Online Resource 1. Expression of biomarkers in ER/PR positive human breast carcinomas

Age	Tumor	Grade	PRA+	PRB+	PRA+PRB+	E-cadherin expression	
	size		%	%	%	In Situ Carcinoma	Invasive Carcinoma
35	1 cm	NA	50.0	21.5	20.0	Normal *	Absent ***
37	1.6 cm	II	60.9	47.9	46.6	Normal	Normal
41	2.2 cm	II	27.1	38.5	26.8	Decreased**	Decreased
42	0.9 cm	II	53.4	41.1	36.4	Normal	Decreased
43	1.6 cm	II	71.1	64.4	62.4	Decreased	Decreased
46	1 cm	I	67.9	66.5	62.6	Decreased	Decreased
46	2.7 cm	II	69.2	67.4	65.7	Normal	Normal
48	2.5 cm	III	57.5	51.5	50.8	Decreased	Absent
48	1.2 cm	I	70.2	59.0	50.6	Normal	Normal
48	1.5 cm	II	63.6	53.8	50.0	Decreased	Absent
52	1 cm	I	61.7	45.1	39.9	Normal	Absent
53	1.8 cm	II	42.4	44.1	39.6	Decreased	Absent
65	0.5 cm	I	68.6	68.1	61.0	Normal	Normal
67	3 cm	Ш	34.1	28.8	26.8	Decreased	Decreased
67	1.6 cm	NA	72.8	51.5	46.9	Decreased	Absent
68	0.7 cm	II	48.5	48.9	47.2	Normal	Absent
83	0.6 cm	I	64.4	63.5	58.9	Normal	Absent
83	1.9 cm	NA	32.9	36.0	29.3	Normal	Normal
84	1 cm	II	67.9	70.3	64.2	Decreased	Decreased
84	4 cm	II	67.0	67.9	58.0	Normal	Normal
96	3 cm	III	43.6	36.8	34.9	Decreased	Decreased
58.9			56.9	51.1	46.6		
18.3			14.0	14.2	13.9		
	35 37 41 42 43 46 48 48 48 52 53 65 67 67 68 83 83 84 84 96	35 1 cm 37 1.6 cm 41 2.2 cm 42 0.9 cm 43 1.6 cm 46 1 cm 46 2.7 cm 48 2.5 cm 48 1.5 cm 52 1 cm 53 1.8 cm 65 0.5 cm 67 3 cm 67 1.6 cm 68 0.7 cm 83 0.6 cm 83 1.9 cm 84 1 cm 84 4 cm 96 3 cm	35	35 1 cm NA 50.0 37 1.6 cm II 60.9 41 2.2 cm II 27.1 42 0.9 cm II 53.4 43 1.6 cm II 71.1 46 1 cm I 67.9 46 2.7 cm II 69.2 48 2.5 cm III 57.5 48 1.2 cm I 70.2 48 1.5 cm II 63.6 52 1 cm I 61.7 53 1.8 cm II 42.4 65 0.5 cm I 68.6 67 3 cm III 34.1 67 1.6 cm NA 72.8 68 0.7 cm II 48.5 83 0.6 cm I 64.4 83 1.9 cm NA 32.9 84 1 cm II 67.0 84 4 cm <td< td=""><td>35 1 cm NA 50.0 21.5 37 1.6 cm II 60.9 47.9 41 2.2 cm II 27.1 38.5 42 0.9 cm II 53.4 41.1 43 1.6 cm II 71.1 64.4 46 1 cm I 67.9 66.5 46 2.7 cm II 69.2 67.4 48 2.5 cm III 57.5 51.5 48 1.2 cm I 70.2 59.0 48 1.5 cm II 63.6 53.8 52 1 cm I 61.7 45.1 53 1.8 cm II 42.4 44.1 65 0.5 cm I 68.6 68.1 67 3 cm III 34.1 28.8 67 1.6 cm NA 72.8 51.5 68 0.7 cm II 48.5 48.9 8</td><td>35 1 cm NA 50.0 21.5 20.0 37 1.6 cm II 60.9 47.9 46.6 41 2.2 cm II 27.1 38.5 26.8 42 0.9 cm II 53.4 41.1 36.4 43 1.6 cm II 71.1 64.4 62.4 46 1 cm I 67.9 66.5 62.6 46 2.7 cm II 69.2 67.4 65.7 48 2.5 cm III 57.5 51.5 50.8 48 1.2 cm