Supplementary 2. The effect of soy compounds on breast cancer development dependent on the performance of different receptors tested by association rules.[a]

Rule no.	LHS [c]	RHS	Support [b]	Confidence [b]	Lift
1	Phytoestrogen, GEN	Positive	32.5%	76.2%	0.986
2	Phytoestrogen, DAI	Negative	5.4%	45.0%	1.978
3	Phytoestrogen, DAI	Positive	6.6%	55.0%	0.712
4	Phytoestrogen, EQ	Positive	5.2%	70.3%	0.910
5	Phytoestrogen, GLL	Positive	2.6%	86.7%	1.122
6	Phytoestrogen, MIF	Positive	14.6%	85.9%	1.112
7	Protein/Peptides, BBI	Positive	4.4%	100.0%	1.295
8	Protein/Peptides, LUN	Positive	3.0%	100.0%	1.295
9	Protein/Peptides, MSP	Positive	4.8%	92.3%	1.195
10	ER+, Phytoestrogen	Positive	35.1%	66.2%	0.857
11	ER-, Phytoestrogen	Positive	23.0%	91.3%	1.182
12	PR+, Phytoestrogen	Positive	29.5%	62.7%	0.812
13	PR-, Phytoestrogen	Positive	20.4%	90.3%	1.169
14	HER2+, Phytoestrogen	Positive	3.2%	84.2%	1.090
15	HER2-, Phytoestrogen	Positive	42.9%	69.4%	0.898
16	ER+, Protein/Peptides	Positive	7.2%	94.7%	1.226
17	ER-, Protein/Peptides	Positive	4.6%	100.0%	1.295
18	PR+, Protein/Peptides	Positive	6.0%	93.8%	1.214
19	PR-, Protein/Peptides	Positive	3.6%	100.0%	1.295
20	HER2-, Protein/Peptides	Positive	8.8%	100.0%	1.295
21	ER+, PR+, DAI	Negative	4.2%	56.8%	2.494
22	ER+,HER2-, DAI	Negative	4.2%	56.8%	2.494
23	PR+, HER2-, DAI	Negative	4.2%	56.8%	2.494
24	ER+, GEN	Positive	18.6%	68.4%	0.885
25	PR+, GEN	Positive	16.6%	66.4%	0.860
26	ER-, GEN	Positive	13.0%	95.6%	1.237
27	PR-, GEN	Positive	11.8%	95.2%	1.232
28	HER2+, GEN	Positive	2.4%	92.3%	1.195
29	HER2-, GEN	Positive	26.5%	75.6%	0.978
30	ER+, DAI	Negative	4.2%	51.2%	2.251
31	PR+, DAI	Negative	4.2%	53.8%	2.366
32	ER+, DAI	Positive	4.0%	48.8%	0.631
33	PR+, DAI	Positive	3.6%	46.2%	0.597

34	HER2-, DAI	Negative	4.8%	50.0%	2.197
35	HER2-, DAI	Positive	4.8%	50.0%	0.647
36	ER+, EQ	Positive	3.2%	64.0%	0.829
37	PR+, EQ	Positive	2.4%	57.1%	0.740
38	HER2-, EQ	Positive	3.6%	62.1%	0.804
39	ER+, GLL	Positive	2.2%	84.6%	1.095
40	PR+, GLL	Positive	2.2%	84.6%	1.095
41	HER2-, GLL	Positive	2.4%	85.7%	1.110
42	ER+, MIF	Positive	6.0%	81.1%	1.050
43	PR+, MIF	Positive	3.6%	75.0%	0.971
44	ER-, MIF	Positive	4.0%	90.9%	1.177
45	PR-, MIF	Positive	2.6%	86.7%	1.122
46	HER2-, MIF	Positive	3.2%	69.6%	0.901
47	ER+, BBI	Positive	3.0%	100.0%	1.295
48	PR+, BBI	Positive	3.0%	100.0%	1.295
49	HER2-, BBI	Positive	4.0%	100.0%	1.295
50	HER2-, LUN	Positive	3.0%	100.0%	1.295
51	ER+, MSP	Positive	2.4%	85.7%	1.110
52	ER+, PR+	Positive	33.9%	65.4%	0.846
53	ER-, PR-	Positive	23.4%	91.4%	1.183
54	PR+, HER2-	Positive	31.3%	64.6%	0.836
55	ER+, HER2-	Positive	31.3%	64.6%	0.836
56	PR-, HER2-	Positive	20.4%	91.9%	1.190
57	ER-, HER2-	Positive	20.4%	91.9%	1.190

[a.] Association rules were identified by using the R package ”arules”. Samples included all the datasets.

[b.] The minimum support value was 0.02 (2 %) and the minimum confidence value was 0.4 (40 %). A total of 57 rules were obtained as the outcome of this assay (as shown in Supplementary 2). The data of life value >1.2 and < 0.8 are shown in this table.

[c.] ER: Estrogen receptor, PR: Progesterone receptor, HER2: Human Epidermal Growth Factor Receptor 2, GEN: Genistein, DAI: Daidzein, MIF: Mix isoflavone, MSF: Mix soy protein, GLL: Glyceollins, EQ: Equol, BBI: Bowman-Birk protease inhibitor, LUN: Lunasin.