

**Figure S1. Subsystem information of the HN9 based on the RAST annotation server.**

**Table S1 The information of strain used in this study.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Strains | Assembly Accession | Status | Size  (Mb) | Assembly  Coverage | Submitter Organization |
| HN9\* (This study) | **CP061715-CP061717** | **Complete** | **2.14** | **500** | **Prince of Songkla University** |
| ZPA017 | GCF\_001767275.1 | Complete | 2.13 | N/A | Beijing Academy of Agriculture and Forestry Sciences |
| BCC1 | GCF\_001922325.1 | Complete | 2.17 | 415 | China Agricultural University |
| SRCM100424 | GCF\_002173575.1 | Complete | 2.09 | 628 | Microbial Institute for Fermentation Industry |
| SRCM100313 | GCF\_002173595.1 | Complete | 2.11 | 607 | Microbial Institute for Fermentation Industry |
| SRCM101189 | GCF\_002174215.1 | Complete | 2.09 | 1338 | Microbial Institute for Fermentation Industry |
| PB22 | GCF\_003957355.1 | Complete | 1.95 | 416 | Korea Food Research Institute |
| SRCM103387 | GCF\_004101585.1 | Complete | 2.03 | 310.93 | Microbial Institute for Fermentation Industry |
| SRCM103367 | GCF\_004102605.1 | Complete | 1.96 | 234.7 | Microbial Institute for Fermentation Industry |
| SRCM103444 | GCF\_004103635.1 | Complete | 19.70 | 346.26 | Microbial Institute for Fermentation Industry |
| ATCC 8042 | GCF\_004355265.1 | Complete | 2.01 | 531 | Seoul National University |
| JQII-5 | GCF\_006770685.1 | Complete | 2.08 | 200 | BGI |
| SRCM102731 | GCF\_009913875.1 | Complete | 2.06 | 355 | Microbial Institute for Fermentation Industry |
| SRCM102732 | GCF\_009913895.1 | Complete | 2.07 | 447 | Microbial Institute for Fermentation Industry |
| CACC 537 | GCF\_010092385.1 | Complete | 2.03 | 12 | Center for Industrialization of Agricultural and Livestock Microorganisms |
| PMC48 | GCF\_011604585.1 | Complete | 2.04 | 209.81 | Probiotics Microbiome Convergence Center |
| PMC65 | GCF\_013127755.1 | Complete | 2.04 | 482.33 | Probiotics Microbiome Convergence Center |
| DSM 20284 | GCF\_000146325.1 | Scaffold | 1.94 | 130 | Baylor College of Medicine |
| 7\_4 | GCF\_000163095.1 | Scaffold | 2.01 | N/A | Broad Institute |
| D3 | GCF\_000380265.1 | Scaffold | 1.96 | 567 | Texas A&M University |
| DSM 19927 | GCF\_001437115.1 | Scaffold | 2.04 | 100 | Shanghai Majorbio |
| LPBC161 | GCF\_004022295.1 | Scaffold | 1.97 | 11 | UFPR |
| L8-A | GCF\_004099675.1 | Scaffold | 1.94 | 142 | Texas Tech University |
| L3-A | GCF\_004099705.1 | Scaffold | 1.94 | 140 | Texas Tech University |
| L2-A | GCF\_004099815.1 | Scaffold | 1.94 | 214 | Texas Tech University |
| L14-B | GCF\_004100005.1 | Scaffold | 1.93 | 67 | Texas Tech University |
| IRZ12B | GCF\_013375165.1 | Scaffold | 2.05 | 258 | Padova university |
| MGYG-HGUT-01296 | GCF\_902373655.1 | Scaffold | 1.94 | 10 | EMG |
| SRCM100320 | GCF\_001672605.1 | Contig | 2.07 | 758 | Microbial Institute for Fermentation Industry |
| NRCC4 | GCF\_001867265.1 | Contig | 1.45 | 12 | ICAR-National Research Centre on Camel |
| JKY18 | GCF\_001868705.1 | Contig | 1.87 | 788 | Anhui University |
| UMNPBX20 | GCF\_002553675.1 | Contig | 2.03 | 50 | University of Minnesota |
| GS1 | GCF\_003571945.1 | Contig | 2.00 | 120 | Kangwon National University |
| WT | GCF\_003591195.1 | Contig | 2.02 | 160 | Kangwon National University |
| SRCM103289 | GCF\_004054355.1 | Contig | 2.09 | 393.98 | Chunlab |
| FAM 18969 | GCF\_005864375.1 | Contig | 2.07 | 60 | Agroscope |
| NBRC 12231 | GCF\_006539025.1 | Contig | 1.93 | 298 | National Institute of Technology and Evaluation Biological Resource Center |
| E1 | GCF\_009910835.1 | Contig | 2.01 | 20 | University of Surrey |
| M16 | GCF\_011009585.1 | Contig | 1.82 | 5 | University of Surrey |
| I32 | GCF\_011009675.1 | Contig | 2.03 | 15 | University of Surrey |
| E24 | GCF\_011009695.1 | Contig | 2.01 | 15 | University of Surrey |
| F7 | GCF\_011009715.1 | Contig | 2.09 | 15 | University of Surrey |
| CCUG 32235 | GCF\_012396515.1 | Contig | 1.93 | 162.8 | Bacterial Special Pathogens Branch (CDC) |
| BIO6314 | GCF\_013249135.1 | Contig | 1.92 | 876 | Bioprox |
| S7 | GCF\_900163535.1 | Contig | 2.01 | 448 | MICALIS |

**Table S2** **Metadata of all strains used in this study.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **AssemblyAccession** | **AssemblyName** | **Taxid** | **Organism** | **SpeciesTaxid** | **SpeciesName** | **AssemblyStatus** | **BioprojectAccn** | **BioprojectId** | **BioprojectAccn2** | **BioprojectId3** | **BioSampleAccn** | **BioSampleId** | **Sub\_type** | **Sub\_value** | **Coverage** | **SubmitterOrganization** | **RefSeq\_category** | **string4** | **Genbank** | **RefSeq** | **Similarity** | **ContigN50** | **ScaffoldN50** |
| GCF\_002982135.1 | ASM298213v1 | 114090 | Pediococcus inopinatus (firmicutes) | 114090 | Pediococcus inopinatus | Complete Genome | PRJNA376812 | 376812 | PRJNA224116 | 224116 | SAMN06447728 | 6447728 | strain | DSM 20285 | 396.94 | Kyungpook National University | representative genome | from-type | GCA\_002982135.1 | GCF\_002982135.1 | identical | 2137091 | 2137091 |
| GCF\_001611155.1 | ASM161115v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Complete Genome | PRJNA290141 | 290141 | PRJNA224116 | 224116 | SAMN03876485 | 3876485 | strain | TMW 2.1536 | 137 | Technische Universitaet Muenchen | representative genome | full-genome-representation | GCA\_001611155.1 | GCF\_001611155.1 | identical | 2125430 | 2125430 |
| GCF\_013127755.1 | ASM1312775v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA632644 | 632644 | PRJNA224116 | 224116 | SAMN14916503 | 14916503 | strain | PMC65 | 482.33 | Probiotics Microbiome Convergence Center | representative genome | full-genome-representation | GCA\_013127755.1 | GCF\_013127755.1 | identical | 2044083 | 2044083 |
