

Supplementary Table S1. Sequencing statistics of tumor and matched normal samples of the DCIS and IDC-NSTs subjected to whole-exome or targeted capture massively parallel sequencing.

Case ID	Tissue type (Sample ID)	Sequencing type	Total reads	Mean target coverage (x)	% Target bases 2x	% Target bases 50x	% Target bases 100x
Case 2	DCIS (2DCISA)	Whole exome sequencing	207,743,539	246.17	99.7%	96.7%	88.8%
	DCIS (2DCISB)	Whole exome sequencing	316,094,599	246.05	99.6%	95.9%	87.4%
	IDC-NST (2IDCA)	Whole exome sequencing	252,341,816	257.51	99.7%	93.4%	78.7%
	IDC-NST (2IDCB)	Whole exome sequencing	228,120,350	262.07	99.7%	94.5%	80.8%
Case 3	Normal (2N)	Whole exome sequencing	114,784,419	141.77	99.6%	91.2%	66.4%
	DCIS (3DCIS)	MSK-IMPACT410	20,300,027	524.60	99.4%	98.7%	97.2%
	IDC-NST (3IDC)	MSK-IMPACT410	25,849,783	720.14	99.4%	98.7%	97.8%
Case 4	Normal (3N)	MSK-IMPACT410	21,718,155	697.41	99.4%	98.8%	97.3%
	DCIS (4DCIS)	Whole exome sequencing	195,631,331	259.49	99.8%	96.5%	87.2%
	IDC-NST (4IDC)	Whole exome sequencing	195,002,112	299.06	99.8%	95.0%	82.9%
Case 5	Normal (4N)	Whole exome sequencing	187,450,027	214.61	99.8%	87.2%	65.1%
	DCIS (5DCISA)	Whole exome sequencing	199,437,039	312.88	99.8%	96.9%	88.7%
	DCIS (5DCISB)	Whole exome sequencing	179,488,648	245.05	99.8%	94.6%	81.0%
	IDC-NST (5IDC)	Whole exome sequencing	165,478,058	270.06	99.8%	96.2%	87.1%
Case 6	Normal (5N)	Whole exome sequencing	73,299,225	114.50	99.8%	86.3%	52.7%
	DCIS (6DCIS)	Whole exome sequencing	179,234,825	276.25	99.8%	94.9%	81.4%
	IDC-NST (6IDC)	Whole exome sequencing	170,329,624	249.68	99.8%	94.1%	78.6%
Case 7	Normal (6N)	Whole exome sequencing	81,110,452	125.89	99.8%	78.3%	49.1%
	DCIS (7DCIS)	Whole exome sequencing	172,380,913	244.59	99.8%	96.7%	87.4%
	IDC-NST (7IDC)	Whole exome sequencing	172,569,537	246.69	99.8%	95.9%	84.7%
Case 8	Normal (7N)	Whole exome sequencing	92,367,131	137.34	99.8%	91.1%	65.5%
	DCIS (8DCIS)	Whole exome sequencing	186,273,001	252.06	99.8%	97.1%	89.2%
	IDC-NST (8IDC)	Whole exome sequencing	237,850,268	321.01	99.8%	97.6%	90.8%
Case 9	Normal (8N)	Whole exome sequencing	78,481,551	125.67	99.7%	89.2%	60.4%
	DCIS (9DCIS)	MSK-IMPACT468	19,004,756	643.96	99.5%	98.9%	98.3%
	IDC-NST (9IDC)	MSK-IMPACT468	17,773,892	548.15	99.5%	98.9%	98.2%
Case 10	Normal (9N)	MSK-IMPACT468	11,459,309	401.51	99.4%	98.7%	97.5%
	DCIS (10DCIS)	Whole exome sequencing	216,198,702	235.62	99.7%	96.4%	87.5%
	IDC-NST (10IDC)	Whole exome sequencing	304,125,431	212.23	99.6%	95.4%	84.6%
