

Supplementary Table S1. Dkk1-IRS reduction scores in 68 matched cases

	Core needle biopsy tissues			Mammary carcinoma tissues			Differences in Dkk1 expression	
Case	*Percentage of stained tumour cells	°Staining intensity	^Immuno-reactive score (IRS 1)	*Percentage of stained tumour cells	°Staining intensity	^Immuno-reactive score (IRS 2)	IRS 1-IRS 2	†Reduction percentage (%)
1	4	2	8	4	0	0	8	100
2	4	2	8	4	0	0	8	100
3	4	2	8	0	0	0	8	100
4	4	1	4	0	0	0	4	100
5	4	1	4	4	0	0	4	100
6	4	1	4	0	0	0	4	100
7	4	2	8	4	0	0	8	100
8	3	1	3	4	0	0	3	100
9	4	2	8	4	0	0	8	100
10	4	1	4	4	0	0	4	100
11	4	3	12	2	1	2	10	83
12	4	3	12	2	1	2	10	83
13	4	3	12	2	1	2	10	83
14	3	3	9	2	1	2	7	78
15	4	2	8	2	1	2	6	75
16	4	2	8	2	1	2	6	75
17	4	2	8	2	1	2	6	75
18	4	2	8	2	1	2	6	75
19	4	2	8	2	1	2	6	75
20	4	3	12	3	1	3	9	75
21	4	3	12	3	1	3	9	75
22	4	3	12	4	1	4	8	67
23	3	2	6	2	1	2	4	67
24	4	3	12	4	1	4	8	67
25	4	3	12	4	1	4	8	67
26	4	2	8	3	1	3	5	63
27	4	2	8	4	3	3	5	63
28	4	2	8	3	1	3	5	63
29	4	2	8	3	1	3	5	63
30	4	2	8	3	1	3	5	63
31	4	2	8	3	1	3	5	63
32	3	3	9	4	1	4	5	56
33	3	3	9	2	2	4	5	56
34	3	3	9	4	1	4	5	56
35	4	2	8	4	1	4	4	50
36	4	3	12	3	2	6	6	50
37	4	2	8	4	1	4	4	50
38	4	2	8	4	1	4	4	50
39	3	2	6	3	1	3	3	50
40	4	3	12	3	2	6	6	50

Case	Core needle biopsy tissues			Mammary carcinoma tissues			Differences in Dkk1 expression	
	*Percentage of stained tumour cells	°Staining intensity	ΔImmuno-reactive score (IRS 1)	*Percentage of stained tumour cells	°Staining intensity	ΔImmuno-reactive score (IRS 2)	IRS 1-IRS 2	‡Reduction percentage (%)
41	4	2	8	4	1	4	4	50
42	4	2	8	4	1	4	4	50
43	3	3	9	3	2	6	3	33
44	4	3	12	4	2	8	4	33
45	4	3	12	4	2	8	4	33
46	3	2	6	4	1	4	2	33
47	4	3	12	4	2	8	4	33
48	4	3	12	4	2	8	4	33
49	4	3	12	4	2	8	4	33
50	4	3	12	4	2	8	4	33
51	4	3	12	4	2	8	4	33
52	4	3	12	4	2	8	4	33
53	4	3	12	4	2	8	4	33
54	4	1	4	3	1	3	1	25
55	4	2	8	2	3	6	2	25
56	3	3	9	4	2	8	1	11
57	4	2	8	4	2	8	0	0
58	4	2	8	4	2	8	0	0
59	4	2	8	4	2	8	0	0
60	4	1	4	4	1	4	0	0
61	3	1	3	3	1	3	0	0
62	4	3	12	4	3	12	0	0
63	4	2	8	4	2	8	0	0
64	4	3	12	4	3	12	0	0
65	4	2	8	4	2	8	0	0
66	4	1	4	4	2	8	-4	-100
67	2	1	2	4	1	4	-2	-100
68	3	1	3	4	2	8	-5	-167

*The percentage of stained tumour cells was divided into four categories: <10% of cells (Score 1), 10–50% of cells (Score 2), 51–80% of cells (Score 3), and >80% of cells (Score 4). °The intensity of staining was classified as negative (Score 0), weakly positive (Score 1), moderately positive (Score 2), or strongly positive (Score 3). ΔIRS was calculated by multiplying the percentage of stained tumour cells by the intensity of the staining. IRS values ranged from 0 to 12. Dkk1 expression was graded as either negative (IRS=0–2), weak (IRS=3–4), moderate (IRS=6–8), or strong (IRS=9–12). ‡Dkk1 reduction percentage was calculated using the following formula: Dkk1 reduction percentage = [(Dkk1-IRS in core needle biopsy tissue-Dkk1-IRS in mammary carcinoma tissue)×100] / Dkk1-IRS in core needle biopsy tissue.