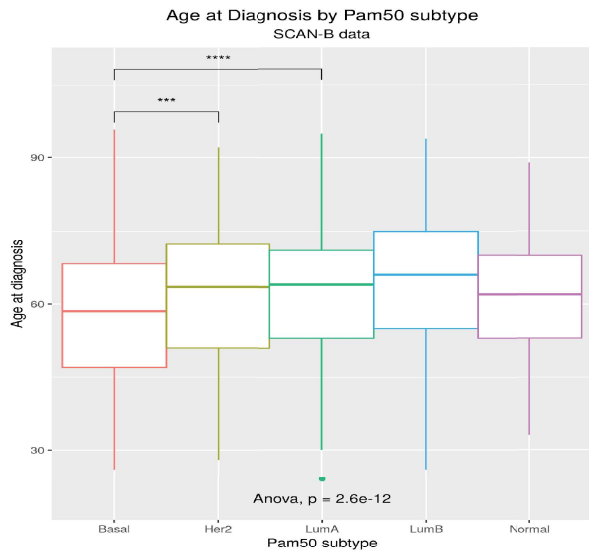
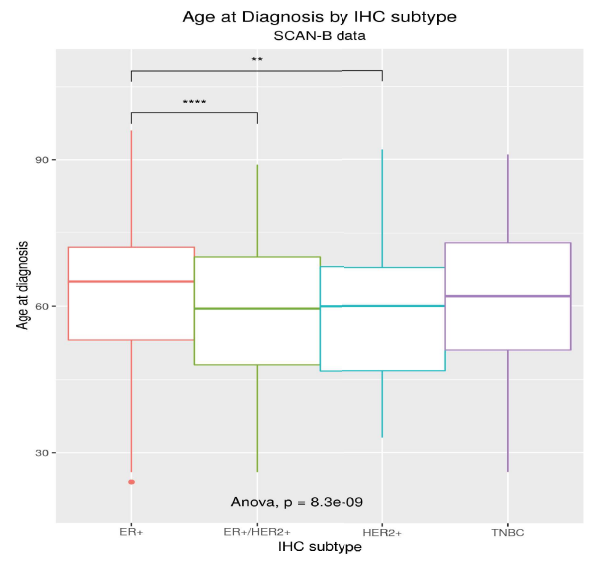


Supplemental Fig. 1

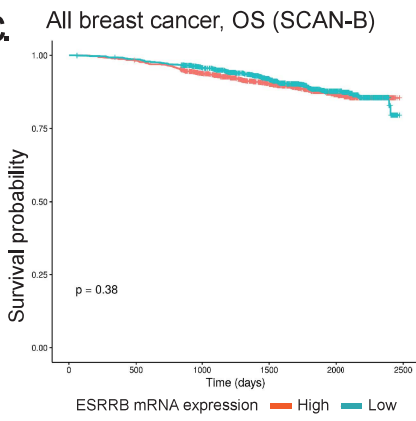
a.



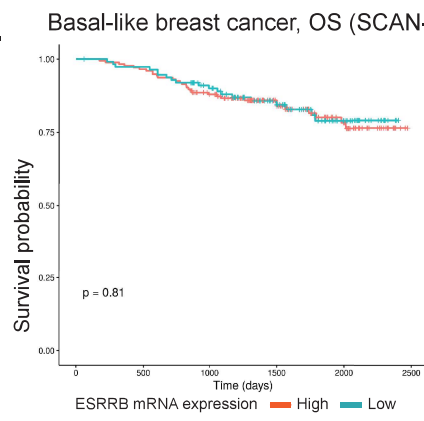
b.



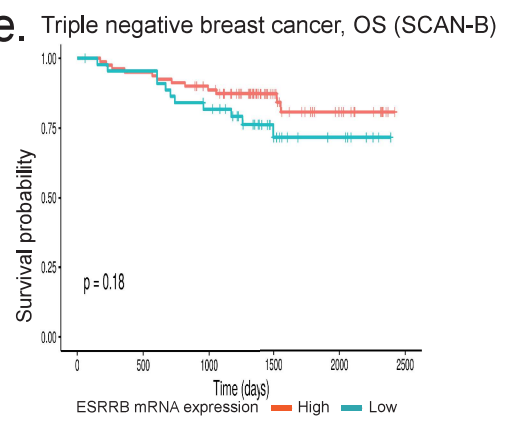
c.



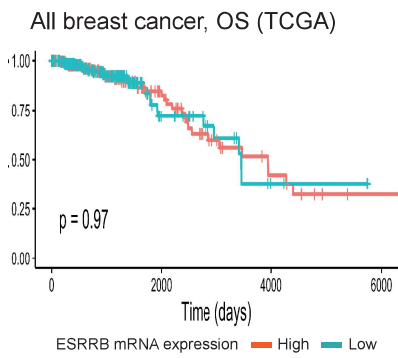
d.



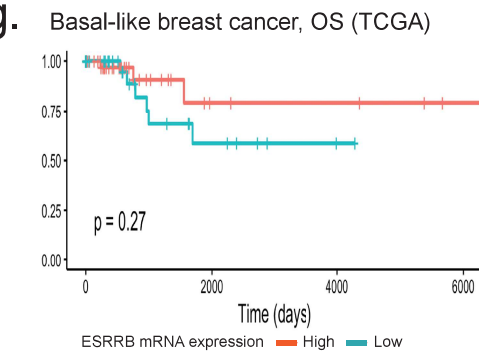
e.



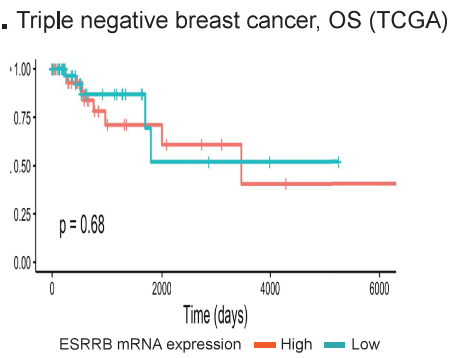
f.



g.



h.



Supplemental Fig. 2

a.

**Age**

Race	mean	Classification	n	mean
CW	53.68	TNBC	17	56.76
		NTN	20	52.59
AA	53.23	TNBC	39	53.29
		NTN	30	54.18

b.

**Mean ESRRB CN by Tumor size**

Tumor size	Correlative stage	CW, mean=0.775						AA, mean=0.591					
		TNBC			NTN			TNBC			NTN		
		mean	sd	n	mean	sd	n	mean	sd	n	mean	sd	n
>0.1 ≤ 0.5	T1a	-	-	-	1.197	0.000	1	0.580	0.000	1	0.162	0.000	1
> 0.5 ≤ 1	T1b	0.829	0.000	1	1.330	0.451	2	0.760	0.247	10	0.945	0.452	9
> 1 ≤ 2	T1c	0.761	0.906	6	0.630	0.681	11	0.459	0.612	14	0.731	0.848	12
> 2 ≤ 5	T2	0.224	0.262	5	0.943	0.491	6	0.165	0.732	10	0.547	0.418	5
>5	T3	0.285	0.112	3	-	-	-	0.882	0.267	3	0.676	0.365	2

c.

