Table S1 Summary information of tag numbers for 39 samples

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample | Total | Tag=>4 | Tag=>8 | Tag=>4average |
| BJ2 | 2359858 | 125371 | 68656 | 18.823 |
| BJ3 | 1404720 | 104710 | 50262 | 13.415 |
| BJ4 | 3777496 | 178666 | 113206 | 21.143 |
| BJ5 | 2977433 | 168730 | 99114 | 17.646 |
| BJ7 | 3569826 | 184218 | 108887 | 19.378 |
| BQ1 | 3299702 | 177104 | 88076 | 18.631 |
| BQ2 | 5192250 | 252841 | 136915 | 20.536 |
| BQ3 | 2901179 | 162393 | 73972 | 17.865 |
| DF4 | 1991906 | 107351 | 63645 | 18.555 |
| DF5 | 2380062 | 117838 | 72797 | 20.198 |
| DF6 | 2118907 | 109204 | 64058 | 19.403 |
| DQ1 | 3026791 | 131439 | 77972 | 23.028 |
| DQ2 | 3530917 | 137972 | 83013 | 25.592 |
| DQ3 | 2393756 | 114935 | 69080 | 20.827 |
| DY1 | 2347200 | 113752 | 69295 | 20.634 |
| DY2 | 2169809 | 105326 | 63212 | 20.601 |
| DY3 | 2714245 | 116794 | 74257 | 23.24 |
| GS1 | 3802535 | 157127 | 98733 | 24.2 |
| GS2 | 1960811 | 124326 | 70028 | 15.772 |
| GS3 | 2439912 | 137183 | 79023 | 17.786 |
| GS4 | 5231440 | 204906 | 125252 | 25.531 |
| GS6 | 1541326 | 110550 | 57795 | 13.942 |
| HB1 | 1647950 | 102240 | 54960 | 16.118 |
| HB2 | 1742687 | 101089 | 56992 | 17.239 |
| HB3 | 1658423 | 105171 | 55864 | 15.769 |
| HB4 | 2262515 | 117160 | 69355 | 19.311 |
| HB5 | 1924961 | 109654 | 61802 | 17.555 |
| HB6 | 2193977 | 116394 | 58762 | 18.85 |
| HRB1 | 1968644 | 102839 | 64960 | 19.143 |
| HRB2 | 3108935 | 113217 | 72484 | 27.46 |
| HRB3 | 3975143 | 127925 | 78697 | 31.074 |
| MH1 | 2720925 | 156349 | 85664 | 17.403 |
| MH3 | 3049985 | 146033 | 82837 | 20.886 |
| Q1 | 4175474 | 166229 | 92263 | 25.119 |
| Q2 | 2956261 | 140449 | 74519 | 21.049 |
| Q3 | 3486498 | 161116 | 90429 | 21.64 |
| ZZ1 | 2380070 | 100739 | 60745 | 23.626 |
| ZZ2 | 2246776 | 107672 | 65604 | 20.867 |
| ZZ3 | 3445606 | 123258 | 78761 | 27.954 |

Table S2 Summary information of the sequencing depth and coverage

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sample | Clean reads | Mapped reads | Mapping rate(%) | Average depth(X) | Coverage at least 1X(%) | Coverage at least 4X(%) |
| BJ2 | 2965834 | 2373547 | 80.03% | 26.55 | 42.29% | 23.41% |
| BJ3 | 1961510 | 1496704 | 76.30% | 19.06 | 37.62% | 19.64% |
| BJ4 | 4545668 | 3633157 | 79.93% | 32.05 | 46.10% | 30.16% |
| BJ5 | 3661960 | 2679828 | 73.18% | 26.31 | 42.88% | 26.84% |
| BJ7 | 4561664 | 3450008 | 75.63% | 30.09 | 47.07% | 30.18% |
| BQ1 | 4225686 | 3706076 | 87.70% | 22.4 | 67.61% | 44.40% |
| BQ2 | 6702434 | 6145184 | 91.69% | 20.19 | 99.92% | 86.63% |
| BQ3 | 3660746 | 3220422 | 87.97% | 21.17 | 65.48% | 41.61% |
| DF4 | 2394162 | 1800642 | 75.21% | 27.42 | 29.71% | 17.09% |
| DF5 | 2862518 | 2154743 | 75.27% | 30.25 | 31.94% | 18.66% |
| DF6 | 2519734 | 1924679 | 76.38% | 28.93 | 29.94% | 17.50% |
| DQ1 | 3671950 | 3041534 | 82.83% | 34.29 | 38.70% | 23.93% |
| DQ2 | 4268620 | 3554391 | 83.27% | 38.25 | 40.54% | 25.14% |
| DQ3 | 2929334 | 2375364 | 81.09% | 29.92 | 35.19% | 21.49% |
| DY1 | 2943614 | 2071492 | 70.37% | 30.45 | 30.23% | 17.45% |
| DY2 | 2656060 | 1916725 | 72.16% | 29.5 | 29.24% | 16.68% |
| DY3 | 3264666 | 2358901 | 72.26% | 32.96 | 31.35% | 18.43% |
| GS1 | 4465760 | 3346436 | 74.94% | 37.66 | 36.95% | 23.54% |
| GS2 | 2608494 | 1829820 | 70.15% | 24.07 | 33.63% | 19.34% |
| GS3 | 3034790 | 2199397 | 72.47% | 27.7 | 33.93% | 20.68% |
| GS4 | 6265728 | 4598646 | 73.39% | 43.13 | 41.93% | 28.19% |
| GS6 | 2010022 | 1357665 | 67.54% | 20.66 | 29.66% | 16.60% |
| HB1 | 1998526 | 1621975 | 81.16% | 22.42 | 33.53% | 18.96% |
| HB2 | 2105536 | 1700682 | 80.77% | 23.54 | 33.82% | 18.96% |
| HB3 | 2052384 | 1590556 | 77.50% | 22.4 | 32.82% | 18.71% |
| HB4 | 2679294 | 2197758 | 82.03% | 27.02 | 37.02% | 21.48% |
| HB5 | 2323222 | 1896676 | 81.64% | 24.26 | 36.12% | 20.52% |
| HB6 | 2651062 | 2197435 | 82.89% | 26.74 | 38.64% | 21.72% |
| HRB1 | 2442314 | 1778319 | 72.81% | 28.04 | 28.61% | 16.35% |
| HRB2 | 3678338 | 2844997 | 77.34% | 38.19 | 31.32% | 18.55% |
| HRB3 | 4602164 | 3614786 | 78.55% | 43.41 | 32.58% | 20.37% |
| MH1 | 3339402 | 2699764 | 80.85% | 25.83 | 44.59% | 27.58% |
| MH3 | 3563850 | 2963017 | 83.14% | 30.99 | 41.38% | 25.78% |
| Q1 | 4966156 | 3858928 | 77.70% | 35.22 | 46.24% | 28.67% |
| Q2 | 3662878 | 2829703 | 77.25% | 29.31 | 42.82% | 25.09% |
| Q3 | 4165368 | 3169687 | 76.10% | 31.11 | 43.78% | 27.02% |
| ZZ1 | 2744502 | 2353080 | 85.74% | 32.73 | 32.88% | 19.65% |