Case 12	Normal (10N)	Whole exome sequencing	95,944,999	114.01	99.7%	85.5%	51.4%
	DCIS (12DCIS)	Whole exome sequencing	200,781,290	237.08	99.7%	96.3%	87.2%
	IDC-NST (12IDC)	Whole exome sequencing	241,755,460	317.28	99.6%	97.0%	91.8%
Case 13	Normal (12N)	Whole exome sequencing	91,430,780	108.91	99.6%	85.1%	51.0%
	DCIS (13DCIS)	Whole exome sequencing	322,309,642	264.38	99.7%	96.9%	89.0%
	IDC-NST (13IDC)	Whole exome sequencing	200,598,095	300.23	99.8%	96.8%	89.1%
Case 14	Normal (13N)	Whole exome sequencing	105,584,799	111.39	99.6%	85.3%	51.2%
	DCIS (14DCIS)	Whole exome sequencing	133,143,299	159.85	99.8%	94.8%	75.8%
	IDC-NST (14IDC)	Whole exome sequencing	118,090,698	143.46	99.8%	93.6%	70.5%
Case 15	Normal (14N)	Whole exome sequencing	208,195,481	238.87	99.8%	97.9%	90.1%
	DCIS (15DCIS)	Whole exome sequencing	204,388,482	247.44	99.8%	97.9%	90.7%
	IDC-NST (15IDC)	Whole exome sequencing	150,916,271	175.10	99.8%	95.7%	79.1%
Case 16	Normal (15N)	Whole exome sequencing	191,199,284	123.21	99.8%	97.3%	87.6%
	DCIS (16DCIS)	Whole exome sequencing	184,813,810	217.49	99.8%	97.4%	87.0%
	IDC-NST (16IDC)	Whole exome sequencing	229,943,512	257.14	99.8%	98.3%	92.4%
Case 17	Normal (16N)	Whole exome sequencing	151,766,745	187.72	99.8%	95.8%	81.5%
	DCIS (17DCIS)	Whole exome sequencing	177,358,563	171.16	99.7%	93.3%	76.2%
	IDC-NST (17IDC)	Whole exome sequencing	112,201,249	149.14	99.8%	88.5%	63.9%
Case 18	Normal (17N)	Whole exome sequencing	113,427,184	172.74	99.8%	93.9%	76.4%
	DCIS (18DCIS)	Whole exome sequencing	226,914,782	173.83	98.8%	96.9%	77.0%
	IDC-NST (18IDC)	Whole exome sequencing	207,460,217	154.43	98.7%	92.9%	60.8%
Case 19	Normal (18N)	Whole exome sequencing	157,908,826	115.96	98.8%	84.3%	46.6%
	DCIS (19DCIS)	Whole exome sequencing	269,398,612	160.07	98.7%	94.7%	67.1%
	IDC-NST (19IDC)	Whole exome sequencing	246,728,033	182.36	98.7%	96.9%	78.1%
Case 21	Normal (19N)	Whole exome sequencing	119,909,010	108.13	98.7%	88.7%	44.5%
	DCIS (21DCIS)	Whole exome sequencing	216,338,549	185.23	98.7%	96.3%	76.8%
	IDC-NST (21IDC)	Whole exome sequencing	231,729,987	180.14	98.7%	95.3%	71.7%
Case 22	Normal (21N)	Whole exome sequencing	142,013,040	134.33	98.7%	86.0%	56.6%
	DCIS (22DCIS)	Whole exome sequencing	212,988,648	172.28	98.8%	97.2%	81.0%
	IDC-NST (22IDC)	Whole exome sequencing	220,014,188	182.76	98.8%	96.6%	78.9%
Case 23	Normal (22N)	Whole exome sequencing	142,539,465	129.83	98.9%	94.1%	63.5%
	DCIS (23DCIS)	Whole exome sequencing	207,545,037	130.09	98.7%	95.4%	62.3%