**Pathology**

Race	Classification	Pathology	% patients
CW	TNBC	In situ/IDC	23.5%
		IDC	64.7%
		Other	11.8%
	NTN	In situ/IDC	-
		IDC	80.0%
		Other	20.0%
AA	TNBC	In situ/IDC	30.8%
		IDC	69.2%
		Other	-
	NTN	In situ/IDC	60.0%
		IDC	23.3%
		Other	16.7%

d.

**Lymph node status**

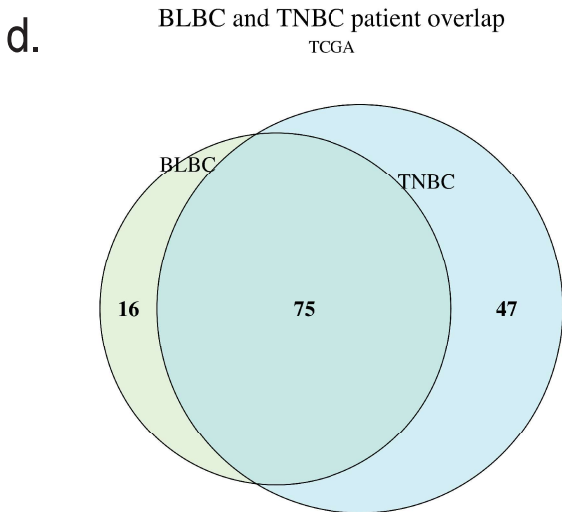
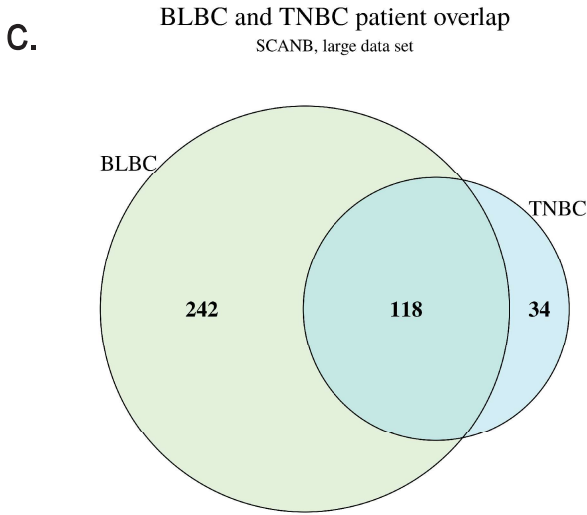
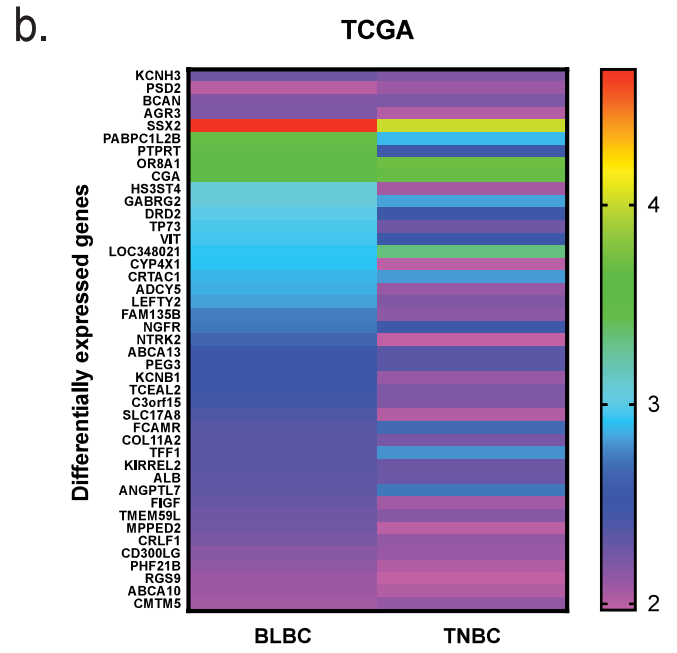
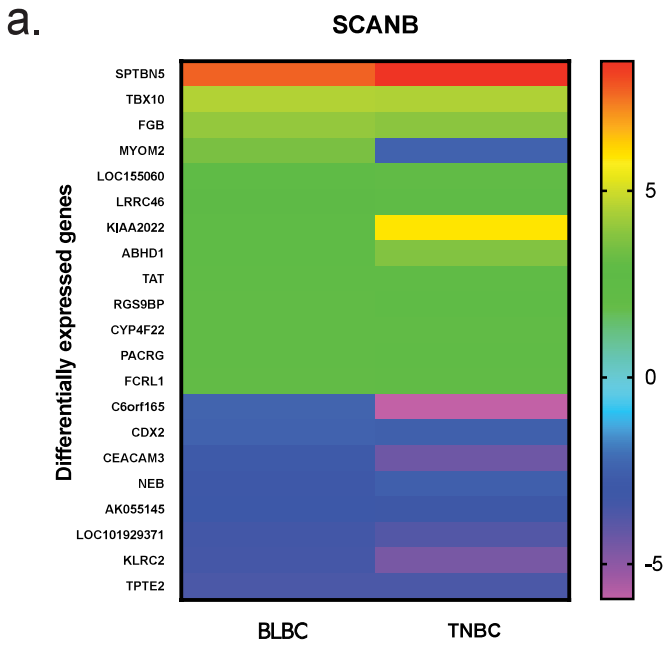
Race	Classification	% patients		
		Negative	Positive	NA
CW	TNBC	47%	29%	24%
	NTN	45%	40%	15%
AA	TNBC	56%	44%	0%
	NTN	50%	37%	13%

e.

**Metastasis**

Race	Classification	% patients		
		None	Local	Distant
CW	TNBC	59%	24%	18%
	NTN	45%	30%	25%
AA	TNBC	62%	21%	18%
	NTN	63%	23%	13%

