

**Supplementary table 2** Frequency and taxonomy of the most contaminant species in the examined RNA-seq samples.

| Samples mostly contaminated by the species |                       | Contaminant species taxonomy  |
|--|-----------------------|---|
| Number of samples                          | Percentage of samples |   |
| 135  | 49.451                | Bacteria; Firmicutes; Clostridia; Peptostreptococcales; Peptostreptococcaceae; Clostridioides; Clostridioides difficile   |
| 51   | 18.681                | Bacteria; Bacteroidota; Bacteroidia; Cytophagales; Microscillaceae; Hassallia; metagenome   |
| 32   | 11.722                | Bacteria; Firmicutes; Bacilli; Lactobacillales; Lactobacillaceae; Weissella; Weissella viridescens  |
| 26   | 9.524                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Holozoa; Choanozoa; Metazoa; Animalia; BCP clade; Bilateria; Deuterostomia; Chordata; Vertebrata; Gnathostomata; Euteleostomi; Tetrapoda; Mammalia; Homo sapiens                 |
| 10   | 3.663                 | Bacteria; Bacteroidota; Bacteroidia; Cytophagales; Microscillaceae; Ohtaekwangia; metagenome  |
| 2  | 0.733                 | Eukaryota; Archaeplastida; Chloroplastida; Charophyta; Phragmoplastophyta; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Brassicales; Brassica; Brassica juncea var. tumida                        |
| 2  | 0.733                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Nucletmycea; Fungi; Dikarya; Ascomycota; Saccharomycotina; Saccharomycetes; Saccharomycetales; synthetic construct   |
| 2  | 0.733                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Nucletmycea; Fungi; Dikarya; Ascomycota; Pezizomycotina; Sordariomycetes; metagenome   |
| 2  | 0.733                 | Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales; Xanthomonadaceae; Stenotrophomonas; [Pseudomonas] geniculata  |
| 1  | 0.366                 | Eukaryota; Archaeplastida; Chloroplastida; Charophyta; Phragmoplastophyta; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Caryophyllales; Limonium; Limonium bicolor                                |
| 1  | 0.366                 | Eukaryota; Archaeplastida; Chloroplastida; Charophyta; Phragmoplastophyta; Alosa alosa  |
| 1  | 0.366                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Holozoa; Choanozoa; Metazoa; Animalia; BCP clade; Bilateria; Protostomia; Lophotrochozoa; Platyhelminthes; Cestoda; Eucestoda; Cyclophyllidea; Raillietina mitchelli             |
| 1  | 0.366                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Holozoa; Choanozoa; Metazoa; Animalia; BCP clade; Bilateria; Deuterostomia; Chordata; Vertebrata; Gnathostomata; Euteleostomi; Tetrapoda; Mammalia; Monodelphis domestica        |
| 1  | 0.366                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Holozoa; Choanozoa; Metazoa; Animalia; BCP clade; Bilateria; Deuterostomia; Chordata; Vertebrata; Gnathostomata; Euteleostomi; Tetrapoda; Mammalia; Malaclemys terrapin terrapin |
| 1  | 0.366                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Holozoa; Choanozoa; Metazoa; Animalia; BCP clade; Bilateria; Deuterostomia; Chordata; Vertebrata; Gnathostomata; Euteleostomi; Tetrapoda; Mammalia; Ensifer sp. CCBAU 251167     |
| 1  | 0.366                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Holozoa; Choanozoa; Metazoa; Animalia; BCP clade; Bilateria; Deuterostomia; Chordata; Vertebrata; Gnathostomata; Euteleostomi; Tetrapoda; Aves; Gallus gallus                    |
| 1  | 0.366                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Holozoa; Choanozoa; Metazoa; Animalia; BCP clade; Bilateria; Deuterostomia; Chordata; Vertebrata; Gnathostomata; Euteleostomi; Gorilla gorilla gorilla                           |
| 1  | 0.366                 | Eukaryota; Amorphea; Obazoa; Opisthokonta; Holozoa; Choanozoa; Metazoa; Animalia; BCP clade; Bilateria; Deuterostomia; Chordata; Vertebrata; Gnathostomata; Euteleostomi; Callithrix jacchus                                |
| 1  | 0.366                 | Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales; Pseudomonadaceae; Pseudomonas; Pseudomonas sp. bs2935   |
| 1  | 0.366                 | Bacteria; Actinobacteriota; Actinobacteria; Micrococcales; Micrococcaceae; Rothia; Rothia mucilaginosa ATCC 25296   |