**Supplementary file 1:** Distribution of demultiplexed reads and reads used in taxa classification by sample and by timepoint.

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| Sample ID | Demultiplexed reads | Taxa reads |
| T1\_Va | 824306 | 149254 |
| T1\_Vb | 577888 | 104747 |
| T1\_Ca | 647315 | 109238 |
| T1\_Cb | 684246 | 125579 |
| T2\_Va | 592004 | 105268 |
| T2\_Vb | 526664 | 111542 |
| T2\_Ca | 591008 | 102640 |
| T2\_Cb | 778140 | 154520 |
| T3\_Va | 870388 | 152532 |
| T3\_Vb | 773726 | 143650 |
| T3\_Ca | 867128 | 151139 |
| T3\_Cb | 720640 | 127454 |
| Total | 8453453 | 1537563 |
| Mean±SD | 704454.4±118960.7 | 128130.3±21033.76 |
| T1 | 2733755 | 488818 |
| T2 | 2487816 | 473970 |
| T3 | 3231882 | 574775 |

T1 – samples collected before nisin-biogel application; T2 – after one application of the nisin-biogel; T3- after three applications of the nisin-biogel. SD – standard deviation; ID – identification.