Supplemental Fig. 3



**e.**

SCAN-B, BLBC			
	Motif	E-value	Unersered E-value
1	AAATAYAA	4.00E-17	4.00E-17
2	GTAGAGAY	8.40E-17	8.40E-17
3	GGATTAYA	1.00E-15	1.00E-15
4	GAGGCTGA	1.30E-14	1.30E-14
5	AAAAAAAA	1.60E-13	1.60E-13
6	AGTAGCTG	2.20E-13	2.20E-13
7	TCACYGCA	3.00E-13	3.00E-13
8	ACTGYACT	7.20E-13	7.20E-13
9	GAGCCTGC	2.30E-12	2.30E-12
10	CACCRRCR	1.90E-10	7.60E-11
11	GCTCACRC	2.60E-10	2.60E-10
12	CCKCRRCC	4.60E-10	4.60E-10
13	GTCTCGAW	1.20E-09	4.50E-10
14	GASACAGA	8.10E-10	2.70E-09
15	CAAAGTGC	1.50E-09	1.50E-09
16	AAATTAGC	1.60E-08	7.70E-10
17	GCAGGAGR	2.40E-07	2.40E-07
18	GCTCAGGM	4.80E-07	4.80E-07
19	TATTTWTW	1.50E-06	1.80E-11
20	CYGGGYTC	2.30E-06	1.90E-06
21	CTGTARTC	3.90E-06	1.30E-12
22	GBGCACAGA	4.70E-06	6.90E-07
23	CACCCGCS	8.00E-06	6.80E-04
24	GGTGAAC	2.50E-05	2.50E-05
25	GAGGCMGA	7.40E-05	7.40E-05
26	CACYGTGC	8.70E-05	8.70E-05
27	TTTTAAAA	8.70E-05	2.40E-04
28	GAGHGAGA	1.60E-04	9.50E-06
29	GTGTGTGY	1.90E-04	5.50E-04
30	GAGARCCG	2.70E-04	2.70E-04
31	ARGTGATC	7.50E-04	3.50E-04
32	ACCATGCC	1.30E-03	1.30E-03
33	CACSTGCC	1.80E-03	4.10E-04
34	AKWAAATA	3.70E-03	2.50E-04
35	CCCRCCYC	3.80E-03	3.90E-05
36	GAGAYGGA	2.30E-03	8.30E-05
37	CCCSRCSC	8.80E-03	3.80E-04
38	AAAAAYAA	2.00E-02	1.90E-02
39	GAAATAAK	2.40E-02	1.20E-02

SCAN-B, TNBC			
	Motif	E-value	Unersered E-value
1	TAMAAATA	2.20E-15	2.20E-15
2	CACKGCAC	3.20E-13	3.20E-13
3	CRGCCTCC	6.50E-12	6.50E-12
4	AAAAAWAA	1.80E-11	2.90E-11
5	CTGTAATC	2.90E-11	2.90E-11
6	AGCTTGGA	1.00E-09	4.20E-09
7	CCAGCTTA	1.90E-09	2.30E-10
8	GAGRCGGA	3.60E-09	3.60E-09
9	GCCYGGCC	4.70E-09	1.60E-09
10	BAGACAGA	4.50E-08	4.50E-08
11	AYATATRT	1.20E-07	1.20E-07
12	AAAAAWTA	2.20E-07	5.90E-08
13	AAATAAAH	2.70E-07	1.10E-07
14	CAGTGARC	3.80E-07	3.80E-07
15	CCACDCCC	1.10E-06	3.80E-07
21	CACCRYGC	1.80E-06	1.10E-07
16	CTCCTGAC	6.00E-06	9.90E-07
17	GCVCVCGC	7.70E-06	7.70E-06
18	TGGWGA	8.60E-06	3.80E-07
19	AGGCAGGA	8.90E-06	8.90E-06
20	SGAGACCA	9.90E-06	2.00E-05
22	ATCGCTTG	1.80E-05	1.80E-05
23	CWCACAC	2.40E-05	2.40E-05
24	AAGTCTCY	3.50E-05	3.50E-05
25	AMAGAAAA	5.40E-05	1.20E-04
26	CABAGTGA	5.80E-05	5.80E-05
27	GTAGAGAY	6.50E-05	2.80E-05
28	ATTWTAWA	1.30E-04	4.60E-06
30	GCCTGACC	1.40E-04	7.90E-04
29	CACCRCAC	3.80E-04	1.40E-05
31	GCGGCGCB	1.20E-03	5.10E-04
32	TCACITRA	1.30E-03	1.30E-03
33	CTGCKKCC	1.60E-03	1.40E-04
34	ACTACAGG	3.80E-03	5.90E-04
35	CCAGTVC	6.10E-03	1.00E-04
36	CTGGYTA	6.20E-03	1.50E-04
37	AAAAAAH	7.30E-03	3.40E-04
38	CTCCAYC	1.00E-02	6.50E-04
39	CTGCRCC	1.70E-02	1.00E-04
40	CCGCDGCC	1.70E-02	3.30E-02

