**Supplementary figures**

**High gDNA input (10 ng)**

- **MDA**
  - (REPLI-g): 154, 144, 156
  - GenomiPhi: 319, 144, 322
  - Illustra MiniSpin kit: 159, 1423, 1402
  - ChargeSwitch gDNA Micro Tissue kit: 51048, 148785, 1402

- **QPLS**
  - (Single Cell WGA Kit): 1260, 1276
  - ChargeSwitch-LMA, ExpressLink, LigaFast: 1035, 1797, 1624

- **LMA**
  - (ChargeSwitch-Ovation): 2569, 5122, 3013
  - (Illustra Mini Spin Kit-Ovation): 5318, 6160, 1200

- **SPIA**
  - (Quick gDNA MicroPrep-Ovation): 2719, 315, 287

**Low gDNA input (15 cells)**

- **MDA**
  - (REPLI-g): 4975, 7240
  - GenomiPhi: 21037, 7420
  - Illustra MiniSpin kit: 871, 1705, 24679

- **QPLS**
  - (Single Cell WGA Kit): 3013, 3163, 1339

- **LMA**
  - (ChargeSwitch-LMA, ExpressLink, LigaFast): 4709, 4162
  - ChargeSwitch-Ovation: 1150, 986

- **SPIA**
  - (Quick gDNA MicroPrep-Ovation): 4400, 6530

**Figure S1. Comparison of the three replicates in terms of the numbers of loci that provided positive genotype calls, for each tested WGA technologies under high and low gDNA input.** For high gDNA input (10 ng), MDA-based WGA kits showed consistently the highest reproducibility. SPIA-based technology showed very high reproducibility in conjunction with the Illustra MiniSpin kit but not with ChargeSwitch gDNA Micro Tissue kit. Results obtained using LMA-based methods were the least reproducible regardless of the type of DNA polymerase. For low gDNA input (15 cells), the highest reproducibility was achieved for Illustra GenomiPhi V2 DNA amplification kit (MDA-based WGA) followed by the Single Cell WGA Kit (QPLS-based). **LMA:** Ligation-Mediated Amplification; **MDA:** Multiple Displacement Amplification; **QPLS:** Quasi-random Primed Library Synthesis followed by PCR amplification; **SPIA:** Single Primer Isothermal Amplification.