DUSP10
709	219971_at	IL21R	757	221658_s_at	IL21R
710	219983_at	HRASLS	758	221667_s_at	HSPB8
711	219984_s_at	HRASLS	759	221755_at	EHBP1L1
712	219993_at	SOX17	760	221760_at	MAN1A1
713	220016_at	AHNAK	761	221921_s_at	CADM3
714	220027_s_at	RASIP1	762	221928_at	ACACB

763	221976_s_at	HDGFRP3	774	34408_at	RTN2
764	221994_at	PDLIM5	775	34471_at	MYH8
765	222049_s_at	RBP4	776	35974_at	LRMP
766	222062_at	IL27RA	777	36030_at	IFFO1
767	222100_at	CYP2E1	778	37201_at	ITIH4
768	222152_at	PDCD6	779	37996_s_at	DMPK
769	222259_s_at	SPO11	780	38521_at	CD22
770	222379_at	KCNE4	781	43427_at	ACACB
771	222380_s_at	PDCD6	782	49452_at	ACACB
772	222381_at	PDCD6	783	64064_at	GIMAP5
773	336_at	TBXA2R	784	91703_at	EHBP1L1

NA: Not available. Gene unidentified.

Supplementary Table 4: Receptor status and gene signature status in breast cancer metastasis.

Tumor IDs	Metastatic Site	Receptors			Signatures	
		ER	PR	ERBB2	TNC	STAT5
113471T	Brain	-1.830751357	-3.17239816	2.06085951	0	1
116610T	Brain	-1.465143132	-3.248642051	3.317778651	0	1
112403T	Brain	-1.288143474	-3.176511661	1.263059326	0	1
12370T	Brain	-1.235059344	-3.111259873	6.339716917	0	1
107961T	Bone	-1.23346411	-3.322369986	3.053930921	0	1
110312T	Brain	-1.16329586	-3.250422845	3.673912523	0	1
111276T	Brain	-1.050693531	-3.433069353	6.345161274	0	1
107696T	Bone	-0.942358662	-3.119192641	2.890295983	0	1
102962T	Brain	-0.872675877	-2.734203355	1.972878774	0	1
11993T	Lung	-0.821297926	-3.275658113	2.703537912	1	1
5381T	Lung	-0.742084304	-2.708174014	2.072593023	0	0
15112T	Lung	-0.688731497	-2.732951633	6.370184109	0	0
109506T	Brain	-0.672496225	-2.669442367	3.023367078	0	1
113542T	Brain	-0.527455573	-3.473189186	3.458361567	0	1
109734T	Brain	-0.494866008	-2.075077793	3.763338048	0	0
B41-Met	Liver	-0.470886076	-2.090127649	6.57132669	0	0
101258T	Lung	-0.374109907	-2.190499033	1.07473238	0	0
1813T	Lung	-0.268767035	-2.194972009	2.185112498	1	0
103696T	Lung	-0.188181235	-2.136521739	1.183187552	1	0
106570T	Lung	-0.157656362	-1.918140845	2.778338028	1	0
106201T	Lung	-0.148477205	-2.188903545	2.369829554	1	0
14191T	Ovary	-0.138033708	-2.1	5.072197183	1	0
3878T	Bone	-0.128077476	-2.097221936	1.638004213	1	0
B36-Met	Ovary	-0.039341404	-2.061485178	4.920805732	1	0
104406T	Brain	0.154168447	-3.278782587	6.698444624	0	1
109714T	Brain	0.172369845	-2.699774892	3.655078724	0	1
14045T	Lung	0.218135593	-2.11887165	3.391685393	1	0
7130T	Lung	0.265929347	-2.144654065	1.978642523	1	0
12749T	Liver	0.266929856	-2.176015723	2.310282207	1	0
6752T	Bone	0.506393211	-2.306995769	1.735280899	1	0
11887T	Bone	1.503309862	-2.593781328	2.105800257	1	1
115463T	Bone	1.535921208	-2.932140219	5.852007454	1	1
112282T	Bone	1.704327937	-3.207715602	6.018694417	1	1
6565T	Lung	1.769830986	-1.786909091	5.401527581	1	0
4059T	Lung	1.917548954	-1.146846374	2.125032742	1	0
14891T	Bone	2.002164861	-2.79892194	5.476565214	0	0
14568T	Brain	2.123872649	-3.220393601	6.387693777	0	1
10519T	Lung	2.146201055	-1.995617188	2.560816901	1	0
B35-Met	Lung	2.59665347	-2.070533275	2.845413745	1	0
105880T	Bone	2.768450704	-2.164498835	5.307108286	1	0
B22-Met	Lung	2.926370931	-2.110081909	2.873069012	1	0
107426T	Brain	3.114548997	-2.005714286	3.351844772	1	0
B21-Met	Ovary	3.588766245	-2.131835522	1.759943662	1	0
B37-Met	Ovary	3.713017977	-1.82125003	2.539745763	1	0
107502T	Brain	3.761136592	-3.269476049	7.00963764	0	1

13685T	Brain	3.794888619	-3.11259259	6.224959953	0	1
B38-Met	Ovary	3.829549296	-2.070394524	1.861007921	1	0
12740T	Lung	3.939493671	-2.21164557	6.021380282	1	0
B19-Met	Duodenum	3.9518529	-2.172040177	2.442602546	1	0
3032T	Liver	3.954957351	-2.198040087	6.336854131	1	0
101815T	Liver	4.219943344	-2.00709883	2.567130444	1	0
B34-Met	Lung	4.384902127	-1.502873239	2.626356926	1	0
112397T	Bone	4.403113352	-3.197712927	4.494674639	1	1
105079T	Bone	4.411933116	-3.337418304	5.455428668	1	1
106389T	Liver	4.521383902	-1.376276446	3.10129143	1	0
B20-Met	Ovary	4.547722611	1.601943381	2.448458945	1	0
107482T	Bone	4.557931533	-2.179002159	3.465067577	1	0
109594T	Bone	4.581710522	-2.515236031	3.040890255	1	0
100184T	Brain	4.610466405	-2.032612899	2.421881045	1	0
3087T	Ovary	4.752609309	-1.487288136	2.579579243	1	0
B40-Met	Chest Wall	4.854606525	-1.91385325	3.613367089	1	0
114112T	Bone	5.125350984	0.468192084	2.771693091	1	1
12367T	Bone	5.292417238	-2.097905476	2.478227848	1	0
B39-Met	Bone	5.464486503	0.691028303	3.193383447	1	0
105188T	Brain	5.866685034	-1.627681366	3.52997155	1	0
110032T	Brain	6.035894554	-3.245044556	3.005472886	0	1
110783T	Lung	6.146083054	-2.816013137	3.397398358	1	1

Red: Positive. Green: Negative.