

**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	BioprojectAccession	BioprojectID	BioprojectAccession2	BioprojectID3	BioSampleAccession	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	DSM20285	39694	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	TMW2.1536	137	Technische Universität 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	48233	Probiotics Microbiome Convergence Center	representative genome	full-genome-representation	GCA_001312775.1	GCF_001312775.1	identical	2044083	2044083
GCF_001702215.1	ASM170221v1	187452	Pediococcus clausenii (firmicutes)	187452	Pediococcus clausenii	Complete Genome	PRJNA290141	290141	PRJNA224116	224116	SAMN04505731	4505731	strain	TMW2.53	192	Technische Universität 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)	278197	Pediococcus pentosaceus	Complete Genome	PRJNA398	398	PRJNA224116	224116	SAMN02598525	2598525	strain	ATC25745	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 cellicolus (firmicutes)	319652	Pediococcus cellicolus	Contig	PRJNA222257	222257	PRJNA224116	224116	SAMN02797811	2797811	strain	DSM17757	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	DSM18001	100	Shanghai Majorbio	representative genome	from-type	GCA_001437075.1	GCF_001437075.1	identical	98964	98964

GCF_001 437405.1	ASM14 3740v1	319 653	Pediococcus ethanolans (firmicutes)	31965 3	Pediococcus ethanolans	Contig	PRJNA 222257	22225 7	PRJNA 224116	22411 6	SAMN0 2797818	27978 18	strain	DSM 22301	100	Shanghai Majorbio	representative genome	from-type	GCA_0 0143740 5.1	GCF_00 1437405 .1	identical	9484 8	94848
GCF_012 396535.1	ASM12 39653v1	480 391	Pediococcus argentinicus (firmicutes)	48039 1	Pediococcus argentinicus	Contig	PRJNA 622446	62244 6	PRJNA 224116	22411 6	SAMN1 4517845	14517 845	strain	CCU G 54535	199	Bacterial Special Pathogens Branch (CDC)	representative genome	from-type	GCA_0 1239653 5.1	GCF_01 2396535 .1	identical	4751 7	47517
GCF_007 990205.1	ASM79 9020v1	540 62	Pediococcus parvulus (firmicutes)	54062	Pediococcus parvulus	Contig	PRJDB 6092	39640 2	PRJNA 224116	22411 6	SAMD0 0166260	11337 974	strain	NBR C 10067 3	124	National Institute of Technology and Evaluation	representative genome	from-type	GCA_0 0799020 5.1	GCF_00 7990205 .1	identical	4021 0	40210
GCF_000 237995.1	ASM23 799v2	701 521	Pediococcus claussenii ATCC BAA-344 (firmicutes)	18745 2	Pediococcus claussenii	Complete Genome	PRJNA 42741	42741	PRJNA 224116	22411 6	SAMN0 2604240	26042 40	strain	ATC C BAA-344	0	University of Saskatchewan	na	from-type	GCA_0 0023799 5.2	GCF_00 0237995 .1	identical	1829 111	18291 11
GCF_001 611135.1	ASM16 1113v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Complete Genome	PRJNA 290141	29014 1	PRJNA 224116	22411 6	SAMN0 3876484	38764 84	strain	TMW 2.153 5	142	Technische Universitaet Muenchen	na	full-genome representation	GCA_0 0161113 5.1	GCF_00 1611135 .1	identical	2247 318	22473 18
GCF_001 611115.1	ASM16 1111v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Complete Genome	PRJNA 290141	29014 1	PRJNA 224116	22411 6	SAMN0 3876483	38764 83	strain	TMW 2.153 4	138	Technische Universitaet Muenchen	na	full-genome representation	GCA_0 0161111 5.1	GCF_00 1611115 .1	identical	2172 287	21722 87
