

Table S4a Multivariate Cox Regression				
Variable	Subset	Hazard ratio (95% CI)	p-value	LR_{χ²}
RB1(N)	↑/↓	1.68 (0.87 - 3.24)	0.122	18.3
Stage	III–IV/I–II	2.13 (0.86 - 5.27)	0.104	
Lymph node metastasis	yes/no	1.86 (0.78 - 4.47)	0.163	
(CSNK1E(C), SHC1(N))	(↓, ↓)/otherwise	8.89 (3.22 - 24.55)	0.000	25.6
Stage	III–IV/I–II	2.28 (0.91 - 5.76)	0.080	
Lymph node metastasis	yes/no	1.96 (0.8 - 4.85)	0.143	
(CSNK1E(C), RB1(N))	(↓, ↑)/otherwise	2.13 (1.01 - 4.53)	0.048	18.6
Stage	III–IV/I–II	2.01 (0.81 - 4.99)	0.133	
Lymph node metastasis	yes/no	1.90 (0.79 - 4.54)	0.151	
(BRCA1(N), SHC1(N))	(↓, ↓)/otherwise	2.7 (1.04 - 7.01)	0.042	18.3
Stage	III–IV/I–II	2.45 (0.98 - 6.15)	0.056	
Lymph node metastasis	yes/no	1.63 (0.67 - 3.98)	0.286	

Table S4b Multivariate Cox Regression on combinations of two significant markers				
Variable		Hazard ratio (95% CI)	p-value	LR_{χ²}
CSNK1E(C)-SHC1(N) (↓, ↓) and FLNA(C)-KRAS(C) (↑, ↑) ^{c*}		12.76 (3.95 - 41.21)	0.000	23.12
Stage		1.62 (0.59 - 4.44)	0.348	
Lymph node metastasis		2.64 (0.96 - 7.28)	0.060	
BRCA1(N)-SHC1(N) (↓, ↓) and FLNA(C)-KRAS(C) (↑, ↑) ^c		2.91 (1.1 - 7.68)	0.031	16.08
Stage		1.99 (0.75 - 5.32)	0.169	
Lymph node metastasis		1.81 (0.7 - 4.69)	0.223	

*The symbol (↑, ↑)^c denotes the complementary set of (↑, ↑), namely (↓, ↑), (↑, ↓) and (↓, ↓), in which FLNA(C)-KRAS(C) is in the same direction (poor OS) as that of BRCA1(N)-SHC1(N).