| GCF\_001702215.1 | ASM170221v1 | 187452 | Pediococcus claussenii (firmicutes) | 187452 | Pediococcus claussenii | Complete Genome | PRJNA290141 | 290141 | PRJNA224116 | 224116 | SAMN04505731 | 4505731 | strain | TMW 2.53 | 192 | Technische Universitaet Muenchen | representative genome | full-genome-representation | GCA\_001702215.1 | GCF\_001702215.1 | identical | 1889038 | 1889038 |
| GCF\_000014505.1 | ASM1450v1 | 278197 | Pediococcus pentosaceus ATCC 25745 (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA398 | 398 | PRJNA224116 | 224116 | SAMN02598525 | 2598525 | strain | ATCC 25745 | 0 | US DOE Joint Genome Institute (JGI), The Lactic Acid Bacteria Genome Consortium and Fidelity Systems Inc. | representative genome | full-genome-representation | GCA\_000014505.1 | GCF\_000014505.1 | identical | 1832387 | 1832387 |
| GCF\_001438655.1 | ASM143865v1 | 319652 | Pediococcus cellicola (firmicutes) | 319652 | Pediococcus cellicola | Contig | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797811 | 2797811 | strain | DSM 17757 | 100 | Shanghai Majorbio | representative genome | from-type | GCA\_001438655.1 | GCF\_001438655.1 | identical | 218167 | 218167 |
| GCF\_001437075.1 | ASM143707v1 | 331679 | Pediococcus stilesii (firmicutes) | 331679 | Pediococcus stilesii | Contig | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797812 | 2797812 | strain | DSM 18001 | 100 | Shanghai Majorbio | representative genome | from-type | GCA\_001437075.1 | GCF\_001437075.1 | identical | 98964 | 98964 |
| GCF\_001437405.1 | ASM143740v1 | 319653 | Pediococcus ethanolidurans (firmicutes) | 319653 | Pediococcus ethanolidurans | Contig | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797818 | 2797818 | strain | DSM 22301 | 100 | Shanghai Majorbio | representative genome | from-type | GCA\_001437405.1 | GCF\_001437405.1 | identical | 94848 | 94848 |
| GCF\_012396535.1 | ASM1239653v1 | 480391 | Pediococcus argentinicus (firmicutes) | 480391 | Pediococcus argentinicus | Contig | PRJNA622446 | 622446 | PRJNA224116 | 224116 | SAMN14517845 | 14517845 | strain | CCUG 54535 | 199 | Bacterial Special Pathogens Branch (CDC) | representative genome | from-type | GCA\_012396535.1 | GCF\_012396535.1 | identical | 47517 | 47517 |
| GCF\_007990205.1 | ASM799020v1 | 54062 | Pediococcus parvulus (firmicutes) | 54062 | Pediococcus parvulus | Contig | PRJDB6092 | 396402 | PRJNA224116 | 224116 | SAMD00166260 | 11337974 | strain | NBRC 100673 | 124 | National Institute of Technology and Evaluation | representative genome | from-type | GCA\_007990205.1 | GCF\_007990205.1 | identical | 40210 | 40210 |
| GCF\_000237995.1 | ASM23799v2 | 701521 | Pediococcus claussenii ATCC BAA-344 (firmicutes) | 187452 | Pediococcus claussenii | Complete Genome | PRJNA42741 | 42741 | PRJNA224116 | 224116 | SAMN02604240 | 2604240 | strain | ATCC BAA-344 | 0 | University of Saskatchewan | na | from-type | GCA\_000237995.2 | GCF\_000237995.1 | identical | 1829111 | 1829111 |
| GCF\_001611135.1 | ASM161113v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Complete Genome | PRJNA290141 | 290141 | PRJNA224116 | 224116 | SAMN03876484 | 3876484 | strain | TMW 2.1535 | 142 | Technische Universitaet Muenchen | na | full-genome-representation | GCA\_001611135.1 | GCF\_001611135.1 | identical | 2247318 | 2247318 |
| GCF\_001611115.1 | ASM161111v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Complete Genome | PRJNA290141 | 290141 | PRJNA224116 | 224116 | SAMN03876483 | 3876483 | strain | TMW 2.1534 | 138 | Technische Universitaet Muenchen | na | full-genome-representation | GCA\_001611115.1 | GCF\_001611115.1 | identical | 2172287 | 2172287 |
| GCF\_001611075.1 | ASM161107v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Complete Genome | PRJNA290141 | 290141 | PRJNA224116 | 224116 | SAMN03876482 | 3876482 | strain | TMW 2.1533 | 92 | Technische Universitaet Muenchen | na | full-genome-representation | GCA\_001611075.1 | GCF\_001611075.1 | identical | 2149374 | 2149374 |
| GCF\_001767275.1 | ASM176727v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA312971 | 312971 | PRJNA224116 | 224116 | SAMN04515708 | 4515708 | strain | ZPA017 | 0 | Beijing Academy of Agriculture and Forestry Sciences | na | full-genome-representation | GCA\_001767275.1 | GCF\_001767275.1 | identical | 2131361 | 2131361 |
| GCF\_001922325.1 | ASM192232v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA357663 | 357663 | PRJNA224116 | 224116 | SAMN06052263 | 6052263 | strain | BCC1 | 415 | China Agricultural University | na | full-genome-representation | GCA\_001922325.1 | GCF\_001922325.1 | identical | 2096059 | 2096059 |
| GCF\_006770685.1 | ASM677068v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA412124 | 412124 | PRJNA224116 | 224116 | SAMN07701376 | 7701376 | strain | JQII-5 | 200 | BGI | na | full-genome-representation | GCA\_006770685.1 | GCF\_006770685.1 | identical | 2085679 | 2085679 |
| GCF\_001611035.1 | ASM161103v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Complete Genome | PRJNA290141 | 290141 | PRJNA224116 | 224116 | SAMN03876481 | 3876481 | strain | TMW 2.1532 | 144 | Technische Universitaet Muenchen | na | full-genome-representation | GCA\_001611035.1 | GCF\_001611035.1 | identical | 2073735 | 2073735 |
| GCF\_011604585.1 | ASM1160458v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA612145 | 612145 | PRJNA224116 | 224116 | SAMN14362951 | 14362951 | strain | PMC48 | 209.81 | Probiotics Microbiome Convergence Center | na | full-genome-representation | GCA\_011604585.1 | GCF\_011604585.1 | identical | 2043929 | 2043929 |