I 70.2 59.0 50.6 48 1.5 cm II 63.6 53.8 50.0 52 1 cm I 61.7 45.1 39.9 53 1.8 cm II 42.4 44.1 39.6 65 0.5 cm I 68.6 68.1 61.0 67 3 cm III 34.1 28.8</td><td>35 1 cm NA 50.0 21.5 20.0 Normal * 37 1.6 cm II 60.9 47.9 46.6 Normal 41 2.2 cm II 27.1 38.5 26.8 Decreased*** 42 0.9 cm II 53.4 41.1 36.4 Normal 43 1.6 cm II 71.1 64.4 62.4 Decreased 46 1 cm I 67.9 66.5 62.6 Decreased 46 2.7 cm II 69.2 67.4 65.7 Normal 48 2.5 cm III 57.5 51.5 50.8 Decreased 48 1.2 cm I 70.2 59.0 50.6 Normal 48 1.5 cm II 63.6 53.8 50.0 Decreased 52 1 cm I 61.7 45.1 39.9 Normal 53 1.8 cm II 42.4 44.1</td></td<>	35 1 cm NA 50.0 21.5 37 1.6 cm II 60.9 47.9 41 2.2 cm II 27.1 38.5 42 0.9 cm II 53.4 41.1 43 1.6 cm II 71.1 64.4 46 1 cm I 67.9 66.5 46 2.7 cm II 69.2 67.4 48 2.5 cm III 57.5 51.5 48 1.2 cm I 70.2 59.0 48 1.5 cm II 63.6 53.8 52 1 cm I 61.7 45.1 53 1.8 cm II 42.4 44.1 65 0.5 cm I 68.6 68.1 67 3 cm III 34.1 28.8 67 1.6 cm NA 72.8 51.5 68 0.7 cm II 48.5 48.9 8	35 1 cm NA 50.0 21.5 20.0 37 1.6 cm II 60.9 47.9 46.6 41 2.2 cm II 27.1 38.5 26.8 42 0.9 cm II 53.4 41.1 36.4 43 1.6 cm II 71.1 64.4 62.4 46 1 cm I 67.9 66.5 62.6 46 2.7 cm II 69.2 67.4 65.7 48 2.5 cm III 57.5 51.5 50.8 48 1.2 cm I 70.2 59.0 50.6 48 1.5 cm II 63.6 53.8 50.0 52 1 cm I 61.7 45.1 39.9 53 1.8 cm II 42.4 44.1 39.6 65 0.5 cm I 68.6 68.1 61.0 67 3 cm III 34.1 28.8	35 1 cm NA 50.0 21.5 20.0 Normal * 37 1.6 cm II 60.9 47.9 46.6 Normal 41 2.2 cm II 27.1 38.5 26.8 Decreased*** 42 0.9 cm II 53.4 41.1 36.4 Normal 43 1.6 cm II 71.1 64.4 62.4 Decreased 46 1 cm I 67.9 66.5 62.6 Decreased 46 2.7 cm II 69.2 67.4 65.7 Normal 48 2.5 cm III 57.5 51.5 50.8 Decreased 48 1.2 cm I 70.2 59.0 50.6 Normal 48 1.5 cm II 63.6 53.8 50.0 Decreased 52 1 cm I 61.7 45.1 39.9 Normal 53 1.8 cm II 42.4 44.1

Numbers in the table indicate the percent of PRA-positive (PRA+), PRB-positive (PRB+), and double positive PRA+PRB+ tumor cells in invasive carcinoma with at least 1000 tumor cell counted per sample.

NA - tumor grade was not presented in the pathology report

^{*} Normal - E-cadherin expression in carcinoma is similar to E-cadherin expression in normal mammary tissue adjacent to the tumor

^{**} Decreased - E-cadherin expression in carcinoma is decreased when compared with the normal mammary tissue adjacent to the tumor

^{***} Absent - E-cadherin expression is lost in the majority of cells in invasive carcinoma