Supplementary Table 1: Expression data and patient features.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| sample | age | WBC | immuno | hyperd | t(12;21) | relapse | death | DFS | OS | uc.112 | uc.122 | uc.160 | uc.262 |
| 1 | 4.04 | 13,400 | 1 | 1 | 1 | 1 | 1 | 7.340 | 7.340 | 0.976 | 1.613 | 2.979 | 0.108 |
| 2 | 1.72 | 44,700 | 1 | 1 | 1 | 1 | 1 | 9.049 | 9.049 | 0.591 | 2.621 | 1.758 | 0.141 |
| 3 | 16.01 | 27,900 | 1 | 1 | 1 | 1 | 1 | 11.630 | 11.630 | 0.191 | 0.596 | 1.710 | 0.142 |
| 4 | 17.85 | 50,000 | 1 | 1 | 1 | 1 | 1 | 0.129 | 0.129 | 0.331 | 2.924 | 7.278 | 0.147 |
| 5 | 4.65 | 4,900 | 1 | 1 | 1 | 1 | 1 | 8.063 | 8.063 | 0.412 | 3.259 | 5.071 | 0.170 |
| 6 | 8.73 | 57,600 | 1 | 1 | 1 | 2 | 1 | 7.565 | 8.528 | 0.535 | 3.693 | 3.069 | 0.244 |
| 7 | 3.11 | 76,900 | 1 | 2 | 1 | 1 | 1 | 7.313 | 7.313 | 1.433 | 3.129 | 4.687 | 0.271 |
| 8 | 13.74 | 52,900 | 1 | 1 | 1 | 2 | 1 | 2.825 | 8.482 | 0.135 | 1.338 | 1.500 | 0.287 |
| 9 | 1.64 | 52,000 | 1 | 2 | 1 | 1 | 2 | 0.433 | 0.433 | 0.452 | 2.384 | 1.045 | 0.327 |
| 10 | 11.44 | 232,000 | 1 | 1 | 1 | 1 | 2 | 0.038 | 0.038 | 0.054 | 0.689 | 1.297 | 0.423 |
| 11 | 2.86 | 57,000 | 1 | 1 | 2 | 1 | 1 | 7.754 | 7.754 | 0.609 | 2.388 | 3.413 | 0.492 |
| 12 | 4.87 | 172,000 | 1 | 1 | 2 | 2 | 2 | 2.056 | 9.229 | 0.159 | 2.455 | 1.211 | 0.581 |
| 13 | 8.40 | 7,000 | 1 | 2 | 1 | 1 | 1 | 7.619 | 7.619 | 0.892 | 2.120 | 11.412 | 0.645 |
| 14 | 2.57 | 37,900 | 1 | 1 | 2 | 1 | 1 | 7.053 | 7.053 | 0.060 | 1.851 | 1.708 | 0.667 |
| 15 | 1.84 | 10,400 | 1 | 2 | 1 | 1 | 2 | 3.981 | 3.981 | 1.307 | 1.545 | 3.056 | 0.744 |
| 16 | 2.62 | 24,200 | 1 | 1 | 1 | 1 | 1 | 11.729 | 11.729 | 0.179 | 2.159 | 0.959 | 0.751 |
| 17 | 1.63 | 24,800 | 1 | 2 | 1 | 1 | 1 | 8.255 | 8.255 | 0.946 | 1.462 | 4.723 | 0.800 |
| 18 | 1.54 | 3,400 | 1 | 2 | 1 | 1 | 1 | 0.419 | 0.419 | 1.466 | 1.682 | 6.280 | 0.801 |
| 19 |  |  | 1 | 1 | 1 | 1 | 1 | 8.884 | 8.884 | 0.309 | 0.745 | 1.838 | 0.946 |
| 20 | 4.03 | 20,600 | 1 | 1 | 2 | 1 | 1 | 8.227 | 8.227 | 0.217 | 0.509 | 0.792 | 1.049 |
| 21 | 2.23 | 77,000 | 1 | 1 | 1 | 2 | 2 | 2.308 | 2.379 | 0.359 | 2.327 | 1.634 | 1.137 |
| 22 |  |  | 1 | 2 | 1 | 1 | 1 | 8.068 | 8.068 | 1.106 | 3.318 | 4.755 | 1.176 |
| 23 | 3.36 | 37,600 | 1 | 2 | 1 | 1 | 1 | 8.057 | 8.057 | 0.790 | 2.393 | 2.478 | 1.520 |
| 24 | 13.30 | 142,900 | 1 | 1 | 1 | 1 | 2 | 0.304 | 0.304 | 0.514 | 4.024 | 6.954 | 1.553 |
| 25 | 0.97 | 4,700 | 1 | 2 | 1 | 1 | 2 | 0.014 | 0.014 | 0.696 | 0.770 | 2.090 | 1.910 |
| 26 | 2.78 | 14,100 | 1 | 1 | 2 | 1 | 1 | 9.229 | 9.229 | 0.302 | 1.029 | 7.204 | 2.608 |
| 27 | 3.77 | 178,000 | 1 | 1 | 1 | 2 | 1 | 2.609 | 8.988 | 0.049 | 1.608 | 0.920 | 3.050 |
| 28 | 4.34 | 56,200 | 1 | 1 | 2 | 1 | 1 | 11.390 | 11.390 | 0.261 | 1.028 |  |  |
| 29 | 4.98 | 30,200 | 1 | 1 | 1 | 1 | 1 | 6.349 | 6.349 | 0.199 | 1.052 |  |  |
| 30 | 2.62 | 4,700 | 1 | 1 | 2 | 1 | 1 | 10.579 | 10.579 | 1.060 | 1.152 |  |  |
| 31 | 13.33 | 50,000 | 2 |  |  | 1 | 1 | 6.645 | 6.645 | 3.247 | 5.194 | 32.112 | 0.069 |
