

Supplementary Table S2. Significant clinical variables associated with combined *TMPRSS1-TMPRSS3* mRNA and protein expression

Clinical variable	Low	Others, Ref.	<i>P</i> ^b	OR (95 % CI) ^c
Combination of mRNA expression^a (%)				
Tumor grade			0.00018^b	
I, II	15 (20.5)	58 (79.5)		Ref.
III	26 (54.2)	22 (45.8)	0.0002	4.570 (2.047 -10.200)
ER status			0.001^b	
Negative	22 (55.0)	18 (45.0)	0.001	3.988 (1.779 - 8.944)
Positive	19 (23.5)	62 (76.5)		Ref.
PR status			0.020^b	
Negative	25 (45.5)	30 (54.5)	0.015	2.604 (1.201 -5.645)
Positive	16 (24.2)	50 (75.8)		Ref.
HER2 status			0.027^b	
Negative	27 (27.6)	71 (72.4)		Ref.
Positive	10 (55.6)	8 (44.4)	0.024	3.287 (1.174 - 9.206)
Combination of protein expression^a (%)				
Tumor grade			0.0000006^b	
I	10 (11.5)	77 (88.5)		Ref.
II	43 (26.7)	118 (73.3)	0.007	2.806 (1.331-5.914)
III	48 (45.7)	57 (54.3)	0.0000015	6.484 (3.025-13.900)
Tumor stage			0.0037^b	
I	22 (18.3)	98 (81.7)		Ref.
II	61 (33.2)	123 (66.8)	0.005	2.209 (1.268-3.848)
III, IV	18 (40.0)	27 (60.0)	0.005	2.970 (1.396-6.316)
Tumor size			0.004^b	
T1	37 (21.5)	135 (78.5)		Ref.
T2	60 (37.5)	100 (62.5)	0.002	2.189 (1.349-3.554)
T3, T4	12 (35.3)	22 (64.7)	0.088	1.990 (0.902-4.393)
Nodal status			0.0089^b	
Negative	45 (23.0)	151 (77.0)		Ref.
Positive	56 (36.1)	99 (63.9)	0.007	1.898 (1.190-3.028)
PR status			0.031^b	
Negative	50 (35.7)	90 (64.3)	0.026	1.699 (1.066-2.708)
Positive	52 (24.6)	159 (75.4)		Ref.
Histological type			0.012^b	
Ductal	76 (32.2)	160 (67.8)	0.007	2.850 (1.337-6.074)
Lobular	24 (33.3)	48 (66.7)	0.012	3.000 (1.271-7.083)
Other malignant	9 (14.3)	54 (85.7)		Ref.

Ref., reference category in the logistic regression analysis

^aThe 'combined low group' included all cases with low expression levels of both genes.

^b*P* value assessed by Fisher's exact test. Other *P* values from the logistic regression analysis.

^cOR and 95% CI values for association from the logistic regression analysis.