Supplemental Table 1 DEGs in *ESRRB* high versus low patients, SCAN-B and TCGA

SCAN-B, BLBC			SCAN-B, TNBC			TCGA, BLBC			TCGA, TNBC		
Gene	logFC	P.Value	Gene	logFC	P.Value	Gene	logFC	P.Value	Gene	logFC	P.Value
SPTBN5	7.639370222	0.000873051	SPTBN5	8.474119915	0.00276	ALPI	4.769925	0.00191946	ADAM7	5.714245518	0.03321954
FLG	6.994851245	0.030036705	EXOC3L4	8.03463058	0.00008	PRAMEF8	4.70043972	0.00392003	LOC642929	4.857980995	0.00145424
BC065766	6.718097379	0.031511173	KIAA2022	5.909117267	0.00019	SSX2	4.67939373	0.01316319	GAGE2D	4.810456685	0.0383465
SFTPA2	6.27596873	0.00234021	UGT2B15	5.198585536	0.04513	OSTN	4.1337835	0.00176187	ELSPBP1	4.169925001	0.02105551
TMEFF2	5.935253136	0.029022906	PAH	4.903177801	0.00259	UGT2B11	3.81531009	0.02233415	SSX2	4.005907392	0.03025068
CIB4	5.542421462	0.006344489	IL17REL	4.801767819	0.00336	XAGE1D	3.78646867	0.02639049	GAGE8	3.973611276	0.03966881
TLL2	5.502385296	0.006993371	TRIML2	4.668769472	0.01595	PABPC12B	3.6701519	0.02132082	SPACA1	3.807354922	0.04874731
IFITM5	5.239709767	0.041785865	RP11	4.502733507	0.03916	TPRRT	3.64983451	8.50E-06	OR8A1	3.709460499	0.00316217
TIPARP	5.021939147	0.039978781	TBX10	4.472770595	0.00959	OR8A1	3.60992113	0.00195742	CGA	3.437170756	0.00198869
SLC8A1	5.018940109	0.043888801	AK093002	4.428159445	0.01006	CGA	3.55726059	0.04434046	LOC348021	3.32492902	0.01818799
AK091729	4.779418674	0.046404664	LOC494141	3.979636105	0.03110	MAGEB6	3.34063247	0.00924267	C7	3.170246407	5.68E-05
NTN3	4.699663842	0.006911973	GRIK5	3.943006643	0.04724	NCRNA00200	3.30297421	0.01912291	PABPC12B	2.881018425	0.01344203
FAM9C	4.697800912	0.007437151	ATP10B	3.901132671	0.02228	BPESC1	3.20943162	0.00595498	PIGR	2.853126792	0.00173869
NXNL2	4.673342092	0.019596239	FGF	3.863986331	0.01190	GPR64	3.09924532	5.14E-05	GABRG2	2.83078452	0.03458823
LOC100506730	4.652089627	0.047854364	AK056887	3.719072657	0.00493	PANX3	3.08017506	0.0059142	CRTAC1	2.813519774	1.59E-05
AK094577	4.593986107	0.000103129	ABHD1	3.713649521	0.03670	HSST4	3.07527343	0.00034294	TF1F	2.792195812	0.01268613
TBX10	4.525318833	0.013276925	GRIN3A	3.706993954	0.02539	GABRG2	3.05749104	0.00239052	SLC38A8	2.757270334	0.00919325
TMIE	4.517565838	0.029484905	DEFB124	3.543091681	0.03805	ZIC2	3.0465538	0.00261145	SLC44A4	2.735312897	0.00056991
GRIK1	4.47475979	0.02821595	ZP1	3.522836667	0.01918	FAM123A	3.01202226	0.00131872	ANGPTL7	2.729189436	0.00385304
PRKAG3	4.331722869	0.026115227	AK123450	3.516912447	0.00428	DRD2	2.99742808	3.08E-06	GAGE2A	2.725929618	0.04538448
SLC6A4	4.124948641	0.04062148	CLEC9A	3.513366355	0.02036	TP73	2.96144635	1.50E-07	OR7E5P	2.672449623	0.03534633
LPAR4	4.056102105	0.04268291	TPO	3.497630719	0.01047	VIT	2.94667087	8.10E-06	FCAMR	2.669343994	7.34E-05
ANXA13	4.052885868	0.011945107	GLD5	3.426685794	0.02329	NFASC	2.92584207	7.86E-06	NCRNA00052	2.661039672	0.01195538
FGF	4.025989727	0.005187143	RASA4CP	3.348876404	0.01468	LOC348021	2.92492902	0.05180449	LY6G6F	2.624832194	0.03215633
MAR4	3.870006874	0.043287681	RP3A	3.245058593	0.00579	CYP4X1	2.9207511	0.0001008	NGFR	2.554816762	5.74E-07
AK024736	3.774088451	0.014528722	GUCA1B	3.232228545	0.02331	CRTAC1	2.87404731	0.0002275	PTPR	2.552657607	0.00027074
AK128708	3.692015861	0.001341628	C19orf83	3.191135457	0.01322	ADCY5	2.85809697	3.28E-05	ABCA8	2.541942223	2.03E-05
GRIA4	3.651999261	0.02865887	SLC6A10P	3.145316915	0.00038	ZBTBB8	2.85808806	8.16E-05	VIT	2.525664901	0.00022548
LINC00491	3.603976673	0.036705444	FCRL1	2.997812435	0.03861	SSX4	2.84121691	0.02141746	DRD2	2.514807943	2.19E-05
DKFZp434J0226	3.558614319	0.010748635	AQP4	2.995801255	0.00601	LEFTY2	2.82537633	0.000636	ABCA13	2.351888464	0.00097296
MYOM2	3.540636408	0.025883866	LOC155060	2.991451077	0.05002	KIAA0319	2.80204189	7.37E-06	PEG3	2.350533558	0.00562794
AK124970	3.358091144	0.049041097	TAT	2.913089419	0.01823	FAM135B	2.74453756	0.00033217	C1orf146	2.321928095	0.03256025
LHX1	3.350989863	0.027099116	LRRC46	2.84854943	0.01623	NGFR	2.72813728	1.92E-06	CADM3	2.315570702	0.00011626
LINC00964	3.323078307	0.006463998	CSN1S1	2.800142359	0.01606	BMP7	2.71770217	0.00054048	SLC7A3	2.308138396	0.00092039
LOC389705	3.308892993	0.01250708	SCGB1A1	2.749999611	0.04515	ADAMTS18	2.68419729	2.44E-05	DSCAM1	2.307432823	1.46E-05
NKX2	3.212344494	0.006488279	LINC00202	2.747357412	0.02140	GP2	2.68028343	0.01533261	ALB	2.282947622	0.00016014
BC033241	3.145756283	0.033993858	CFHR1	2.71708801	0.04710	FSTL4	2.67952329	0.00012373	KIRREL2	2.27486237	0.00043675
AK021876	3.135691395	0.052528899	SEMA3A	2.702752905	0.00592	HOXB13	2.65050022	0.01111597	C2orf114	2.262569516	0.046725
SLCSA11	3.096699035	0.010702889	KRT9	2.637140327	0.01601	NTRK2	2.6485934	1.83E-06	TP73	2.258174427	1.87E-05
AK097921	3.045190181	0.003364293	AL592528	2.631859891	0.01351	SPSB4	2.59502837	0.00036131	SERPINA11	2.257518278	0.00202861
BC044608	3.036226991	0.012132061	BC036382	2.630416346	0.03850	RET	2.59075573	8.03E-06	COL11A2	2.235717668	0.00121666
LOC155060	2.826289683	0.014577276	BX648455	2.427905175	0.03460	DEFB132	2.57646585	0.02185179	PLA2G2A	2.234948466	0.00394852
CT45A1	2.820927706	0.001908482	RGS9BP	2.426216685	0.02888	C1QL1	2.56560947	0.00015401	HPCAL4	2.226773342	2.85E-07
LINC00886	2.789380613	0.003908043	PACRG	2.403796277	0.01022	MYBPC1	2.55612213	0.01002825	FBN3	2.226347371	0.00915598
AK128252	2.785083511	0.022883708	LOC100506022	2.368848311	0.04098	ABCA13	2.5477581	0.00079225	TCEAL2	2.209844999	0.00321494
ANKRD30B	2.690610855	0.037723802	RP11	2.343006996	0.00004	IGFBP1	2.53874659	0.00014519	BCAN	2.206988398	0.00307728
NCR1	2.682998696	0.002128345	HPSE2	2.341521669	0.03457	PEG3	2.52592355	0.00710329	CCor1f5	2.200495244	3.10E-05
GAST	2.675539776	0.020999959	ADAMTS8	2.320057907	0.00719	MYO16	2.51022257	1.64E-05	ADH1B	2.195066528	0.02945002
CETN4P	2.666792752	0.0371100539	PLD5	2.315409111	0.01285	KYNB1	2.5009036	0.00019427	KNH3	2.194414286	2.65E-06
LOC101059948	2.651440569	0.001045381	BCAN	2.283520792	0.00526	UNC5D	2.49116825	0.0063889	LEFTY2	2.188631546	0.00366389
SIGLEC17P	2.636115466	0.029118709	STK32B	2.267200192	0.00626	MUC16	2.49083659	0.00478554	TMEM59L	2.171111076	3.24E-06
LRRC46	2.562091538	0.026033824	LOC100130298	2.257475943	0.02049	DSCR4	2.49020853	0.05402415	FAM135B	2.147689977	0.0005946
BC141952	2.508584977	0.026633284	RPRM	2.254338594	0.03880	C10orf90	2.48512597	0.00055527	CRLF1	2.128669932	0.00274967
KIAA2022	2.499643714	0.013209177	CYP4F22	2.231054897	0.00107	TCEAL2	2.4755231	0.00249308	CMTM5	2.122300929	0.02677471
KF274612	2.481023208	0.023280248	BC062291	2.217284554	0.01233	C2orf40	2.47185514	0.00268219	KCNC2	2.112916521	0.03583952
ALB32163	2.466024503	0.000275446	COL23A1	2.214001182	0.00032	HOTAIR	2.471133479	0.00025374	KNB1	2.111357095	0.00070605
KNH3	2.445352169	0.007857042	BC040901	2.130167212	0.02284	EGF	2.46034714	0.00017737	ADCY5	2.109804586	0.00027355
ABHD1	2.42579731	0.050058955	SLC25A21	2.122326393	0.00040	MGAT5B	2.46019527	0.00015097	MUC5	2.109687118	0.00087332
CBLN2	2.383375531	0.030188307	AGR3	2.077650249	0.00286	SCARA5	2.45647702	0.00017773	ALPPL2	2.107448438	0.01653342
BC068290	2.365398509	0.025128632	GREB1L	2.070130776	0.00702	SLC35F3	2.45607303	0.00071146	CD300LG	2.105907769	0.00054585
TAT	2.344279688	0.002168722	PPP1R36	-2.005576658	0.01689	C3orf15	2.45428124	4.07E-05	DARC	2.104579101	8.98E-05
OTOF	2.342409809	0.001042041	MKRN9P	-2.089792473	0.01668	LGR6	2.43062482	0.00259813	PSD2	2.094292737	9.25E-06
AK311558	2.341525373	0.019807594	TNFSF12	-2.096986869	0.00258	ACSL6	2.42609176	0.00054393	V5IG2	2.074173441	0.0041711
RGS9BP	2.264883564	0.04496302	DNASE1L2	-2.124655199	0.01402	AQP5	2.4126752	0.00141582	SLC13A2	2.073157637	0.00826831
DQ593432	2.246610581	0.041841021	ID1	-2.146826115	0.04456	CSMD3	2.40356486	0.00168836	FIGF	2.069070848	2.42E-05
CYP4F22	2.217945918	0.010289675	BC035726	-2.201031184	0.00289	SLC17A8	2.39853304	0.01252614	HS3ST4	2.063154337	0.01461291
V5IG8	2.186892825	0.022232452	TMEM151B	-2.205214875	0.04913	ADAM27	2.39450391	3.24E-05	GRPR	2.054248392	0.00014734
PACRG	2.150946354	0.004838196	PFKFB1	-2.205971096	0.03231	FABP7	2.38690602	0.0067096	PGM5	2.049250323	3.01E-06
FCRL1	2.097513229	0.002802256	BC033961	-2.211363702	0.03733	MSTN	2.36776749	9.52E-07	GRIK3	2.041626159	0.00064521
MIR29C	2.073467429	0.044759358	LOC100128398	-2.223668441	0.00749	FCAMR	2.35728859	0.00207052	FABP4	2.037073051	0.01629332
KCNE2	2.022137329	0.008502552	LOC100289333	-2.227575745	0.02743	COL11A2	2.3546374	0.00059659	HLF	2.034362803	1.26E-06
EGOT	2.010978885	0.000112788	FCN2	-2.2700934	0.02713	ZNF541	2.35341666	1.39E-06	FAM163B	2.028231216	0.00587802
SFTA1P	-2.075774235	0.035199114	EML5	-2.292035404	0.04741	APL1P	2.35165613	1.01E-05	HTR3E	2.022609093	0.00103446
AK092862	-2.092409032	0.03439314	ABCA17P	-2.302978936	0.00079	PDZD4	2.35058517	0.00011228	CA10	2.020131286	0.04210319
BC069004	-2.095062307	0.009578383	ACVR2B	-2.342205582	0.03647	TF1F	2.34396247	0.04663419	PHF21B	2.016670795	0.00336995
LCE3D	-2.106312802	0.028925308	TPRG1	-2.366380985	0.02611						