	IDC-NST (23IDC)	Whole exome sequencing	208,447,898	148.78	98.8%	96.7%	74.7%
Case 24	Normal (23N)	Whole exome sequencing	119,798,820	110.65	98.7%	84.3%	45.9%
	DCIS (24DCIS)	Whole exome sequencing	237,021,316	149.75	98.6%	91.3%	63.2%
	IDC-NST (24IDC)	Whole exome sequencing	231,720,110	141.13	98.6%	94.3%	68.0%
Case 25	Normal (24N)	Whole exome sequencing	129,436,958	102.78	98.8%	85.0%	41.3%
	DCIS (25DCIS)	Whole exome sequencing	198,806,351	170.04	98.8%	92.4%	68.2%
	IDC-NST (25IDC)	Whole exome sequencing	267,131,787	197.60	98.7%	95.1%	74.8%
Case 26	Normal (25N)	Whole exome sequencing	114,187,645	113.08	98.7%	84.8%	45.8%
	DCIS (26DCIS)	Whole exome sequencing	251,958,064	190.80	98.8%	97.7%	86.5%
	IDC-NST (26IDC)	Whole exome sequencing	214,337,938	165.49	98.8%	96.7%	76.3%
Case 28	Normal (26N)	Whole exome sequencing	134,024,745	132.52	98.8%	95.2%	63.1%
	DCIS (28DCIS)	Whole exome sequencing	248,418,058	198.53	98.8%	95.0%	79.9%
	IDC-NST (28IDC)	Whole exome sequencing	267,854,846	135.50	98.9%	96.3%	68.1%
Case 30	Normal (28N)	Whole exome sequencing	154,861,845	135.58	98.9%	92.3%	60.8%
	DCIS (30DCIS)	Whole exome sequencing	232,467,506	182.28	98.7%	93.2%	66.2%
	IDC-NST (30IDC)	Whole exome sequencing	265,310,671	186.93	98.7%	95.6%	71.6%
Case 31	Normal (30N)	Whole exome sequencing	156,615,573	119.09	98.7%	76.5%	49.2%
	DCIS (31DCIS)	Whole exome sequencing	348,353,376	144.42	98.8%	94.4%	68.6%
	Normal (31N)	Whole exome sequencing	154,431,455	117.08	98.7%	89.0%	53.3%
Case 32	DCIS (32DCIS)	Whole exome sequencing	298,975,973	161.04	98.7%	95.6%	74.9%
	Normal (32N)	Whole exome sequencing	171,835,337	119.44	98.6%	91.2%	54.4%
Case 33	DCIS (33DCIS)	Whole exome sequencing	278,589,079	149.43	98.7%	94.9%	71.9%
	Normal (33N)	Whole exome sequencing	149,292,060	138.42	98.7%	95.0%	69.3%
Case 34	DCIS (34DCIS)	Whole exome sequencing	361,939,268	144.29	98.6%	95.0%	68.3%
	Normal (34N)	Whole exome sequencing	144,339,312	110.27	98.6%	87.8%	47.7%
Case 35	DCIS (35DCIS)	Whole exome sequencing	414,677,110	163.66	98.7%	92.9%	72.2%
	Normal (35N)	Whole exome sequencing	157,673,292	134.24	98.7%	95.2%	66.3%
Case 38	DCIS (38DCIS)	Whole exome sequencing	300,595,924	174.75	98.7%	96.9%	82.2%
	Normal (38N)	Whole exome sequencing	166,009,097	120.46	98.8%	93.1%	56.9%
Case 40	DCIS (40DCIS)	Whole exome sequencing	296,512,648	170.48	98.8%	97.0%	81.5%
	Normal (40N)	Whole exome sequencing	149,350,055	126.73	98.7%	94.2%	63.0%

DCIS, ductal carcinoma in situ; IDC-NST, invasive ductal carcinoma of no special type