| GCF\_010092385.1 | ASM1009238v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA601629 | 601629 | PRJNA224116 | 224116 | SAMN13871425 | 13871425 | strain | CACC 537 | 12 | Center for Industrialization of Agricultural and Livestock Microorganisms | na | full-genome-representation | GCA\_010092385.1 | GCF\_010092385.1 | identical | 2035984 | 2035984 |
| GCF\_002174215.1 | ASM217421v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA388027 | 388027 | PRJNA224116 | 224116 | SAMN07167785 | 7167785 | strain | SRCM101189 | 1338 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_002174215.1 | GCF\_002174215.1 | identical | 2025732 | 2025732 |
| GCF\_002173575.1 | ASM217357v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA386762 | 386762 | PRJNA224116 | 224116 | SAMN07126147 | 7126147 | strain | SRCM100424 | 628 | Microbial Institiue for Fermentation Industry | na | full-genome-representation | GCA\_002173575.1 | GCF\_002173575.1 | identical | 2025714 | 2025714 |
| GCF\_002173595.1 | ASM217359v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA386761 | 386761 | PRJNA224116 | 224116 | SAMN07125954 | 7125954 | strain | SRCM100313 | 607 | Microbial Institiue for Fermentation Industry | na | full-genome-representation | GCA\_002173595.1 | GCF\_002173595.1 | identical | 2025575 | 2025575 |
| GCF\_009913895.1 | ASM991389v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA438180 | 438180 | PRJNA224116 | 224116 | SAMN08707607 | 8707607 | strain | SRCM102732 | 447 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_009913895.1 | GCF\_009913895.1 | identical | 2018117 | 2018117 |
| GCF\_009913875.1 | ASM991387v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA438180 | 438180 | PRJNA224116 | 224116 | SAMN08707606 | 8707606 | strain | SRCM102731 | 355 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_009913875.1 | GCF\_009913875.1 | identical | 2015015 | 2015015 |
| GCF\_004355265.1 | ASM435526v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA503305 | 503305 | PRJNA224116 | 224116 | SAMN10358339 | 10358339 | strain | ATCC 8042 | 531 | Seoul National University | na | full-genome-representation | GCA\_004355265.1 | GCF\_004355265.1 | identical | 2009598 | 2009598 |
| GCF\_004101585.1 | ASM410158v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA515148 | 515148 | PRJNA224116 | 224116 | SAMN10743318 | 10743318 | strain | SRCM103387 | 310.93 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_004101585.1 | GCF\_004101585.1 | identical | 2001079 | 2001079 |
| GCF\_004103635.1 | ASM410363v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA515377 | 515377 | PRJNA224116 | 224116 | SAMN10754287 | 10754287 | strain | SRCM103444 | 346.26 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_004103635.1 | GCF\_004103635.1 | identical | 1970727 | 1970727 |
| GCF\_003957355.1 | ASM395735v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA422477 | 422477 | PRJNA224116 | 224116 | SAMN08180273 | 8180273 | strain | PB22 | 416 | Korea Food Research Institute | na | full-genome-representation | GCA\_003957355.1 | GCF\_003957355.1 | identical | 1955616 | 1955616 |
| GCF\_001702235.1 | ASM170223v1 | 187452 | Pediococcus claussenii (firmicutes) | 187452 | Pediococcus claussenii | Complete Genome | PRJNA290141 | 290141 | PRJNA224116 | 224116 | SAMN04505732 | 4505732 | strain | TMW 2.54 | 146 | Technische Universitaet Muenchen | na | full-genome-representation | GCA\_001702235.1 | GCF\_001702235.1 | identical | 1886832 | 1886832 |
| GCF\_004102605.1 | ASM410260v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Complete Genome | PRJNA515147 | 515147 | PRJNA224116 | 224116 | SAMN10743317 | 10743317 | strain | SRCM103367 | 234.7 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_004102605.1 | GCF\_004102605.1 | identical | 1852892 | 1852892 |
| GCF\_007923185.1 | ASM792318v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA526333 | 526333 | PRJNA224116 | 224116 | SAMN11094516 | 11094516 | strain | SL001 | 5758 | Hunan Normal University | na | full-genome-representation | GCA\_007923185.1 | GCF\_007923185.1 | identical | 1842476 | 1842476 |
| GCF\_009791435.1 | ASM979143v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA596038 | 596038 | PRJNA224116 | 224116 | SAMN13611447 | 13611447 | strain | GDIAS001 | 250 | Guangdong Academy of Agricultural Sciences | na | full-genome-representation | GCA\_009791435.1 | GCF\_009791435.1 | identical | 1831351 | 1831351 |
| GCF\_009914035.1 | ASM991403v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA438180 | 438180 | PRJNA224116 | 224116 | SAMN08707615 | 8707615 | strain | SRCM102740 | 789 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_009914035.1 | GCF\_009914035.1 | identical | 1818150 | 1818150 |
| GCF\_009913995.1 | ASM991399v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA438180 | 438180 | PRJNA224116 | 224116 | SAMN08707613 | 8707613 | strain | SRCM102738 | 750 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_009913995.1 | GCF\_009913995.1 | identical | 1818149 | 1818149 |
| GCF\_009914015.1 | ASM991401v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA438180 | 438180 | PRJNA224116 | 224116 | SAMN08707614 | 8707614 | strain | SRCM102739 | 362 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_009914015.1 | GCF\_009914015.1 | identical | 1818149 | 1818149 |
| GCF\_000496265.1 | ASM49626v1 | 1408206 | Pediococcus pentosaceus SL4 (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA222573 | 222573 | PRJNA224116 | 224116 | SAMN02603952 | 2603952 | strain | SL4 | 3700 | The Technical University of Denmark | na | full-genome-representation | GCA\_000496265.1 | GCF\_000496265.1 | identical | 1789138 | 1789138 |
| GCF\_002173535.1 | ASM217353v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA386763 | 386763 | PRJNA224116 | 224116 | SAMN07126152 | 7126152 | strain | SRCM100892 | 594 | Microbial Institiue for Fermentation Industry | na | full-genome-representation | GCA\_002173535.1 | GCF\_002173535.1 | identical | 1785266 | 1785266 |
