**Table S1.** The comparisons of DYRK1B expression with different tissues

| Variables | TNBC | | ER+ | | PR+ | | HER2+ | | p-value[*] |
|---|---|---|---|---|---|---|---|---|---|
| | Mean±SD | Median | Mean±SD | Median | Mean±SD | Median | Mean±SD | Median | |
| | (n=178) | | (n=809) | | (n=699) | | (n=166) | | |
| | 8.59±0.88[abc] | 8.5961 | 9.20±0.63[ad] | 9.2223 | 9.22±0.63[be] | 9.2337 | 8.91±0.92[cde] | 8.8772 | <0.001 |

*Abbreviations: TNBC, triple-negative breast carcinoma ; SD, standard deviation.*
[*]*p values were estimated by Kruskal-Wallis one-way ANOVA test.*

[a]$p<0.001$; [b]$p<0.001$; [c]$p=0.0014$; [d]$p<0.001$; [e]$p<0.001$.
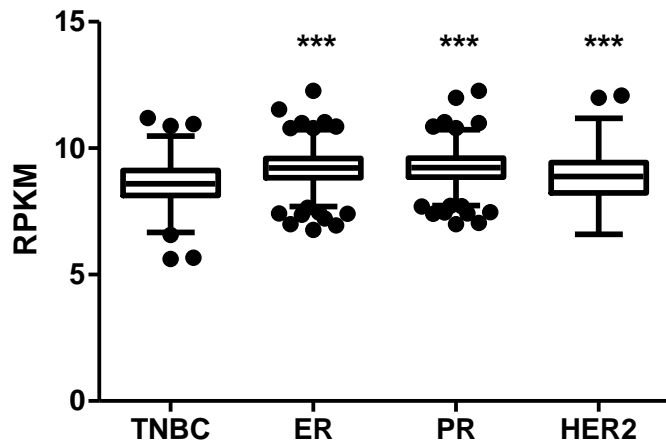


TNBC vs. ER+, p<0.001; TNBC vs. PR+, p<0.001;TNBC vs. HER2+, p=0.00144;

**Table S2.** The DYRK1B expression in tumor tissues and adjacent normal tissues in the three different subtypes of breast cancer

| Variables | Tumor adjacent normal | | Tumor | | Melastatic | | p-value |
|---|---|---|---|---|---|---|---|
| | Mean±SD | Median | Mean±SD | Median | Mean±SD | Median | |
| | (n=13) | | (n=178) | | (n=1) | | |
| TNBC | 8.67±0.46 | 8.5871 | 8.59±0.88 | 8.5961 | 8.7507 | | 0.609[*] |
| | (n=79) | | (n=809) | | (n=6) | | |
| ER (+) | 8.64±0.55[ab] | 8.6020 | 9.20±0.63[a] | 9.2223 | 9.18±0.86[b] | 8.9995 | **<0.001[§]** |
| | (n=69) | | (n=699) | | (n=6) | | |
| PR (+) | 8.62±0.61[cd] | 8.6016 | 9.22±0.63[c] | 9.2337 | 9.18±0.86[d] | 8.9995 | **<0.001[§]** |
| | (n=21) | | (n=166) | | (n=1) | | |
| HER2 (+) | 8.62±0.34 | 8.6360 | 8.91±0.92 | 8.8772 | 10.7909 | | **0.005[*]** |

*Abbreviations: TNBC, triple-negative breast carcinoma ; SD, standard deviation.*
[*]*p values were estimated by Student's t-test.*
[§]*p values were estimated by Kruskal-Wallis one-way ANOVA test.*

[a]p<0.001; [b]p=0.028; [c]p<0.001; [d]p=0.029.

**Table S3.** Impact of DYRK1B expression levels on overall survival by the different demographic and clinicopathologic factors with TNBC

| Variable | DYRK1B | No. (%) | CHR (95% CI) | *p value** | AHR (95% CI) | *p value*[†] |
|---|---|---|---|---|---|---|
| **Sex** | | | | | | |
| Female | Low | 66 (53.7) | 1 | | 1 | |
| | High | 57 (46.3) | **3.22 (1.16-8.95)** | **0.025** | 2.39 (0.84-6.80) | 0.104[a] |
| **Age, yrs** | | | | | | |
| ≦50 | Low | 21 (46.7) | 1 | | 1 | |
| | High | 24 (53.3) | 3.18 (0.66-15.34) | 0.149 | 2.73 (0.54-13.76) | 0.225[a] |
| >50 | Low | 45 (57.7) | 1 | | 1 | |
| | High | 33 (42.3) | 3.09 (0.79-12.07) | 0.105 | 2.65 (0.66-10.70) | 0.171[a] |
| **AJCC stage** | | | | | | |
| I, II | Low | 56 (57.1) | 1 | | - | |
| | High | 42 (42.9) | 2.75 (0.71-10.67) | 0.216 | - | - |
| III, IV | Low | 9 (40.9) | 1 | | - | |
| | High | 13 (59.1) | 2.26 (0.47-10.94) | 0.309 | - | - |
| **T classification** | | | | | | |
| T1, T2 | Low | 61 (56.5) | 1 | | 1 | |
| | High | 47 (43.5) | 2.14 (0.71-6.40) | 0.174 | 1.62 (0.50-5.20) | 0.421[d] |
| T3, T4 | Low | 4 (28.6) | 1 | | 1 | |
| | High | 10 (71.4) | 33.40 (0.01-143737.67) | 0.411 | 41.79 (0.01-248111.88) | 0.400[d] |
| **N classification** | | | | | | |
| N0 | Low | 49 (62.8) | 1 | | 1 | |
| | High | 29 (37.2) | 4.35 (0.79-24.70) | 0.092 | 4.22 (0.77-23.19) | 0.098[e] |
| N1, N2, N3 | Low | 17 (37.8) | 1 | | 1 | |
| | High | 28 (62.2) | 1.60 (0.43-5.93) | 0.483 | 1.53 (0.41-5.68) | 0.524[e] |
| **Postoperative RT** | | | | | | |
| No | Low | 26 (52.0) | 1 | | 1 | |
| | High | 24 (48.0) | **10.30 (1.26-83.96)** | **0.029** | 6.02 (0.67-53.96) | 0.109[a] |
| Yes | Low | 35 (57.4) | 1 | | 1 | |
| | High | 26 (42.6) | 3.11 (0.28-34.45) | 0.355 | 1.50 (0.13-16.84) | 0.745[a] |

Abbreviations: TNBC, Triple-negative breast cancer; CHR, crude hazard ratio; CI, confidence interval; AHR, adjusted hazard ratio; AJCC, American Joint Committee on Cancer; RT, radiotherapy. *p values were estimated by Cox's regression. [†]p values were estimated by multivariate Cox's regression. [a]Adjusted for AJCC pathological stage (stage III+ IV vs stage I+II). [d]Adjusted for N classification (N1, N2, N3 vs N0). [e]Adjusted for T classification (T3+ T4 vs T1+T2).