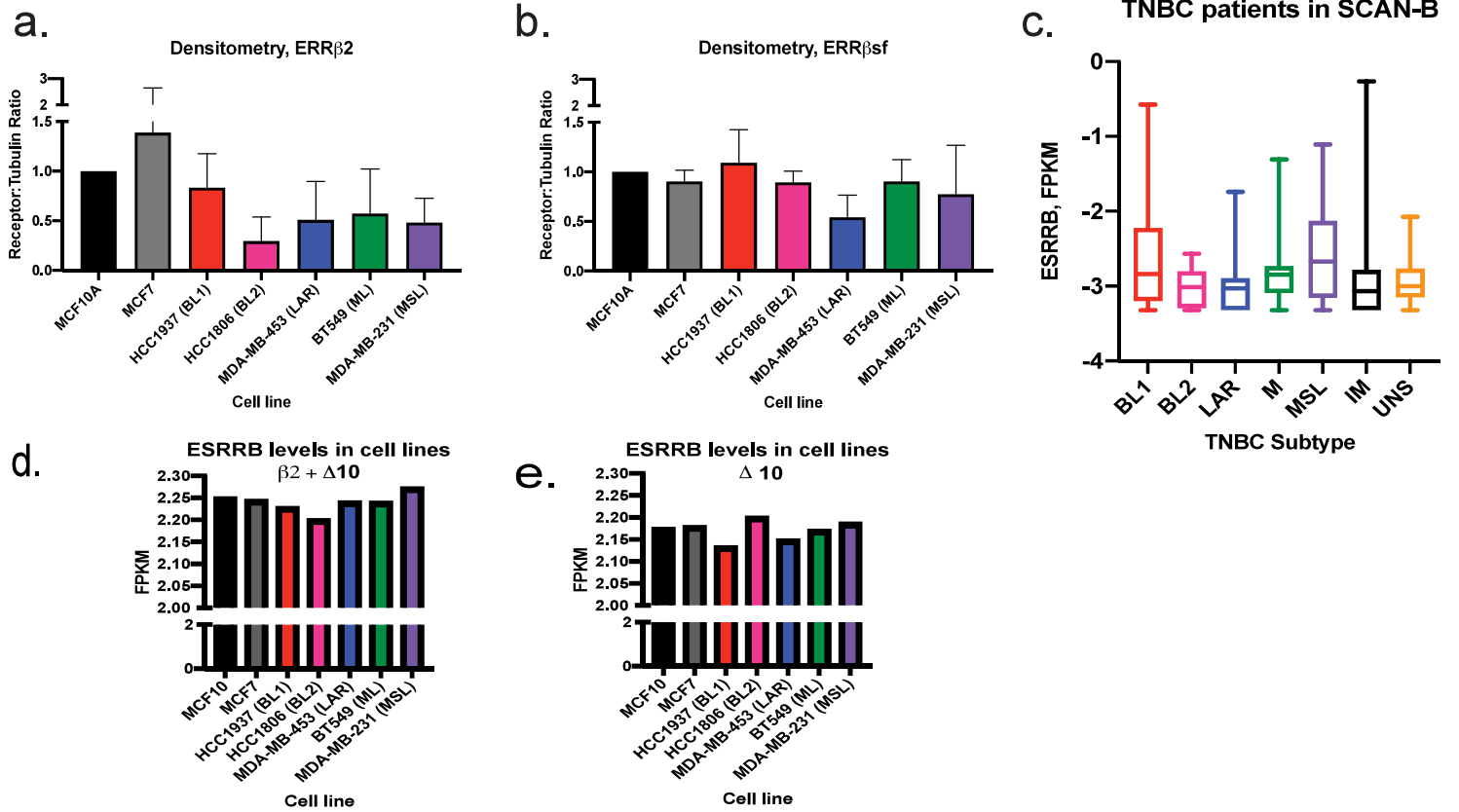
CDX2	-2.401169832	0.006452237
SPRR3	-2.441228869	0.024739367
ANKRD53	-2.453846199	0.001878242
GABRQ	-2.501146314	0.044903436
KRTAP2	-2.548637667	0.033642949
DTHD1	-2.565486595	0.047570892
CEACAM3	-2.723405288	0.025017413
PKD1L2	-2.763740872	0.007404966
ST6GALNAC1	-2.831387322	0.031461658
PCDHA5	-2.848343512	0.036222013
C5orf58	-2.855074592	0.041675064
NEB	-2.866211337	0.015925502
AK055145	-2.934714236	0.008211822
UCN3	-2.979796716	0.049892677
TAS2R20	-2.997311776	0.054397372
LDLRAD1	-3.080739492	0.049392514
ACER1	-3.129316164	0.028042973
VSIG1	-3.213610381	0.011822165
TERT	-3.234428481	0.001813266
LOC101929371	-3.327295945	0.028241422
LINC00704	-3.380455548	0.000121024
KLRC2	-3.418587544	0.035159152
LOC100128885	-3.545123825	0.046663413
SLC5A9	-3.570385843	0.010350715
TPTE2	-3.59066614	0.005005009
KCND3	-3.767100661	0.006359175
LIPK	-3.786606068	0.018155876
SYCP1	-4.013518443	0.000737165
PTENP1	-4.026028206	0.007491011
HTR1B	-4.099249722	0.000673801
BC042048	-4.252234712	0.021526668
FSIP2	-4.330980777	0.006775693
BARHL2	-4.533341133	0.036224616
TRIM61	-4.824186152	0.045914257
PLA2G4D	-4.851159208	0.00494489
PSD2	-5.031777704	0.00264492
MIR1287	-6.807836626	0.001615764
MRV1	-7.471754307	0.001013811
LOC149134	-9.346958153	0.009217588
CTNNA3	-9.503987925	0.001025283