| GCF\_002982155.1 | ASM298215v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA376813 | 376813 | PRJNA224116 | 224116 | SAMN06447729 | 6447729 | strain | KCCM 40703 | 460.75 | Kyungpook National University | na | full-genome-representation | GCA\_002982155.1 | GCF\_002982155.1 | identical | 1758362 | 1758362 |
| GCF\_002202155.1 | ASM220215v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA390207 | 390207 | PRJNA224116 | 224116 | SAMN07224387 | 7224387 | strain | SRCM100194 | 2643 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_002202155.1 | GCF\_002202155.1 | identical | 1757573 | 1757573 |
| GCF\_009913955.1 | ASM991395v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA438180 | 438180 | PRJNA224116 | 224116 | SAMN08707611 | 8707611 | strain | SRCM102736 | 568 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_009913955.1 | GCF\_009913955.1 | identical | 1756764 | 1756764 |
| GCF\_003429405.1 | ASM342940v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA399825 | 399825 | PRJNA224116 | 224116 | SAMN07551496 | 7551496 | strain | SS1-3 | 341 | Korea Food Research Institute | na | full-genome-representation | GCA\_003429405.1 | GCF\_003429405.1 | identical | 1752312 | 1752312 |
| GCF\_001411765.2 | ASM141176v2 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA260124 | 260124 | PRJNA224116 | 224116 | SAMN04017317 | 4017317 | strain | wikim20 | 621.6 | WIKIM | na | full-genome-representation | GCA\_001411765.2 | GCF\_001411765.2 | identical | 1739283 | 1739283 |
| GCF\_006770865.1 | ASM677086v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA412135 | 412135 | PRJNA224116 | 224116 | SAMN07701459 | 7701459 | strain | JQI-7 | 200 | BGI | na | full-genome-representation | GCA\_006770865.1 | GCF\_006770865.1 | identical | 1732880 | 1732880 |
| GCF\_009930955.1 | ASM993095v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Complete Genome | PRJNA438180 | 438180 | PRJNA224116 | 224116 | SAMN08707609 | 8707609 | strain | SRCM102734 | 487 | Microbial Institute for Fermentation Industry | na | full-genome-representation | GCA\_009930955.1 | GCF\_009930955.1 | identical | 1707614 | 1707614 |
| GCF\_000146325.1 | ASM14632v1 | 862514 | Pediococcus acidilactici DSM 20284 (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA50527 | 50527 | PRJNA224116 | 224116 | SAMN00116807 | 116807 | strain | DSM 20284 | 130 | Baylor College of Medicine | na | from-type | GCA\_000146325.1 | GCF\_000146325.1 | identical | 425094 | 1937622 |
| GCF\_012396515.1 | ASM1239651v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA622446 | 622446 | PRJNA224116 | 224116 | SAMN14517844 | 14517844 | strain | CCUG 32235 | 162.8 | Bacterial Special Pathogens Branch (CDC) | na | from-type | GCA\_012396515.1 | GCF\_012396515.1 | identical | 446249 | 446249 |
| GCF\_001437115.1 | ASM143711v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797813 | 2797813 | strain | DSM 19927 | 100 | Shanghai Majorbio | na | from-type | GCA\_001437115.1 | GCF\_001437115.1 | identical | 318866 | 318866 |
| GCF\_004354495.1 | ASM435449v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA434256 | 434256 | PRJNA224116 | 224116 | SAMN08543181 | 8543181 | strain | ATCC 33316 | 60 | Carlsberg Research Laboratory | na | from-type | GCA\_004354495.1 | GCF\_004354495.1 | identical | 302347 | 302347 |
| GCF\_001437285.1 | ASM143728v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797817 | 2797817 | strain | DSM 20336 | 100 | Shanghai Majorbio | na | from-type | GCA\_001437285.1 | GCF\_001437285.1 | identical | 295919 | 295919 |
| GCF\_001436905.1 | ASM143690v1 | 187452 | Pediococcus claussenii (firmicutes) | 187452 | Pediococcus claussenii | Scaffold | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797810 | 2797810 | strain | DSM 14800 | 100 | Shanghai Majorbio | na | from-type | GCA\_001436905.1 | GCF\_001436905.1 | identical | 204200 | 219838 |
| GCF\_000319265.1 | Plo\_1.0 | 1229281 | Pediococcus acidilactici NGRI 0510Q (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJDB499 | 174408 | PRJNA224116 | 224116 | SAMD00036646 | 4091611 | strain | NGRI 0510Q | 232 | Microbial Genetics, Institute of Genetic Resources, Faculty of Agriculture, Kyushu University | na | from-type | GCA\_000319265.1 | GCF\_000319265.1 | identical | 102322 | 102322 |
| GCF\_900111205.1 | IMG-taxon 2617270883 annotated assembly | 319653 | Pediococcus ethanolidurans (firmicutes) | 319653 | Pediococcus ethanolidurans | Scaffold | PRJEB17023 | 351207 | PRJNA224116 | 224116 | SAMN04487973 | 4487973 | strain | CGMCC 1.3889 | 624 | DOE - JOINT GENOME INSTITUTE | na | from-type | GCA\_900111205.1 | GCF\_900111205.1 | identical | 74433 | 100844 |
| GCF\_001437605.1 | ASM143760v1 | 480391 | Pediococcus argentinicus (firmicutes) | 480391 | Pediococcus argentinicus | Scaffold | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797819 | 2797819 | strain | DSM 23026 | 100 | Shanghai Majorbio | na | from-type | GCA\_001437605.1 | GCF\_001437605.1 | identical | 43657 | 43657 |
| GCF\_001438725.1 | ASM143872v1 | 114090 | Pediococcus inopinatus (firmicutes) | 114090 | Pediococcus inopinatus | Contig | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797814 | 2797814 | strain | DSM 20285 | 100 | Shanghai Majorbio | na | from-type | GCA\_001438725.1 | GCF\_001438725.1 | identical | 37923 | 37923 |
| GCF\_001437255.1 | ASM143725v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Contig | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797815 | 2797815 | strain | DSM 20331 | 100 | Shanghai Majorbio | na | from-type | GCA\_001437255.1 | GCF\_001437255.1 | identical | 20859 | 20859 |
