

**Supplementary Table S1. Clinical data of patients**

Case	Breast cancer cases in the family	Bilateral breast cancer in the family	Ovarian cancer in the family	Age of diagnosis of the proband	Histological type
F1	4			42	Ductal
F2	3			49	Ductal
F3	3			50	Ductal
F4	2			23	Ductal In Situ
F5	3			57	Ductal In Situ
F6	2			20	Ductal In Situ
F7	2	1	1	48	Ductal In Situ
F8	4			69	Ductal In Situ
F9	4			47	Ductal In Situ
F10	3			58	Ductal In Situ
F11	3	1		59	Ductal In Situ
F12	3			68	Ductal In Situ
F13	3			38	Ductal Infiltrating
F14	3		1	49	Ductal Infiltrating
F15	3			38	Ductal Infiltrating
F16	3			55	Ductal Infiltrating
F17	1		1	30	Ductal Infiltrating
F18	3	1	1	40	Ductal Infiltrating
F19	2	1		36	Ductal Infiltrating
F20	2	1		32	Ductal Infiltrating
F21	3			65	Ductal Infiltrating
F22	3			45	Ductal Infiltrating
F23	3			26	Ductal Infiltrating
F24	1			29	Ductal Infiltrating
F25	2		1	48	Ductal Infiltrating
F26	2	1		30	Ductal Infiltrating
F27	5	2		45	Ductal Infiltrating
F28	3	2		37	Ductal Infiltrating
F29	2		1	42	Ductal Infiltrating
F30	3			46	Ductal Infiltrating
F31	3			59	Ductal Infiltrating
F32	5			55	Ductal Infiltrating
F33	2	1		42	Ductal Infiltrating
F34	4			46	Ductal Infiltrating
F35	3			48	Ductal Infiltrating
F36	13			65	Ductal Infiltrating
F37	5	1		55	Ductal Infiltrating
F38	3	2		34	Ductal Infiltrating
F39	4			30	Ductal Infiltrating

F40	4	1	1	37	Ductal Infiltrating
F41	2			21	Ductal Infiltrating
F42	4			50	Ductal Infiltrating
F43	1			29	Ductal Infiltrating
F44	4	2		32	Ductal Infiltrating
F45	3			56	Ductal Infiltrating
F46	5			54	Ductal Infiltrating
F47	3			30	Ductal Infiltrating
F48	2	1	1	48	Ductal Infiltrating
F49	4			55	Ductal Infiltrating
F50	2		4	58	Ductal Infiltrating
F51	5			42	Ductal Infiltrating
F52	4			58	Ductal Infiltrating
F53	2	1		30	Ductal Infiltrating
F54	3			54	Ductal Infiltrating
F55	2			28	Ductal Infiltrating
F56	2	1		34	Ductal Infiltrating
F57	3		1	46	Ductal Infiltrating
F58	3	1		42	Ductal Infiltrating
F59	4			46	Ductal Infiltrating
F60	5		1	53	Ductal Infiltrating
F61	3			24	Ductal Infiltrating
F62	3			36	Ductal Infiltrating
F63	4			47	Ductal Infiltrating
F64	7		1	59	Ductal Infiltrating
F65	6			49	Ductal Infiltrating
F66	3	1		58	Ductal Infiltrating
F67	1			23	Ductal Infiltrating
F68	1			28	Ductal Infiltrating
F69	3			42	Ductal Infiltrating
F70	3	3		35	Ductal Infiltrating
F71	3			60	In Situ
F72	4			27	In Situ
F73	2	1		38	In Situ
F74	3			70	In Situ
F75	7			47	In Situ
F76	2			48	Infiltrating
F77	3			46	Lobulillar
F78	3	1		56	Lobulillar
F79	5	1		53	Lobulillar In Situ
F80	7	2		45	Lobulillar In Situ
F81	3			74	Lobulillar Infiltrating
F82	5			47	Lobulillar Infiltrating

F83	4			49	Lobulillar Infiltrating
F84	5			44	Lobulillar Infiltrating
F85	5			46	Lobulillar Infiltrating
F86	9			50	Lobulillar Infiltrating
F87	1		1	31	Mixed
F88	3			32	Mucinous Infiltrating
F89	3			42	N.I.
F90	5			47	N.I.
F91	3			31	N.I.
F92	3			52	N.I.
F93	4			32	N.I.
F94	4			70	N.I.
F95	4			45	N.I.
F96	3			72	N.I.
F97	4			55	N.I.
F98	3		1	45	N.I.
F99	4	1		62	N.I.
F100	5			64	N.I.