NKPD1	-2.546634759	0.023303
HPD	-2.549056925	0.03248
AK054623	-2.549610161	0.03992
KIAA1045	-2.564911299	0.03499
GQ868703	-2.58909239	0.02489
FGF3	-2.59115296	0.03127
RAB3C	-2.627685687	0.01705
GLIPR1L2	-2.769083613	0.03207
NANOGP1	-2.769676445	0.00240
CTB	-2.77607856	0.03741
ZNF205	-2.779595924	0.00515
AFF2	-2.801298499	0.04650
SPDYE3	-2.845122886	0.02677
DQ570052	-2.861320139	0.02268
AJ004954	-2.928448457	0.00170
HMX2	-2.954219402	0.01644
BC022047	-2.983168874	0.01477
CBLN1	-2.996123794	0.03118
AK055145	-3.11419025	0.01352
RP11	-3.145722571	0.00621
ZNF541	-3.150156428	0.00349
GAS6	-3.20021277	0.04143
BC112312	-3.205005731	0.01768
NLRP7	-3.221972591	0.03801
OPRD1	-3.276302988	0.02109
MLLT10P1	-3.32902795	0.00832
AX746967	-3.411509805	0.01393
USP41	-3.536409211	0.02375
RAB6C	-3.549294489	0.00866
TPTE2	-3.59066614	0.04414
BC015433	-3.600395762	0.03024
KCP	-3.630038375	0.02330
LOC101929371	-3.779123688	0.01185
GBX2	-3.868045023	0.00145
TEKT3	-4.279954838	0.01309
INS	-4.327887578	0.00222
A2M	-4.328395239	0.01081
CEACAM3	-4.329816963	0.04844
KLRC2	-4.543365862	0.02354
UGT2A3	-4.909014752	0.00005
WFD05	-4.950341087	0.00959
SLC10A4	-5.59297842	0.00606
MEGF11	-5.652401261	0.02145
FGF19	-5.79777243	0.01919
C6orf165	-5.930897098	0.00263
TCRBV13S5	-6.383193393	0.00524
PRSS41	-6.931128841	0.00011
CCDC17	-7.019501525	0.02745
NPPFR1	-7.812356257	0.02420

LAMA3	2.26834126	8.19E-06
DKK1	2.26454674	0.003700699
CNTN2	2.26353702	0.0002526
TMEM59L	2.26255183	1.51E-05
KCNH3	2.26151492	8.65E-06
TRIM9	2.25569206	1.30E-05
UGT2B15	2.25447906	0.00578208
MPPED2	2.25353199	8.87E-05
TRPM6	2.25316513	0.00056613
EPHA10	2.25203238	2.55E-05
NALCN	2.22742649	0.00067743
C10orf94	2.22193896	0.03469977
CRLF1	2.21909243	0.00822098
PPP1R1A	2.21105315	0.0057855
AGR3	2.2087265	0.02547382
KGFLP1	2.20705129	4.03E-05
BPIL3	2.19615874	0.03740995
RELN	2.19497413	0.00095133
MYRIP	2.19429425	0.00035178
CNTFR	2.19336756	0.00715889
BCAN	2.18998729	0.01191845
GKN2	2.18738401	0.001227
PAK7	2.18548205	0.00010519
ATP4B	2.18438628	0.00049823
LRRN2	2.17953256	9.22E-05
AGXT	2.1792395	0.04670918
CNTN5	2.16892078	0.0048458
LYPD6	2.16662767	2.91E-05
ZBTB16	2.16609198	0.00034971
SYT13	2.16583311	0.0261753
CD300LG	2.16443805	0.00461307
FLJ12825	2.16374654	2.95E-05
ALX4	2.14540075	0.00790716
JAKMIP1	2.14070524	0.00026679
C4BPA	2.13922351	0.00670343
LHX2	2.13830816	0.00093837
PHF21B	2.13249013	0.00550671
KSR2	2.11876042	0.00040847
ATRNL1	2.11314974	0.0077298
RGS9	2.09671095	0.00244697
ABCA10	2.08971301	4.75E-06
ODZ2	2.08772057	0.00040929
USP44	2.08068645	0.00021401
FRMPD4	2.07884547	0.00282057
MATN2	2.07706237	3.09E-05
CMTM5	2.06633074	0.03014593
TMPRSS5	2.0619219	0.00079965
TFF3	2.06031957	0.02679928
SCUBE2	2.05956914	0.00016425
LOC10019093	2.05765454	3.78E-05
MEGF10	2.05489027	0.00099338
CHRDL2	2.05247932	0.0096111
GPR143	2.04964277	0.00015707
CCDC129	2.0458384	0.00883065
XIST	2.04569904	5.01E-06
ALDH8A1	2.03645167	1.49E-06
SLC22A3	2.02000602	0.00041539
CACNB4	2.00331001	0.00017743
PAK3	2.00313111	0.0002573
PSD2	1.99954317	0.00065213
HTR3E	1.99835795	0.0012338
SOX8	1.99514575	0.01273639
S100P	-1.9814501	0.02631588
KRT4	-2.0020207	0.04588919
LCN2	-2.1019715	0.00842713
CWH43	-2.1232815	0.01570089
ADH7	-2.1415763	0.05358521
ZCCHC16	-2.1756875	0.01463716
KRT79	-2.2267249	0.02585675
PSAPL1	-2.2332604	0.03963001
TDRD1	-2.2892698	0.02376192
SPRR1A	-2.2925772	0.01926323
CA9	-2.4991546	0.00119703
LCE2A	-2.6297223	0.01631921
LY6D	-2.631763	0.00681274
OC90	-2.6996269	0.04516405
VSTM2B	-2.9321935	0.04889516
S100A7	-3.0333387	0.04802538
DPP10	-3.1546539	0.00503713
PRAMEF1	-3.169925	0.00428433
MT4	-3.3219281	0.04564901
C10orf129	-3.6892849	2.89E-06
RETNLB	-3.7004397	0.01522475
SEMG2	-4.2637385	0.02098346
DNAJC5G	-5.1978951	3.22E-05
GJA8	-5.4594316	4.54E-05
FTHL17	-5.9985009	0.00500081
NXF2	-8.4426696	0.00020272

