|  |  |  |  |
| --- | --- | --- | --- |
| **Sample ID** | **Number of sequence reads** | | **QC-passed**  **Reads, %** |
| **Pre-QC** | **Post-QC** |
| N1 | 213,258 | 127,441 | 59.76 |
| N2 | 153,391 | 85,505 | 55.74 |
| N3 | 121,607 | 66,610 | 54.77 |
| N4 | 33,718 | 19,505 | 57.85 |
| N5 | 191,647 | 102,930 | 53.71 |
| N6 | 62,555 | 34,855 | 55.72 |
| N7 | 132,306 | 69,654 | 52.65 |
| N8 | 93,778 | 47,296 | 50.43 |
| N9 | 107,115 | 59,629 | 55.67 |
| N10 | 47,181 | 27,234 | 57.72 |
| W1 | 209,544 | 130,339 | 62.20 |
| W2 | 196,086 | 98,300 | 50.13 |
| W3 | 173,574 | 98,581 | 56.79 |
| W4 | 109,354 | 66,321 | 60.65 |
| W5 | 284,757 | 178,198 | 62.58 |
| W6 | 343,035 | 188,353 | 54.91 |
| W7 | 264,609 | 149,527 | 56.51 |
| W8 | 325,309 | 176,947 | 54.39 |
| W9 | 215,548 | 124,950 | 57.97 |
| W10 | 163,951 | 95,661 | 58.35 |

**Additional file 1: Table S1**. Number of 16S rRNA gene sequence reads of nursing and weaned piglet fecal microbiota before and after quality control.

QC – quality control; N – nursing; W – weaned

The numbers followed by each letter N and W indicate the piglet number.

**Additional file 1: Table S2** Summary of whole metagenome sequence data before and after quality control and annotation

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample ID | MG-RAST ID | No. of sequence reads | | Length of contigs, bp | | No. of contigs | | Alignment: Identified Protein Features | Annotation: Identified Functional Categories |
| Pre-QC | Post-QC | Pre-QC | Post-QC | Pre-QC | Post-QC |
| N1 | mgm4745743.3 | 4,531,548 | 4,530,646 | 74,800,360 | 52,416,370 | 81,447 | 79,410 | 55,257 | 31,527 |
| N2 | mgm4745747.3 | 6,870,302 | 6,868,798 | 130,241,602 | 103,118,418 | 164,528 | 160,633 | 103,541 | 61,547 |
| N3 | mgm4745746.3 | 4,288,774 | 4,287,375 | 69,391,125 | 53,568,785 | 81,677 | 79,941 | 62,874 | 36,796 |
| N4 | mgm4745740.3 | 4,654,022 | 4,653,262 | 82,589,526 | 66,491,857 | 108,853 | 106,095 | 71,088 | 40,136 |
| W1 | mgm4745745.3 | 9,447,406 | 9,445,251 | 151,116,638 | 113,319,181 | 179,364 | 165,774 | 98,920 | 44,941 |
| W2 | mgm4745744.3 | 7,113,170 | 7,111,597 | 151,002,242 | 112,874,763 | 161,617 | 155,573 | 105,330 | 55,088 |
| W3 | mgm4745741.3 | 6,320,228 | 6,318,750 | 144,162,529 | 106,003,305 | 165,591 | 160,988 | 104,264 | 56,570 |
| W4 | mgm4745742.3 | 7,215,282 | 7,213,515 | 173,768,565 | 131,398,512 | 224,894 | 212,007 | 132,418 | 67,400 |

QC – quality control; N – nursing; W – weaned

The numbers followed by each letter N and W indicate the piglet number.