| GCF\_004054355.1 | ASM405435v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA514932 | 514932 | PRJNA224116 | 224116 | SAMN10737798 | 10737798 | strain | SRCM 103289 | 393.98 | Chunlab | na | full-genome-representation | GCA\_004054355.1 | GCF\_004054355.1 | identical | 2022494 | 2022494 |
| GCF\_009809595.1 | ASM980959v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008348 | 13008348 | strain | FAM19132 | 124 | Agroscope | na | full-genome-representation | GCA\_009809595.1 | GCF\_009809595.1 | identical | 1906512 | 1906512 |
| GCF\_000526815.1 | ASM52681v1 | 1384067 | Pediococcus acidilactici AGR20 (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA214531 | 214531 | PRJNA224116 | 224116 | SAMN02584994 | 2584994 | strain | AGR20 | 0 | DOE Joint Genome Institute | na | full-genome-representation | GCA\_000526815.1 | GCF\_000526815.1 | identical | 1850049 | 1850049 |
| GCF\_900454755.1 | 54332\_C01 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJEB6403 | 251923 | PRJNA224116 | 224116 | SAMEA101173918 | 7674453 | strain | NCTC8066 | 100 | SC | na | full-genome-representation | GCA\_900454755.1 | GCF\_900454755.1 | identical | 1785489 | 1785489 |
| GCF\_000708635.1 | PenPed1.0 | 1460385 | Pediococcus pentosaceus CGMCC 7049 (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA237570 | 237570 | PRJNA224116 | 224116 | SAMN02639794 | 2639794 | strain | CGMCC 7049 | 50 | State Key Laboratory for Diagnosis and Treatment of Infectious Disease, The First Affiliated Hospital, Zhejiang University | na | full-genome-representation | GCA\_000708635.1 | GCF\_000708635.1 | identical | 476563 | 476563 |
| GCF\_902386405.1 | UHGG\_MGYG-HGUT-02367 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJEB33885 | 559126 | PRJNA224116 | 224116 | SAMEA5851871 | 12520869 |  |  | 10 | EMG | na | full-genome-representation | GCA\_902386405.1 | GCF\_902386405.1 | identical | 476563 | 476563 |
| GCF\_009808655.1 | ASM980865v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008394 | 13008394 | strain | FAM18327 | 18 | Agroscope | na | full-genome-representation | GCA\_009808655.1 | GCF\_009808655.1 | identical | 448591 | 448591 |
| GCF\_004099705.1 | ASM409970v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA515210 | 515210 | PRJNA224116 | 224116 | SAMN10744158 | 10744158 | strain | L3-A | 140 | Texas Tech University | na | full-genome-representation | GCA\_004099705.1 | GCF\_004099705.1 | identical | 434882 | 434882 |
| GCF\_902373655.1 | MGYG-HGUT-01296 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJEB33885 | 559126 | PRJNA224116 | 224116 | SAMEA5850799 | 12519769 |  |  | 10 | EMG | na | full-genome-representation | GCA\_902373655.1 | GCF\_902373655.1 | identical | 425094 | 1937622 |
| GCF\_005864375.1 | ASM586437v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA543085 | 543085 | PRJNA224116 | 224116 | SAMN11653951 | 11653951 | strain | FAM 18969 | 60 | Agroscope | na | full-genome-representation | GCA\_005864375.1 | GCF\_005864375.1 | identical | 413925 | 413925 |
| GCF\_900163535.1 | ASM90016353v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJEB19183 | 374431 | PRJNA224116 | 224116 | SAMEA80353168 | 6358802 | strain | S7 | 448 | MICALIS | na | full-genome-representation | GCA\_900163535.1 | GCF\_900163535.1 | identical | 405883 | 405883 |
| GCF\_001436795.1 | ASM143679v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA222257 | 222257 | PRJNA224116 | 224116 | SAMN02797809 | 2797809 | strain | AS1.2696 | 100 | Shanghai Majorbio | na | full-genome-representation | GCA\_001436795.1 | GCF\_001436795.1 | identical | 405421 | 405421 |
| GCF\_011800215.1 | ASM1180021v1 | 1683697 | Pediococcus sp. EKM201D (firmicutes) | 1683697 | Pediococcus sp. EKM201D | Scaffold | PRJNA605474 | 605474 | PRJNA224116 | 224116 | SAMN14070316 | 14070316 | strain | EKM201D | 227 | University of Guelph | na | full-genome-representation | GCA\_011800215.1 | GCF\_011800215.1 | identical | 401933 | 440959 |
| GCF\_011009615.1 | ASM1100961v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA517196 | 517196 | PRJNA224116 | 224116 | SAMN10822534 | 10822534 | strain | B4 | 15 | University of Surrey | na | full-genome-representation | GCA\_011009615.1 | GCF\_011009615.1 | identical | 396170 | 396170 |
| GCF\_000235805.1 | ASM23580v2 | 1080365 | Pediococcus acidilactici MA18/5M (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA72773 | 72773 | PRJNA224116 | 224116 | SAMN02469945 | 2469945 | strain | MA18/5M | 33 | Institut Rosell Lallemand Inc. | na | full-genome-representation | GCA\_000235805.2 | GCF\_000235805.1 | identical | 395998 | 395998 |
| GCF\_009808645.1 | ASM980864v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Scaffold | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008395 | 13008395 | strain | FAM18321 | 15 | Agroscope | na | full-genome-representation | GCA\_009808645.1 | GCF\_009808645.1 | identical | 389150 | 389150 |
| GCF\_004353295.1 | ASM435329v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA525615 | 525615 | PRJNA224116 | 224116 | SAMN11054835 | 11054835 | strain | MZF16 | 109 | University of Rouen Normandie | na | full-genome-representation | GCA\_004353295.1 | GCF\_004353295.1 | identical | 364301 | 364301 |
| GCF\_009809665.1 | ASM980966v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008343 | 13008343 | strain | FAM13073 | 15 | Agroscope | na | full-genome-representation | GCA\_009809665.1 | GCF\_009809665.1 | identical | 335313 | 335313 |
| GCF\_002553675.1 | ASM255367v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA412075 | 412075 | PRJNA224116 | 224116 | SAMN07702371 | 7702371 | strain | UMNPBX20 | 50 | University of Minnesota | na | full-genome-representation | GCA\_002553675.1 | GCF\_002553675.1 | identical | 326728 | 326728 |
