**Supplementary Table S4. The performance of three methods to select features for Cox model construction**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Algorithm** | **gene** | **coef** | **exp****(coef)** | **se****(coef)** | **z** | **Pr(>|z|)** | **C-index** | **log-rank test** | **Likelihood ratio test** |
| MMPC | B3GAT3 | 0.3979  | 1.4887  | 0.1810  | 2.1981  | 2.7945E-02 | 0.732 | 1.00E-14 | 7.00E-15 |
| EEF1D | 0.7153  | 2.0449  | 0.1808  | 3.9557  | 7.6325E-05 |
| NRP1 | 0.5240  | 1.6889  | 0.1783  | 2.9398  | 3.2845E-03 |
| PLCB1 | 0.5662  | 1.7616  | 0.1825  | 3.1021  | 1.9213E-03 |
| FASLG | -0.4009  | 0.6697  | 0.1819  | -2.2042  | 2.7513E-02 |
| IL2RB | -0.6588  | 0.5174  | 0.1851  | -3.5591  | 3.7217E-04 |
| SLC22A7 | -0.6750  | 0.5091  | 0.1843  | -3.6623  | 2.4999E-04 |
| STX11 | -0.3968  | 0.6724  | 0.1783  | -2.2257  | 2.6037E-02 |
| Lasso | AMD1 | 0.0401  | 1.0409  | 0.2645  | 0.1515  | 8.7955E-01 | 0.675 | 0.02 | 0.02 |
| CCT2 | 0.1505  | 1.1624  | 0.2860  | 0.5263  | 5.9866E-01 |
| CDC25B | 0.5210  | 1.6836  | 0.2732  | 1.9067  | 5.6566E-02 |
| GNAZ | 0.4645  | 1.5913  | 0.2502  | 1.8567  | 6.3357E-02 |
| MAPK13 | 0.0796  | 1.0829  | 0.2597  | 0.3066  | 7.5912E-01 |
| PHLDA2 | 0.0636  | 1.0657  | 0.2499  | 0.2544  | 7.9918E-01 |
| PRC1 | 0.1575  | 1.1706  | 0.2506  | 0.6286  | 5.2960E-01 |
| RPL8 | 0.1512  | 1.1633  | 0.2512  | 0.6020  | 5.4716E-01 |
| SLC7A1 | 0.0239  | 1.0242  | 0.2605  | 0.0919  | 9.2675E-01 |
| SSB | 0.2687  | 1.3082  | 0.2867  | 0.9372  | 3.4868E-01 |
| TKT | 0.2153  | 1.2402  | 0.2733  | 0.7877  | 4.3085E-01 |
| TOMM20 | 0.3887  | 1.4751  | 0.2822  | 1.3777  | 1.6830E-01 |
| VIL1 | 0.1214  | 1.1291  | 0.2639  | 0.4601  | 6.4544E-01 |
| stepwise regression | CDC25B | 0.6083  | 1.8374  | 0.2521  | 2.4133  | 1.5810E-02 | 0.652 | 2.00E-04 | 1.00E-04 |
| GNAZ | 0.5345  | 1.7065  | 0.2316  | 2.3075  | 2.1027E-02 |
| SSB | 0.4814  | 1.6184  | 0.2473  | 1.9469  | 5.1546E-02 |
| TOMM20 | 0.5378  | 1.7122  | 0.2654  | 2.0260  | 4.2761E-02 |