## Table S2. Goodness-of-fit test to compare K-mer distribution to Possion probability mass function of the theoretic lambda and compare MDA & MALBAC K-mer distribution to the blood K-mer distribution with Kolmogorov-Smirnov test.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Theoretic 𝜆\* | 𝜒2 | *P*-value | D to blood | *P*-value |
| MDA 23 | 3.26 | 116 | 1.54E-18 | 0.47 | 0.02 |
| MDA 24 | 3.28 | 113 | 5.12E-18 | 0.47 | 0.02 |
| MDA 28 | 3.31 | 981 | 3.86E-15 | 0.47 | 0.02 |
| Donor | 3.28 | 1.00 | 1.00E+00 | - | - |
| MALBAC 01 | 3.30 | 99.8 | 1.78E-15 | 0.53 | 0.009 |
| MALBAC 02 | 3.28 | 104 | 2.22E-16 | 0.53 | 0.009 |
| MALBAC 03 | 2.94 | 313 | 3.71E-59 | 0.53 | 0.009 |

We only choose count [2,15] for the calculation of Pearson 𝜒2 test, thus df = 13. Theoretic 𝜆 is calculated from sequencing depth of reads, which are used for k-mer counting.