GCF_001 611075.1	ASM16 1107v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Complete Genome	PRJNA 290141	29014 1	PRJNA 224116	22411 6	SAMN0 3876482	38764 82	strain	TMW 2.153 3	92	Technische Universitaet Muenchen	na	full-genome representation	GCA_0 0161107 5.1	GCF_00 1611075 .1	identical	2149 374	21493 74
GCF_001 767275.1	ASM17 6727v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 312971	31297 1	PRJNA 224116	22411 6	SAMN0 4515708	45157 08	strain	ZPA0 17	0	Beijing Academy of Agriculture and Forestry Sciences	na	full-genome representation	GCA_0 0176727 5.1	GCF_00 1767275 .1	identical	2131 361	21313 61

GCF_001 922325.1	ASM19 2232v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 357663	35766 3	PRJNA 224116	22411 6	SAMN0 6052263	60522 63	strain	BCC1	415	China Agricultural University	na	full- genome- representation	GCA_0 0192232 5.1	GCF_00 1922325 .1	identical	2096 059	20960 59
GCF_006 770685.1	ASM67 7068v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 412124	41212 4	PRJNA 224116	22411 6	SAMN0 7701376	77013 76	strain	JQII-5	200	BGI	na	full- genome- representation	GCA_0 0677068 5.1	GCF_00 6770685 .1	identical	2085 679	20856 79
GCF_001 611035.1	ASM16 1103v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Complete Genome	PRJNA 290141	29014 1	PRJNA 224116	22411 6	SAMN0 3876481	38764 81	strain	TMW 2.153 2	144	Technische Universitaet Muenchen	na	full- genome- representation	GCA_0 0161103 5.1	GCF_00 1611035 .1	identical	2073 735	20737 35
GCF_011 604585.1	ASM11 60458v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 612145	61214 5	PRJNA 224116	22411 6	SAMN1 4362951	14362 951	strain	PMC 48	209. 81	Probiotics Microbiome Convergence Center	na	full- genome- representation	GCA_0 1160458 5.1	GCF_01 1604585 .1	identical	2043 929	20439 29
GCF_010 092385.1	ASM10 09238v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 601629	60162 9	PRJNA 224116	22411 6	SAMN1 3871425	13871 425	strain	CAC C 537	12	Center for Industrializa- tion of Agricultural and Livestock Microorga- nisms	na	full- genome- representation	GCA_0 1009238 5.1	GCF_01 0092385 .1	identical	2035 984	20359 84
GCF_002 174215.1	ASM21 7421v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 388027	38802 7	PRJNA 224116	22411 6	SAMN0 7167785	71677 85	strain	SRC M101 189	133 8	Microbial Institute for Fermentation Industry	na	full- genome- representation	GCA_0 0217421 5.1	GCF_00 2174215 .1	identical	2025 732	20257 32
GCF_002 173575.1	ASM21 7357v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 386762	38676 2	PRJNA 224116	22411 6	SAMN0 7126147	71261 47	strain	SRC M100 424	628	Microbial Institute for Fermentation Industry	na	full- genome- representation	GCA_0 0217357 5.1	GCF_00 2173575 .1	identical	2025 714	20257 14
GCF_002 173595.1	ASM21 7359v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 386761	38676 1	PRJNA 224116	22411 6	SAMN0 7125954	71259 54	strain	SRC M100 313	607	Microbial Institute for Fermentation Industry	na	full- genome- representation	GCA_0 0217359 5.1	GCF_00 2173595 .1	identical	2025 575	20255 75
GCF_009 913895.1	ASM99 1389v1	125 4	Pediococcus acidilactici	1254	Pediococcus acidilactici	Complete Genome	PRJNA 438180	43818 0	PRJNA 224116	22411 6	SAMN0 8707607	87076 07	strain	SRC M102 732	447	Microbial Institute for Fermentation	na	full- genome- representation	GCA_0 0991389 5.1	GCF_00 9913895 .1	identical	2018 117	20181 17

			(firmicutes)												on Industry		entation						