| GCF\_005864405.1 | ASM586440v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Scaffold | PRJNA543085 | 543085 | PRJNA224116 | 224116 | SAMN11653952 | 11653952 | strain | FAM 19144 | 23 | Agroscope | na | full-genome-representation | GCA\_005864405.1 | GCF\_005864405.1 | identical | 325547 | 325547 |
| GCF\_011009695.1 | ASM1100969v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA517196 | 517196 | PRJNA224116 | 224116 | SAMN10822530 | 10822530 | strain | E24 | 15 | University of Surrey | na | full-genome-representation | GCA\_011009695.1 | GCF\_011009695.1 | identical | 318866 | 318866 |
| GCF\_011009715.1 | ASM1100971v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA517196 | 517196 | PRJNA224116 | 224116 | SAMN10822531 | 10822531 | strain | F7 | 15 | University of Surrey | na | full-genome-representation | GCA\_011009715.1 | GCF\_011009715.1 | identical | 318866 | 318866 |
| GCF\_004099675.1 | ASM409967v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA515210 | 515210 | PRJNA224116 | 224116 | SAMN10744163 | 10744163 | strain | L8-A | 142 | Texas Tech University | na | full-genome-representation | GCA\_004099675.1 | GCF\_004099675.1 | identical | 315444 | 315444 |
| GCF\_004099815.1 | ASM409981v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA515210 | 515210 | PRJNA224116 | 224116 | SAMN10744156 | 10744156 | strain | L2-A | 214 | Texas Tech University | na | full-genome-representation | GCA\_004099815.1 | GCF\_004099815.1 | identical | 315282 | 315282 |
| GCF\_009808085.1 | ASM980808v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008308 | 13008308 | strain | FAM19169 | 17 | Agroscope | na | full-genome-representation | GCA\_009808085.1 | GCF\_009808085.1 | identical | 310705 | 310705 |
| GCF\_009808845.1 | ASM980884v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Scaffold | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008385 | 13008385 | strain | FAM18813 | 16 | Agroscope | na | full-genome-representation | GCA\_009808845.1 | GCF\_009808845.1 | identical | 308715 | 308715 |
| GCF\_009910835.1 | ASM991083v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA544274 | 544274 | PRJNA224116 | 224116 | SAMN11831832 | 11831832 | strain | E1 | 20 | University of Surrey | na | full-genome-representation | GCA\_009910835.1 | GCF\_009910835.1 | identical | 298407 | 298407 |
| GCF\_011009675.1 | ASM1100967v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA517196 | 517196 | PRJNA224116 | 224116 | SAMN10822532 | 10822532 | strain | I32 | 15 | University of Surrey | na | full-genome-representation | GCA\_011009675.1 | GCF\_011009675.1 | identical | 298407 | 298407 |
| GCF\_009808815.1 | ASM980881v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Scaffold | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008387 | 13008387 | strain | FAM20650 | 34 | Agroscope | na | full-genome-representation | GCA\_009808815.1 | GCF\_009808815.1 | identical | 297252 | 297252 |
| GCF\_007992275.1 | ASM799227v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJDB6300 | 400723 | PRJNA224116 | 224116 | SAMD00172662 | 11843515 | strain | NBRC 107768 | 141 | National Institute of Technology and Evaluation Biological Resource Center | na | full-genome-representation | GCA\_007992275.1 | GCF\_007992275.1 | identical | 295778 | 295778 |
| GCF\_013385165.1 | ASM1338516v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA641973 | 641973 | PRJNA224116 | 224116 | SAMN15374531 | 15374531 | strain | TUCO-3 | 476 | CERELA | na | full-genome-representation | GCA\_013385165.1 | GCF\_013385165.1 | identical | 295212 | 295212 |
| GCF\_002724015.1 | ASM272401v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJDB6040 | 396350 | PRJNA224116 | 224116 | SAMD00093675 | 7768543 | strain | NBRC 3182 | 107 | National Institute of Technology and Evaluation Biological Resource Center | na | full-genome-representation | GCA\_002724015.1 | GCF\_002724015.1 | identical | 291756 | 291756 |
| GCF\_011800255.1 | ASM1180025v1 | 1683698 | Pediococcus sp. EKM202D (firmicutes) | 1683698 | Pediococcus sp. EKM202D | Scaffold | PRJNA605474 | 605474 | PRJNA224116 | 224116 | SAMN14070325 | 14070325 | strain | EKM202D | 235 | University of Guelph | na | full-genome-representation | GCA\_011800255.1 | GCF\_011800255.1 | identical | 287348 | 440287 |
| GCF\_013249135.1 | ASM1324913v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA574342 | 574342 | PRJNA224116 | 224116 | SAMN14848240 | 14848240 | strain | BIO6314 | 876 | Bioprox | na | full-genome-representation | GCA\_013249135.1 | GCF\_013249135.1 | identical | 270087 | 270087 |
| GCF\_013375165.1 | Unicycler | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA640898 | 640898 | PRJNA224116 | 224116 | SAMN15337232 | 15337232 | strain | IRZ12B | 258 | Padova university | na | full-genome-representation | GCA\_013375165.1 | GCF\_013375165.1 | identical | 259848 | 2024645 |
| GCF\_004115445.1 | ASM411544v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Scaffold | PRJNA513828 | 513828 | PRJNA224116 | 224116 | SAMN10721079 | 10721079 | strain | 6\_1 | 521 | Beijing Technology and Business University | na | full-genome-representation | GCA\_004115445.1 | GCF\_004115445.1 | identical | 245036 | 245036 |
| GCF\_001672605.1 | ASM167260v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA321943 | 321943 | PRJNA224116 | 224116 | SAMN05162513 | 5162513 | strain | SRCM100320 | 758 | Microbial Institue for Fermentation Industry | na | full-genome-representation | GCA\_001672605.1 | GCF\_001672605.1 | identical | 230691 | 230691 |
| GCF\_000380265.1 | PAD3\_1.0 | 1306952 | Pediococcus acidilactici D3 (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA193440 | 193440 | PRJNA224116 | 224116 | SAMN01991044 | 1991044 | strain | D3 | 567 | Texas A&M University | na | full-genome-representation | GCA\_000380265.1 | GCF\_000380265.1 | identical | 224342 | 1865805 |