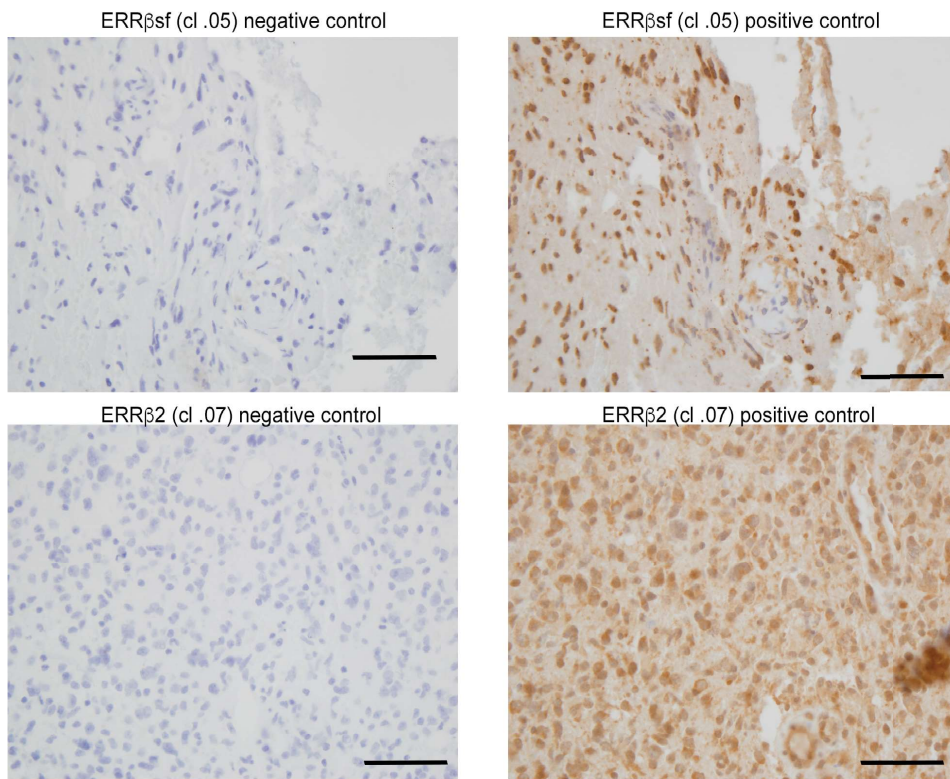
EPS8L3	-2.009043403	0.02682371
FAM25A	-2.031415226	0.04227349
FOXP1	-2.057088689	0.04731655
TNP1	-2.069800224	0.04517713
CSRP3	-2.163951032	0.04043304
S100A8	-2.213164841	0.00232077
PLA2G2F	-2.227270831	0.0184851
MMP1	-2.247894759	0.00145372
CNBD1	-2.299309881	0.00964119
LY6D	-2.32050497	0.00640054
SPANXA2	-2.395383247	0.04964038
C10orf129	-2.395843219	0.01357891
DGAT2L6	-2.464385619	0.03097603
TMEM6C	-2.471679166	0.03811362
KRT79	-2.508123781	0.00695036
DPP10	-2.648165149	0.01644482
RPTN	-2.876242708	0.02371727
CA9	-2.894237811	0.00016249
C17orf77	-2.895891196	0.00960288
HTR3B	-3.272896374	0.05281384
S100A7A	-3.306489796	0.01346404
F9	-3.564641508	0.0383062
MT4	-3.704695468	0.00430409
S100A7	-3.73998807	0.0037761
PTPN20A	-4.279735821	0.03365632
SPINT3	-4.321928095	0.0243849
PMCHL2	-4.33974005	0.04461753
CFHR5	-4.690492758	0.0022544
VSTM2B	-4.857980995	0.02629207
PNLIP	-5.166577675	0.00124963
GJA8	-5.459431619	0.00131355
ISX	-5.873288558	0.0096147
NXF2	-7.633624223	0.00017764

Supplemental Fig. 4



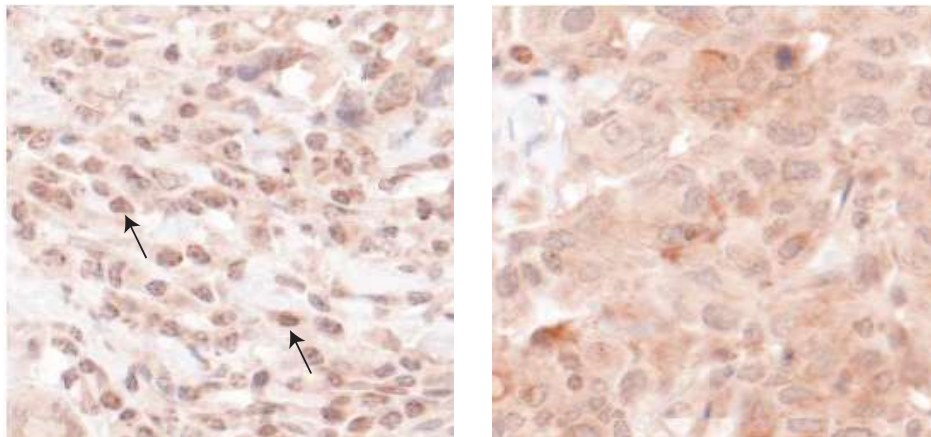
Supplemental Fig. 5

a.