GCF_009 913875.1	ASM99 1387v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 438180	438180	PRJNA 224116	224116	SAMN0 8707606	8707606	strain	SRC M102 731	355	Microbial Institute for Fermentation Industry	na	full-genome representation	GCA_0 0991387 5.1	GCF_00 9913875 .1	identical	2015 015	20150 15
GCF_004 355265.1	ASM43 5526v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 503305	503305	PRJNA 224116	224116	SAMN1 0358339	10358339	strain	ATC C 8042	531	Seoul National University	na	full-genome representation	GCA_0 0435526 5.1	GCF_00 4355265 .1	identical	2009 598	20095 98
GCF_004 101585.1	ASM41 0158v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 515148	515148	PRJNA 224116	224116	SAMN1 0743318	10743318	strain	SRC M103 387	310. 93	Microbial Institute for Fermentation Industry	na	full-genome representation	GCA_0 0410158 5.1	GCF_00 4101585 .1	identical	2001 079	20010 79
GCF_004 103635.1	ASM41 0363v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 515377	515377	PRJNA 224116	224116	SAMN1 0754287	10754287	strain	SRC M103 444	346. 26	Microbial Institute for Fermentation Industry	na	full-genome representation	GCA_0 0410363 5.1	GCF_00 4103635 .1	identical	1970 727	19707 27
GCF_003 957355.1	ASM39 5735v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 422477	422477	PRJNA 224116	224116	SAMN0 8180273	8180273	strain			Korea Food Research Institute	na	full-genome representation	GCA_0 0395735 5.1	GCF_00 3957355 .1	identical	1955 616	19556 16
GCF_001 702235.1	ASM17 0223v1	187 452	Pediococcus clausenii (firmicutes)	187452	Pediococcus clausenii	Complete Genome	PRJNA 290141	290141	PRJNA 224116	224116	SAMN0 4505732	4505732	strain	TMW 2.54	146	Technische Universitaet Muenchen	na	full-genome representation	GCA_0 0170223 5.1	GCF_00 1702235 .1	identical	1886 832	18868 32
GCF_004 102605.1	ASM41 0260v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Complete Genome	PRJNA 515147	515147	PRJNA 224116	224116	SAMN1 0743317	10743317	strain	SRC M103 367	234. 7	Microbial Institute for Fermentation Industry	na	full-genome representation	GCA_0 0410260 5.1	GCF_00 4102605 .1	identical	1852 892	18528 92
GCF_007 923185.1	ASM79 2318v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Complete Genome	PRJNA 526333	526333	PRJNA 224116	224116	SAMN1 1094516	11094516	strain		575 8	Hunan Normal University	na	full-genome representation	GCA_0 0792318 5.1	GCF_00 7923185 .1	identical	1842 476	18424 76
GCF_009 791435.1	ASM97 9143v1	125 5	Pediococcus pentosaceus	1255	Pediococcus	Complete	PRJNA 596038	596038	PRJNA 224116	224116	SAMN1 3611447	13611447	strain	GDIA S001	250	Guangdong Academy	na	full-genome	GCA_0 0979143 5.1	GCF_00 9791435 .1	identical	1831 351	18313 51

			aceus (firmic utes)		pentos aceus	Genom e									of Agricultur al Sciences		repres entati on						
GCF_009 914035.1	ASM99 1403v1	125 5	Pedioc occus pentos aceus (firmic utes)	1255	Pedioc occus pentos aceus	Compl ete Genom e	PRJNA 438180	43818 0	PRJNA 224116	22411 6	SAMN0 8707615	87076 15	strai n	SRC M102 740	789	Microbial Institute for Fermentati on Industry	na	full- geno me- repres entati on	GCA_0 0991403 5.1	GCF_00 9914035 .1	iden tical	1818 150	18181 50
GCF_009 913995.1	ASM99 1399v1	125 5	Pedioc occus pentos aceus (firmic utes)	1255	Pedioc occus pentos aceus	Compl ete Genom e	PRJNA 438180	43818 0	PRJNA 224116	22411 6	SAMN0 8707613	87076 13	strai n	SRC M102 738	750	Microbial Institute for Fermentati on Industry	na	full- geno me- repres entati on	GCA_0 0991399 5.1	GCF_00 9913995 .1	iden tical	1818 149	18181 49