| GCF\_006539025.1 | ASM653902v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJDB6046 | 396356 | PRJNA224116 | 224116 | SAMD00097159 | 12056569 | strain | NBRC 12231 | 298 | National Institute of Technology and Evaluation Biological Resource Center | na | full-genome-representation | GCA\_006539025.1 | GCF\_006539025.1 | identical | 212397 | 212397 |
| GCF\_000163095.1 | ASM16309v1 | 563194 | Pediococcus acidilactici 7\_4 (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA40051 | 40051 | PRJNA224116 | 224116 | SAMN02463809 | 2463809 | strain | 7\_4 | 0 | Broad Institute | na | full-genome-representation | GCA\_000163095.1 | GCF\_000163095.1 | identical | 174286 | 384055 |
| GCF\_007989045.1 | ASM798904v1 | 319652 | Pediococcus cellicola (firmicutes) | 319652 | Pediococcus cellicola | Contig | PRJDB6231 | 399657 | PRJNA224116 | 224116 | SAMD00166038 | 11282932 | strain | NBRC 106103 | 289 | National Institute of Technology and Evaluation Biological Resource Center | na | full-genome-representation | GCA\_007989045.1 | GCF\_007989045.1 | identical | 160900 | 160900 |
| GCF\_003571945.1 | ASM357194v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA478800 | 478800 | PRJNA224116 | 224116 | SAMN09531784 | 9531784 | strain | GS1 | 120 | Kangwon Natl. Univ. | na | full-genome-representation | GCA\_003571945.1 | GCF\_003571945.1 | identical | 157835 | 157835 |
| GCF\_004100005.1 | ASM410000v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA515210 | 515210 | PRJNA224116 | 224116 | SAMN10744148 | 10744148 | strain | L14-B | 67 | Texas Tech University | na | full-genome-representation | GCA\_004100005.1 | GCF\_004100005.1 | identical | 149555 | 149555 |
| GCF\_009809195.1 | ASM980919v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008369 | 13008369 | strain | FAM17622 | 18 | Agroscope | na | full-genome-representation | GCA\_009809195.1 | GCF\_009809195.1 | identical | 131018 | 131018 |
| GCF\_003591195.1 | ASM359119v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA479750 | 479750 | PRJNA224116 | 224116 | SAMN09604260 | 9604260 | strain | WT | 160 | Kangwon Natl. Univ. | na | full-genome-representation | GCA\_003591195.1 | GCF\_003591195.1 | identical | 129826 | 129826 |
| GCF\_005864415.1 | ASM586441v1 | 331679 | Pediococcus stilesii (firmicutes) | 331679 | Pediococcus stilesii | Scaffold | PRJNA543085 | 543085 | PRJNA224116 | 224116 | SAMN11653953 | 11653953 | strain | FAM 18815 | 13 | Agroscope | na | full-genome-representation | GCA\_005864415.1 | GCF\_005864415.1 | identical | 120403 | 120403 |
| GCF\_001593095.1 | ASM159309v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA310676 | 310676 | PRJNA224116 | 224116 | SAMN04453291 | 4453291 | strain | FBL2 | 522 | Kyunghee University | na | full-genome-representation | GCA\_001593095.1 | GCF\_001593095.1 | identical | 117020 | 117020 |
| GCF\_000285875.1 | ASM28587v1 | 1133596 | Pediococcus pentosaceus IE-3 (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJEA80991 | 80991 | PRJNA224116 | 224116 | SAMEA2272526 | 2484174 | strain | IE-3 | 0 | Institute of Microbial Technology (CSIR) | na | full-genome-representation | GCA\_000285875.1 | GCF\_000285875.1 | identical | 115249 | 115249 |
| GCF\_009809485.1 | ASM980948v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008353 | 13008353 | strain | FAM19083 | 27 | Agroscope | na | full-genome-representation | GCA\_009809485.1 | GCF\_009809485.1 | identical | 102521 | 102521 |
| GCF\_009809425.1 | ASM980942v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008356 | 13008356 | strain | FAM19080 | 21 | Agroscope | na | full-genome-representation | GCA\_009809425.1 | GCF\_009809425.1 | identical | 93775 | 93775 |
| GCF\_009809875.1 | ASM980987v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Scaffold | PRJNA576774 | 576774 | PRJNA224116 | 224116 | SAMN13008333 | 13008333 | strain | FAM19086 | 15 | Agroscope | na | full-genome-representation | GCA\_009809875.1 | GCF\_009809875.1 | identical | 91657 | 91657 |
| GCF\_001748065.1 | ASM174806v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Scaffold | PRJDB4140 | 338436 | PRJNA224116 | 224116 | SAMD00036446 | 5554234 | strain | LP28 | 155 | Department of Molecular Biology and Biotechnology, Graduate School of Biomedical and Health Sciences, Hiroshima University | na | full-genome-representation | GCA\_001748065.1 | GCF\_001748065.1 | identical | 87139 | 1774865 |
| GCF\_001634455.1 | ASM163445v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA308163 | 308163 | PRJNA224116 | 224116 | SAMN04387728 | 4387728 | strain | NRCC1 | 197 | ICAR-National Research Centre on Camel | na | full-genome-representation | GCA\_001634455.1 | GCF\_001634455.1 | identical | 78213 | 78213 |
| GCF\_001541865.1 | ASM154186v1 | 1255 | Pediococcus pentosaceus (firmicutes) | 1255 | Pediococcus pentosaceus | Contig | PRJNA308373 | 308373 | PRJNA224116 | 224116 | SAMN04395033 | 4395033 | strain | NKYL15 | 100 | Institute of Subtropical Agriculture, Chinese Academy of Sciences | na | full-genome-representation | GCA\_001541865.1 | GCF\_001541865.1 | identical | 75916 | 75916 |
| GCF\_002770665.1 | ASM277066v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Scaffold | PRJNA354877 | 354877 | PRJNA224116 | 224116 | SAMN06053758 | 6053758 | strain | VTT E-123212 | 50 | University of Saskatchewan | na | full-genome-representation | GCA\_002770665.1 | GCF\_002770665.1 | identical | 74067 | 2024786 |
| GCF\_001641385.1 | ASM164138v1 | 114090 | Pediococcus inopinatus (firmicutes) | 114090 | Pediococcus inopinatus | Contig | PRJDB2940 | 317444 | PRJNA224116 | 224116 | SAMD00018420 | 4606822 | strain | Wikim15 | 552 | World Institute of Kimchi | na | full-genome-representation | GCA\_001641385.1 | GCF\_001641385.1 | identical | 69828 | 69828 |