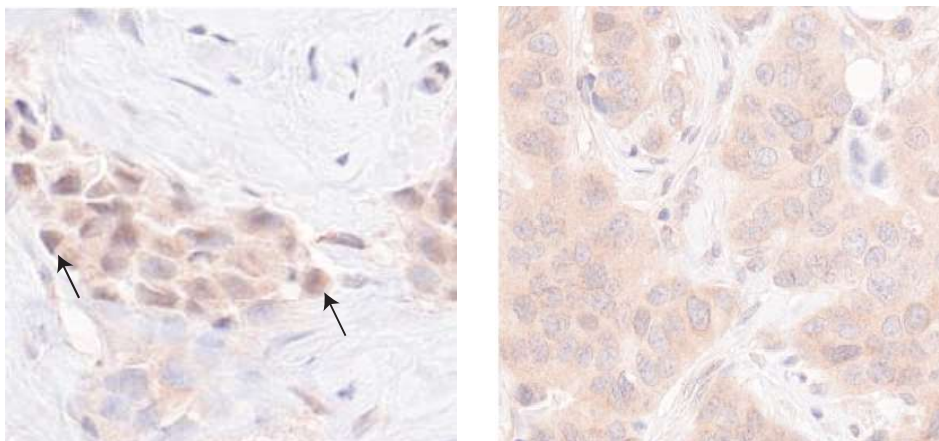


b.

ERR $\beta$ sf (cl .05) Nuclear and cytoplasmic staining      ERR $\beta$ sf (cl .05) Cytoplasmic staining



ERR $\beta$ 2 (cl .07) Nuclear and cytoplasmic staining      ERR $\beta$ 2 (cl .07) Cytoplasmic staining



Supplemental Table 2. ERRβ isoform expression and subcellular localization in TMA

2.1

	ERRβ2	ERRβsf	ERRβ2:ERRβsf
	Mean(sd), median[IQR]		
<b>ER+</b> (n=50)	0.86(0.10), 0.87[0.82, 0.94]	0.66(0.16), 0.68[0.58, 0.77]	1.39(0.52), 1.27[1.11, 0.49]
<b>HER2+</b> (n=50)	0.90(0.13), 0.95[0.87, 0.98]	0.70(0.17), 0.71[0.59, 0.82]	1.36(0.39), 1.28[1.13, 1.45]
<b>TNBC</b> (n=50)	0.85(0.23), 0.94[0.82, 0.98]	0.71(0.23), 0.77[0.65, 0.88]	1.28(0.53), 1.17[1.07, 1.30]
<b>Kruskal-Wallis p-value</b>	0.016*	0.086	0.095

2.2

	ERRβ2		ERRβsf	
	Nuclear	Cytoplasmic	Nuclear	Cytoplasmic
	Mean(sd), median[IQR]		Mean(sd), median[IQR]	
<b>ER+</b> (n=50)	0.65 (0.36), 0.67 [0.37, 1.00]	0.55 (0.40), 0.47 [0.16, 0.96]	0.17 (0.15), 0.13 [0.03, 0.29]	0.11 (0.09), 0.09 [0.04, 0.14]
<b>HER2+</b> (n=50)	0.98 (0.05), 1.00 [0.99, 1.00]	0.03 (0.06), 0.01 [0.00, 0.03]	0.35 (0.25), 0.37 [0.13, 0.46]	0.20 (0.18), 0.16 [0.07, 0.29]
<b>TNBC</b> (n=50)	0.96 (0.17), 1.00 [1.00, 1.00]	0.07 (0.19), 0.01 [0.00, 0.02]	0.33 (0.25), 0.32 [0.11, 0.43]	0.22 (0.20), 0.15 [0.07, 0.31]



Supplemental Table 3. ERRβ isoform expression and clinical features

ERRβ2						ERRβsf						
Receptor Status and Lymph Node Status						Receptor Status and Lymph Node Status						
	Source	DF	Anova SS	Mean Square	F Value	Pr > F	Source	DF	Anova SS	Mean Square	F Value	Pr > F
w/ interaction	Receptor Status	2	15.34	7.67	3.03	0.052	Receptor Status	2	5.63	2.82	2.41	0.094
	Lymph Node Status	1	1.26	1.26	0.5	0.482	Lymph Node Status	1	2.72	2.72	2.32	0.13
	Receptor Status*Lymph Node Status	2	0.8	0.4	0.16	0.856	Receptor Status*Lymph Node Status	2	0.71	0.35	0.3	0.741
w/o interaction	Source	DF	Anova SS	Mean Square	F Value	Pr > F	Source	DF	Anova SS	Mean Square	F Value	Pr > F
	Receptor Status	2	15.34	7.67	3.03	0.052	Receptor Status	2	5.63	2.82	2.41	0.094
	Lymph Node Status	1	1.26	1.26	0.5	0.482	Lymph Node Status	1	2.72	2.72	2.32	0.13
Receptor Status and Race						Receptor Status and Race						
	Source	DF	Anova SS	Mean Square	F Value	Pr > F	Source	DF	Anova SS	Mean Square	F Value	Pr > F
w/ interaction	Receptor Status	2	14.55	7.28	2.88	0.059	Receptor Status	2	4.22	2.11	1.95	0.147
	Race	4	29.45	7.36	2.92	0.024	Race	4	6.93	1.73	1.6	0.179
	Receptor Status*Race	6	19.08	3.18	1.27	0.27	Receptor Status*Race	6	19.46	3.24	2.99	0.009
w/o interaction	Source	DF	Anova SS	Mean Square	F Value	Pr > F						
	Receptor Status	2	14.55	7.28	2.88	0.059						
	Race	4	29.45	7.36	2.92	0.024						
Receptor Status and Age (years)						Receptor Status and Age (years)						
	Source	DF	Type III SS	Mean Square	F Value	Pr > F	Source	DF	Type III SS	Mean Square	F Value	Pr > F
w/ interaction	Receptor Status	2	0.72496893	0.36248447	0.13	0.8753	Receptor Status	2	0.37197751	0.18598875	0.15	0.859
	Age (years)	1	1.09642755	1.09642755	0.4	0.5264	Age (years)	1	0.14527096	0.14527096	0.12	0.7308
	Receptor Status*Age	2	0.26823291	0.13411645	0.05	0.9519	Receptor Status*Age	2	0.14740298	0.07370149	0.06	0.9415
w/o interaction	Source	DF	Type III SS	Mean Square	F Value	Pr > F	Source	DF	Type III SS	Mean Square	F Value	Pr > F
	Receptor Status	2	12.56	6.28	2.34	0.1	Receptor Status	2	3.7	1.85	1.54	0.219
	Age (years)	1	1.13	1.13	0.42	0.518	Age (years)	1	0.18	0.18	0.15	0.699