GCF_009 914015.1	ASM99 1401v1	125 5	Pedioc occus pentos aceus (firmic utes)	1255	Pedioc occus pentos aceus	Compl ete Genom e	PRJNA 438180	43818 0	PRJNA 224116	22411 6	SAMN0 8707614	87076 14	strai n	SRC M102 739	362	Microbial Institute for Fermentati on Industry	na	full- geno me- repres entati on	GCA_0 0991401 5.1	GCF_00 9914015 .1	iden tical	1818 149	18181 49
GCF_000 496265.1	ASM49 626v1	140 820 6	Pedioc occus pentos aceus SL4 (firmic utes)	1255	Pedioc occus pentos aceus	Compl ete Genom e	PRJNA 222573	22257 3	PRJNA 224116	22411 6	SAMN0 2603952	26039 52	strai n	SL4	370 0	The Technical University of Denmark	na	full- geno me- repres entati on	GCA_0 0049626 5.1	GCF_00 0496265 .1	iden tical	1789 138	17891 38
GCF_002 173535.1	ASM21 7353v1	125 5	Pedioc occus pentos aceus (firmic utes)	1255	Pedioc occus pentos aceus	Compl ete Genom e	PRJNA 386763	38676 3	PRJNA 224116	22411 6	SAMN0 7126152	71261 52	strai n	SRC M100 892	594	Microbial Institiue for Fermentati on Industry	na	full- geno me- repres entati on	GCA_0 0217353 5.1	GCF_00 2173535 .1	iden tical	1785 266	17852 66
GCF_002 982155.1	ASM29 8215v1	125 5	Pedioc occus pentos aceus (firmic utes)	1255	Pedioc occus pentos aceus	Compl ete Genom e	PRJNA 376813	37681 3	PRJNA 224116	22411 6	SAMN0 6447729	64477 29	strai n	KCC M 40703	460. 75	Kyungpoo k National University	na	full- geno me- repres entati on	GCA_0 0298215 5.1	GCF_00 2982155 .1	iden tical	1758 362	17583 62
GCF_002 202155.1	ASM22 0215v1	125 5	Pedioc occus pentos aceus (firmic utes)	1255	Pedioc occus pentos aceus	Compl ete Genom e	PRJNA 390207	39020 7	PRJNA 224116	22411 6	SAMN0 7224387	72243 87	strai n	SRC M100 194	264 3	Microbial Institute for Fermentati on Industry	na	full- geno me- repres entati on	GCA_0 0220215 5.1	GCF_00 2202155 .1	iden tical	1757 573	17575 73
GCF_009 913955.1	ASM99 1395v1	125 5	Pedioc occus pentos aceus (firmic utes)	1255	Pedioc occus pentos aceus	Compl ete Genom e	PRJNA 438180	43818 0	PRJNA 224116	22411 6	SAMN0 8707611	87076 11	strai n	SRC M102 736	568	Microbial Institute for Fermentati on Industry	na	full- geno me- repres entati on	GCA_0 0991395 5.1	GCF_00 9913955 .1	iden tical	1756 764	17567 64

GCF_003 429405.1	ASM34 2940v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Complete Genome	PRJNA 399825	39982 5	PRJNA 224116	22411 6	SAMN0 7551496	75514 96	strain SS1-3	341	Korea Food Research Institute	na	full- genome- representation	GCA_0 0342940 5.1	GCF_00 3429405 .1	identical	1752 312	17523 12
GCF_001 411765.2	ASM14 1176v2	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Complete Genome	PRJNA 260124	26012 4	PRJNA 224116	22411 6	SAMN0 4017317	40173 17	strain wiki m20	621. 6	WIKIM	na	full- genome- representation	GCA_0 0141176 5.2	GCF_00 1411765 .2	identical	1739 283	17392 83
GCF_006 770865.1	ASM67 7086v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Complete Genome	PRJNA 412135	41213 5	PRJNA 224116	22411 6	SAMN0 7701459	77014 59	strain JQI-7	200	BGI	na	full- genome- representation	GCA_0 0677086 5.1	GCF_00 6770865 .1	identical	1732 880	17328 80
GCF_009 930955.1	ASM99 3095v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Complete Genome	PRJNA 438180	43818 0	PRJNA 224116	22411 6	SAMN0 8707609	87076 09	strain SRC M102 734	487	Microbial Institute for Fermentation Industry	na	full- genome- representation	GCA_0 0993095 5.1	GCF_00 9930955 .1	identical	1707 614	17076 14