| 32 | 8.57 | 57,000 | 2 |  |  | 1 | 1 | 11.420 | 11.420 | 1.154 | 3.310 | 7.016 | 0.107 |
| 33 | 14.85 | 501,000 | 2 |  |  | 1 | 2 | 0.016 | 0.016 | 1.713 | 1.563 | 0.601 | 0.175 |
| 34 | 5.44 | 196,000 | 2 |  |  |  |  |  |  | 6.072 | 2.194 | 4.850 | 0.182 |
| 35 | 12.02 | 21,900 | 2 |  |  | 1 | 1 | 1.511 | 1.511 | 0.028 | 1.748 | 1.941 | 0.241 |
| 36 | 9.17 | 499,000 | 2 |  |  | 1 | 1 | 6.637 | 6.637 | 0.362 | 0.883 | 1.168 | 0.253 |
| 37 | 14.48 | 215,000 | 2 |  |  | 1 | 1 | 9.821 | 9.821 | 2.289 | 2.143 | 2.199 | 0.339 |
| 38 | 5.52 | 19,700 | 2 |  |  | 2 | 2 | 1.588 | 1.749 | 25.192 | 7.594 | 26.709 | 0.341 |
| 39 | 3.51 | 20,200 | 2 |  |  | 1 | 1 | 11.034 | 11.034 | 2.521 | 10.280 | 3.349 | 0.348 |
| 40 | 13.45 | 19,900 | 2 |  |  | 1 | 1 | 8.526 | 8.526 | 1.393 | 1.675 | 4.754 | 0.351 |
| 41 | 8.69 | 17,900 | 2 |  |  | 1 | 1 | 12.709 | 12.709 | 0.856 | 2.502 | 3.844 | 0.358 |
| 42 | 12.04 | 52,800 | 2 |  |  | 1 | 1 | 8.608 | 8.608 | 0.902 | 1.554 | 1.123 | 0.573 |
| 43 | 15.56 | 317,000 | 2 |  |  | 2 | 2 | 1.539 | 1.711 | 1.529 | 2.254 | 5.231 | 0.573 |
| 44 | 17.6 | 522,000 | 2 |  |  | 1 | 1 | 4.096 | 4.096 | 0.838 | 1.715 | 2.746 | 0.699 |
| 45 | 9.66 | 66,900 | 2 |  |  | 1 | 1 | 7.406 | 7.406 | 2.376 | 2.193 | 4.698 | 0.710 |
| 46 |  |  | 2 |  |  |  |  |  |  | 0.069 | 0.288 | 20.716 | 0.874 |
| 47 | 11.12 | 265,000 | 2 |  |  | 1 | 1 | 1.599 | 1.599 | 0.228 | 1.530 | 1.181 | 0.950 |
| 48 | 10.15 | 17,900 | 2 |  |  | 1 | 1 | 0.107 | 0.107 | 1.925 | 3.638 | 4.225 | 1.350 |
| 49 | 15.22 | 66,700 | 2 |  |  | 1 | 1 | 6.746 | 6.746 | 0.140 | 1.464 | 2.860 | 1.362 |
| 50 | 3.89 | 83,200 | 2 |  |  | 1 | 1 | 1.227 | 1.227 | 0.524 | 2.260 | 3.163 | 1.854 |
| 51 | 9.3 | 19,500 | 2 |  |  |  |  |  |  | 1.578 | 10.918 | 5.088 | 2.030 |
| 52 | 10.89 | 262,000 | 2 |  |  | 2 | 1 | 2.023 | 9.027 | 0.693 | 1.181 | 0.308 |  |
| 53 | 4.92 | 535,000 | 2 |  |  | 1 | 1 | 10.568 | 10.568 | 1.831 | 2.830 | 1.322 |  |
| 54 | 3.53 | 460,000 | 2 |  |  | 1 | 1 | 12.318 | 12.318 | 0.444 | 1.105 | 1.645 |  |
| 55 | 3.35 | 78,200 | 2 |  |  | 1 | 2 | 0.096 | 0.096 | 0.316 | 1.455 | 2.077 |  |
| 56 | 12.5 | 159,000 | 2 |  |  | 1 | 1 | 8.353 | 8.353 | 1.304 | 2.104 | 2.369 |  |
| 57 | 15.12 | 39,400 | 2 |  |  | 1 | 1 | 6.606 | 6.606 | 0.217 | 1.524 | 5.920 |  |
| 58 | 6.83 | 132,000 | 2 |  |  | 1 | 1 | 11.463 | 11.463 | 0.269 | 5.205 | 6.087 |  |
| 59 | 1.71 | 621,000 | 2 |  |  | 1 | 2 | 1.016 | 1.016 | 0.478 | 4.400 | 8.166 |  |
| 60 | 15.62 | 260,000 | 2 |  |  | 1 | 1 | 7.094 | 7.094 | 1.049 | 3.930 | 9.385 |  |
| 61 | 6.65 | 368,000 | 2 |  |  | 2 | 2 | 0.717 | 1.407 | 10.372 | 3.261 | 13.030 |  |
| 62 | 5.63 | 346,000 |  |  |  |  |  |  |  | 1.620 | 7.492 | 14.067 |  |

Age, values in years; WBC: white blood cell count at diagnosis, values in cells/mm3; immune: immunophenotype, 1= B-ALL. 2= T-ALL; hyperd: hyperdiploid karyotype. For hyperd, t(12;21), relapse and death: consider 1=positive. 2= negative. DFS: disease-free survival, OS: overall survival, values in years.