**Supplementary Table 1.** **Association of clinicopathologic characteristics with the IRGs and prognostic signature in TCGA cohort**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene** | **Age** | |  | **Gender** | |  | **Tumor grade** | |  | **Tumor stage** | |  | **Tumor stage of TNM** | |  | **Node stage of TNM** | |  | **Metastasis stage of TNM** | |
| ***t*** | ***p*** | ***t*** | ***p*** | ***t*** | ***p*** | ***t*** | ***p*** | ***t*** | ***p*** | ***t*** | ***p*** | ***t*** | ***p*** |
| RBP2 | 0.929 | 0.354 |  | 1.131 | 0.262 |  | 8.36 | 0.039 |  | 5.934 | 0.115 |  | 2.504 | 0.474 |  | 0.724 | 0.486 |  | 2.034 | 0.043 |
| MAPT | -0.696 | 0.487 |  | 1.184 | 0.239 |  | 1.023 | 0.796 |  | 10.709 | 0.013 |  | 6.241 | 0.1 |  | 9.634 | 1.07E-17 |  | 1.769 | 0.183 |
| BIRC5 | 2.644 | 0.009 |  | -0.855 | 0.393 |  | 11.509 | 0.009 |  | 6.491 | 0.09 |  | 15.6 | 0.001 |  | -0.444 | 0.698 |  | 4.946 | 7.73E-04 |
| ROBO1 | -0.957 | 0.34 |  | -0.349 | 0.728 |  | 11.443 | 0.01 |  | 7.895 | 0.048 |  | 4.796 | 0.187 |  | -1.039 | 0.407 |  | -0.551 | 0.637 |
| FIGNL2 | 1.66 | 0.098 |  | 1.463 | 0.147 |  | 7.339 | 0.062 |  | 9.955 | 0.019 |  | 2.065 | 0.559 |  | -0.732 | 0.54 |  | 4.081 | 0.01 |
| IL17D | 0.833 | 0.406 |  | 1.463 | 0.148 |  | 12.565 | 0.006 |  | 4.585 | 0.205 |  | 1.001 | 0.801 |  | 3.86 | 1.64E-04 |  | 1.209 | 0.297 |
| SPP1 | -1.884 | 0.061 |  | -1.317 | 0.19 |  | 5.642 | 0.13 |  | 7.103 | 0.069 |  | 17.649 | 5.20E-04 |  | 1.32 | 0.28 |  | -0.204 | 0.855 |
| STC2 | -1.175 | 0.243 |  | -0.455 | 0.65 |  | 0.832 | 0.842 |  | 5.01 | 0.171 |  | 11.262 | 0.01 |  | 0.473 | 0.67 |  | -0.565 | 0.626 |
| Risk score | 1.331 | 0.185 |  | 1.378 | 0.171 |  | 13.863 | 0.003 |  | -1.467 | 0.184 |  | 18.289 | 3.83E-04 |  | -0.166 | 0.883 |  | 2.052 | 0.144 |

*t*, *t*-value of Student’s test; *p*, *p*-value of Student’s test.