GCF_000 146325.1	ASM14 632v1	862 514	Pediococcus acidilactici DSM 20284 (firmicutes)	1254	Pediococcus acidilactici	Scaffold	PRJNA 50527	50527	PRJNA 224116	22411 6	SAMN0 0116807	11680 7	strain DSM 20284	130	Baylor College of Medicine	na	from- type	GCA_0 0014632 5.1	GCF_00 0146325 .1	identical	4250 94	19376 22
GCF_012 396515.1	ASM12 39651v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 622446	62244 6	PRJNA 224116	22411 6	SAMN1 4517844	14517 844	strain CCU G 32235	162. 8	Bacterial Special Pathogens Branch (CDC)	na	from- type	GCA_0 1239651 5.1	GCF_01 2396515 .1	identical	4462 49	44624 9
GCF_001 437115.1	ASM14 3711v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Scaffold	PRJNA 222257	22225 7	PRJNA 224116	22411 6	SAMN0 2797813	27978 13	strain DSM 19927	100	Shanghai Majorbio	na	from- type	GCA_0 0143711 5.1	GCF_00 1437115 .1	identical	3188 66	31886 6
GCF_004 354495.1	ASM43 5449v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 434256	43425 6	PRJNA 224116	22411 6	SAMN0 8543181	85431 81	strain ATC C 33316	60	Carlsberg Research Laboratory	na	from- type	GCA_0 0435449 5.1	GCF_00 4354495 .1	identical	3023 47	30234 7
GCF_001 437285.1	ASM14 3728v1	125 5	Pediococcus pentosaceus	1255	Pediococcus pentosaceus	Contig	PRJNA 222257	22225 7	PRJNA 224116	22411 6	SAMN0 2797817	27978 17	strain DSM 20336	100	Shanghai Majorbio	na	from- type	GCA_0 0143728 5.1	GCF_00 1437285 .1	identical	2959 19	29591 9

			(firmicutes)																				
GCF_001 436905.1	ASM14 3690v1	187 452	Pediococcus clausenii (firmicutes)	18745 2	Pediococcus clausenii	Scaffold	PRJNA 222257	22225 7	PRJNA 224116	22411 6	SAMN0 2797810	27978 10	strain	DSM 14800	100	Shanghai Majorbio	na	from-type	GCA_0 0143690 5.1	GCF_00 1436905 .1	identical	2042 00	21983 8
GCF_000 319265.1	Plo_1.0	122 928 1	Pediococcus acidilactici NGRI 0510Q (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJDB 499	17440 8	PRJNA 224116	22411 6	SAMD0 0036646	40916 11	strain	NGRI 0510 Q	232	Microbial Genetics, Institute of Genetic Resources, Faculty of Agriculture, Kyushu University	na	from-type	GCA_0 0031926 5.1	GCF_00 0319265 .1	identical	1023 22	10232 2
GCF_900 111205.1	IMG-taxon 261727 0883 annotated assembly	319 653	Pediococcus ethanolidurans (firmicutes)	31965 3	Pediococcus ethanolidurans	Scaffold	PRJEB 17023	35120 7	PRJNA 224116	22411 6	SAMN0 4487973	44879 73	strain	CGM CC 1.388 9	624	DOE - JOINT GENOME INSTITUTE E	na	from-type	GCA_9 0011120 5.1	GCF_90 0111205 .1	identical	7443 3	10084 4
GCF_001 437605.1	ASM14 3760v1	480 391	Pediococcus argentinicus (firmicutes)	48039 1	Pediococcus argentinicus	Scaffold	PRJNA 222257	22225 7	PRJNA 224116	22411 6	SAMN0 2797819	27978 19	strain	DSM 23026	100	Shanghai Majorbio	na	from-type	GCA_0 0143760 5.1	GCF_00 1437605 .1	identical	4365 7	43657
GCF_001 438725.1	ASM14 3872v1	114 090	Pediococcus inopinatus (firmicutes)	11409 0	Pediococcus inopinatus	Contig	PRJNA 222257	22225 7	PRJNA 224116	22411 6	SAMN0 2797814	27978 14	strain	DSM 20285	100	Shanghai Majorbio	na	from-type	GCA_0 0143872 5.1	GCF_00 1438725 .1	identical	3792 3	37923
GCF_001 437255.1	ASM14 3725v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Contig	PRJNA 222257	22225 7	PRJNA 224116	22411 6	SAMN0 2797815	27978 15	strain	DSM 20331	100	Shanghai Majorbio	na	from-type	GCA_0 0143725 5.1	GCF_00 1437255 .1	identical	2085 9	20859