| GCF\_001638245.1 | ASM163824v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA309020 | 309020 | PRJNA224116 | 224116 | SAMN04419358 | 4419358 | strain | NRCC3 | 20 | ICAR-National Research Centre on Camel | na | full-genome-representation | GCA\_001638245.1 | GCF\_001638245.1 | identical | 58553 | 58553 |
| GCF\_007991575.1 | ASM799157v1 | 319653 | Pediococcus ethanolidurans (firmicutes) | 319653 | Pediococcus ethanolidurans | Contig | PRJDB6232 | 399658 | PRJNA224116 | 224116 | SAMD00170759 | 11603097 | strain | NBRC 106104 | 108 | National Institute of Technology and Evaluation Biological Resource Center | na | full-genome-representation | GCA\_007991575.1 | GCF\_007991575.1 | identical | 56913 | 56913 |
| GCF\_001461015.1 | ASM146101v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA296933 | 296933 | PRJNA224116 | 224116 | SAMN04111307 | 4111307 | strain | S1 | 531 | Shin's Lab., Kyungpook National University | na | full-genome-representation | GCA\_001461015.1 | GCF\_001461015.1 | identical | 55717 | 55717 |
| GCF\_001640785.1 | ASM164078v1 | 54062 | Pediococcus parvulus (firmicutes) | 54062 | Pediococcus parvulus | Contig | PRJNA320830 | 320830 | PRJNA224116 | 224116 | SAMN04958102 | 4958102 | strain | 2.6 | 1000 | Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria (CREA) | na | full-genome-representation | GCA\_001640785.1 | GCF\_001640785.1 | identical | 51115 | 51115 |
| GCF\_002770635.1 | ASM277063v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Scaffold | PRJNA354877 | 354877 | PRJNA224116 | 224116 | SAMN06053759 | 6053759 | strain | VTT E-123216 | 50 | University of Saskatchewan | na | full-genome-representation | GCA\_002770635.1 | GCF\_002770635.1 | identical | 43620 | 2086833 |
| GCF\_002787675.1 | ASM278767v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Scaffold | PRJNA354877 | 354877 | PRJNA224116 | 224116 | SAMN06053757 | 6053757 | strain | P58 | 30 | University of Saskatchewan | na | full-genome-representation | GCA\_002787675.1 | GCF\_002787675.1 | identical | 43387 | 2087995 |
| GCF\_007992295.1 | ASM799229v1 | 480391 | Pediococcus argentinicus (firmicutes) | 480391 | Pediococcus argentinicus | Contig | PRJDB6301 | 400724 | PRJNA224116 | 224116 | SAMD00172663 | 11843516 | strain | NBRC 107827 | 137 | National Institute of Technology and Evaluation Biological Resource Center | na | full-genome-representation | GCA\_007992295.1 | GCF\_007992295.1 | identical | 42089 | 42089 |
| GCF\_001634445.1 | ASM163444v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA308165 | 308165 | PRJNA224116 | 224116 | SAMN04387731 | 4387731 | strain | NRCC2 | 53.4 | ICAR-National Research Centre on Camel | na | full-genome-representation | GCA\_001634445.1 | GCF\_001634445.1 | identical | 26857 | 26857 |
| GCF\_000962875.1 | ASM96287v1 | 1448143 | Pediococcus damnosus LMG 28219 (firmicutes) | 51663 | Pediococcus damnosus | Contig | PRJNA234374 | 234374 | PRJNA224116 | 224116 | SAMN02592738 | 2592738 | strain | LMG 28219 | 270 | Ghent University | na | full-genome-representation | GCA\_000962875.1 | GCF\_000962875.1 | identical | 24659 | 24659 |
| GCF\_006538785.1 | ASM653878v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Contig | PRJDB6044 | 396354 | PRJNA224116 | 224116 | SAMD00093694 | 12056557 | strain | NBRC 3889 | 91 | National Institute of Technology and Evaluation Biological Resource Center | na | full-genome-representation | GCA\_006538785.1 | GCF\_006538785.1 | identical | 20348 | 20348 |
| GCF\_004022295.1 | ASM402229v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Scaffold | PRJNA512885 | 512885 | PRJNA224116 | 224116 | SAMN10690227 | 10690227 | strain | LPBC161 | 11 | UFPR | na | full-genome-representation | GCA\_004022295.1 | GCF\_004022295.1 | identical | 18140 | 19488 |
| GCF\_011009585.1 | ASM1100958v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA517196 | 517196 | PRJNA224116 | 224116 | SAMN10822533 | 10822533 | strain | M16 | 5 | University of Surrey | na | full-genome-representation | GCA\_011009585.1 | GCF\_011009585.1 | identical | 11317 | 11317 |
| GCF\_001636135.1 | ASM163613v1 | 51663 | Pediococcus damnosus (firmicutes) | 51663 | Pediococcus damnosus | Scaffold | PRJNA309620 | 309620 | PRJNA224116 | 224116 | SAMN04437152 | 4437152 | strain | BM-PD14610 | 400 | South China University of Technology | na | full-genome-representation | GCA\_001636135.1 | GCF\_001636135.1 | identical | 8404 | 12875 |
| GCF\_001868705.1 | ASM186870v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA344012 | 344012 | PRJNA224116 | 224116 | SAMN05804765 | 5804765 | strain | JKY18 | 788 | Anhui University | na | excluded-from-refseq | GCA\_001868705.1 | GCF\_001868705.1 | identical | 1643836 | 1643836 |
| GCA\_009761085.1 | ASM976108v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA434783 | 434783 |  |  | SAMN08574375 | 8574375 | strain | NCDC 252 | 30 | KURUKSHETRA UNIVERSITY KURUKSHETRA | na | excluded-from-refseq | GCA\_009761085.1 |  |  | 358821 | 358821 |
| GCF\_001294765.1 | PedAciK3 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA293918 | 293918 | PRJNA224116 | 224116 | SAMN04011952 | 4011952 | strain | K3 | 385 | Shin's Lab., Kyungpook National University | na | excluded-from-refseq | GCA\_001294765.1 | GCF\_001294765.1 | identical | 78870 | 78870 |
| GCF\_001867265.1 | ASM186726v1 | 1254 | Pediococcus acidilactici (firmicutes) | 1254 | Pediococcus acidilactici | Contig | PRJNA336459 | 336459 | PRJNA224116 | 224116 | SAMN05510866 | 5510866 | strain | NRCC4 | 12 | ICAR-National Research Centre on Camel | na | excluded-from-refseq | GCA\_001867265.1 | GCF\_001867265.1 | identical | 9323 | 9323 |