

Supplementary Table 4. Sensibility and specificity of the mappers according to the minimum millions of unique reads.

| | All the samples regardless of the number of reads | | >1 Million reads | | >2 Million reads | | >3 Million reads | | >4 Million reads | |
|-------------------------------|---|-------------|------------------|-------------|------------------|-------------|------------------|-------------|------------------|-------------|
| | TMAP | HPG Aligner | TMAP | HPG Aligner | TMAP | HPG Aligner | TMAP | HPG Aligner | TMAP | HPG Aligner |
| Sensitivity Trisomy 21 | 97.06 | 100.00 | 97.06 | 100.00 | 97.06 | 100.00 | 96.88 | 100.00 | 96.77 | 100.00 |
| Specificity Trisomy 21 | 99.46 | 98.39 | 99.45 | 98.91 | 99.44 | 98.88 | 99.42 | 98.84 | 99.39 | 98.79 |
| Sensitivity Trisomy 18 | 88.89 | 100.00 | 88.89 | 100.00 | 88.89 | 100.00 | 88.24 | 100.00 | 88.24 | 100.00 |
| Specificity Trisomy 18 | 94.06 | 99.01 | 93.97 | 98.99 | 94.33 | 98.97 | 94.12 | 98.93 | 93.85 | 98.88 |
| Sensitivity Trisomy 13 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Specificity Trisomy 13 | 100.00 | 99.53 | 100.00 | 99.53 | 100.00 | 99.51 | 100.00 | 99.49 | 100.00 | 99.47 |
| Sensitivity aneuploidy | 98.28 | 100.00 | 98.28 | 100.00 | 98.28 | 100.00 | 98.18 | 100.00 | 98.15 | 100.00 |
| Specificity aneuploidy | 93.21 | 96.30 | 93.08 | 96.86 | 93.51 | 96.75 | 93.29 | 96.64 | 92.96 | 96.48 |