N.I.: not identified.

**Supplementary Table S2.** Allele frequencies of variants found in BC patients

miRNAs	SNP	Allele frequency in BC patients (allele)		MAF <sup>a</sup>	<i>p</i> value <sup>b</sup>
<b>miR-10b</b>	rs1867863 G>T	0.570 (G)	0.430 (T)	0.4660	0.31860
	rs138423463 A>G	0.980 (A)	0.020 (G)	0.0020	0.00100
	n.300 G>T	0.995 (G)	0.005 (T)	ND	
	n.310 C>T	0.995 (C)	0.005 (T)	ND	
<b>miR-21</b>	rs570199250	0.995 (-)	0.005 (T)	0.0003	0.08300
<b>miR-125a</b>	rs12976445 C>T	0.385 (C)	0.615 (T)	0.3470	0.00001
	rs372615282 T>C	0.995 (T)	0.005 (C)	0.0001	0.04200
	rs78758318 G>A	0.985 (G)	0.015 (A)	0.0050	0.07000
	rs11881781 G>C	0.895 (G)	0.105 (C)	0.1280	0.39600
<b>miR-155</b>	rs190708267 C>T	0.990 (C)	0.010 (T)	0.0010	0.01200
<b>miR-195</b>	rs41283391 G>A	0.955 (G)	0.045 (A)	0.0410	0.71730
<b>miR-221</b>	rs191213444 G>T	0.995 (G)	0.005 (T)	0.0010	0.17300
<b>miR-335</b>	rs201306521	0.990 (-)	0.010 (T)	ND	
	rs3807348 G>A	0.495 (G)	0.485 (A)	0.5390	0.22400
	rs376491654 T>C	0.995 (T)	0.005 (C)	0.0003	0.04100
	rs41272366 T>A	0.980 (T)	0.020 (A)	0.0110	0.29100
<b>miR-497</b>	rs755634302	0.995 (-)	0.005 (T)	0.0000	0.01400

(-) without insertion; MAF: Minor allele frequency (reference allele)

<sup>a</sup>MAF reported in the dbSNPs database

<sup>b</sup>Fisher's exact test

Supplementary Table S3. List of primers

Gene	pre-miRNA (pb)	Primer sequence 5'-3'	Ta (°C)	Amplicon (bp)
miR-10b	110	F: TGGCAGAAGAATGAGGGAAC	60	532
		R: ATCCATGCAACCAATTAGGC		
miR-21	72	F: CCAGTTTTCTTGCCGTTCTG	60	596
		R: TTTCAAAACCCACAATGCAG		
miR-125a	86	F: TGCTGTGTCTCTGTGGCTTC	60	600
		R: GAGGCGCTCAGAGTAGGTTG		
miR-145	88	F: AATACACATGAGCCGTGCAG	60	530
		R: GTGCTGAAGTCCCCACATCC		
miR-155	65	F: TGAGCTCCTTCCTTTCAACAG	58	421
		R: GGTTGAACATCCCAGTGACC		
miR-195/miR-497	87	F: TGTTTGCCTTTTAAGGCTTCTC	60	597
		R: TCTCAGCTTCGTGCTGTCTG		
miR-221	110	F: TCCATCCAGCTTTTCATCTC	60	516
		R: AGACCATTGGGTGAAATCG		
miR-222	112	F: TTGTGTGCTGCTGGATCTC	60	374
		R: TGCCCAATAATCTCTCTCAGG		
miR-335	94	F: CCACCATTGGTTCTCTCTCC	58	550
		R: TTTTGTCTTGAGAATCTGTGC		
miR-520c	87	F: TGCAGATGGTCCTTTTAGGG	60	372
		R: CAGCAAGAACGAACTCCATC		

Ta: annealing temperature