GCF_004 054355.1	ASM40 5435v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 514932	51493 2	PRJNA 224116	22411 6	SAMN1 0737798	10737 798	strain	SRC M 10328 9	393. 98	Chunlab	na	full-genome-representation	GCA_0 0405435 5.1	GCF_00 4054355 .1	identical	2022 494	20224 94
GCF_009 809595.1	ASM98 0959v1	125 5	Pediococcus pentosaceus	1255	Pediococcus pentosaceus	Contig	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008348	13008 348	strain	FAM 19132	124	Agroscope	na	full-genome-representation	GCA_0 0980959 5.1	GCF_00 9809595 .1	identical	1906 512	19065 12



			(firmicutes)															entation					
GCF_005 864375.1	ASM58 6437v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 543085	54308 5	PRJNA 224116	22411 6	SAMN1 1653951	11653 951	strain	FAM 18969	60	Agroscope	na	full-genome-representation	GCA_0 0586437 5.1	GCF_00 5864375 .1	identical	4139 25	41392 5
GCF_900 163535.1	ASM90 016353 v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJEB 19183	37443 1	PRJNA 224116	22411 6	SAMEA 8035316 8	63588 02	strain	S7	448	MICALIS	na	full-genome-representation	GCA_9 0016353 5.1	GCF_90 0163535 .1	identical	4058 83	40588 3
GCF_001 436795.1	ASM14 3679v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 222257	22225 7	PRJNA 224116	22411 6	SAMN0 2797809	27978 09	strain	AS1.2 696	100	Shanghai Majorbio	na	full-genome-representation	GCA_0 0143679 5.1	GCF_00 1436795 .1	identical	4054 21	40542 1
GCF_011 800215.1	ASM11 80021v 1	168 369 7	Pediococcus sp. EKM2 01D (firmicutes)	16836 97	Pediococcus sp. EKM2 01D	Scaffold	PRJNA 605474	60547 4	PRJNA 224116	22411 6	SAMN1 4070316	14070 316	strain	EKM 201D	227	University of Guelph	na	full-genome-representation	GCA_0 1180021 5.1	GCF_01 1800215 .1	identical	4019 33	44095 9
GCF_011 009615.1	ASM11 00961v 1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 517196	51719 6	PRJNA 224116	22411 6	SAMN1 0822534	10822 534	strain	B4	15	University of Surrey	na	full-genome-representation	GCA_0 1100961 5.1	GCF_01 1009615 .1	identical	3961 70	39617 0
GCF_000 235805.1	ASM23 580v2	108 036 5	Pediococcus acidilactici MA18/5M (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 72773	72773	PRJNA 224116	22411 6	SAMN0 2469945	24699 45	strain	MA1 8/5M	33	Institut Rosell Lallemand Inc.	na	full-genome-representation	GCA_0 0023580 5.2	GCF_00 0235805 .1	identical	3959 98	39599 8
GCF_009 808645.1	ASM98 0864v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Scaffold	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008395	13008 395	strain	FAM 18321	15	Agroscope	na	full-genome-representation	GCA_0 0980864 5.1	GCF_00 9808645 .1	identical	3891 50	38915 0
GCF_004 353295.1	ASM43 5329v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 525615	52561 5	PRJNA 224116	22411 6	SAMN1 1054835	11054 835	strain	MZF1 6	109	University of Rouen Normandie	na	full-genome-representation	GCA_0 0435329 5.1	GCF_00 4353295 .1	identical	3643 01	36430 1

GCF_009 809665.1	ASM98 0966v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008343	13008 343	strain	FAM 13073	15	Agroscope	na	full-genome representation	GCA_0 0980966 5.1	GCF_00 9809665 .1	identical	3353 13	33531 3
GCF_002 553675.1	ASM25 5367v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 412075	41207 5	PRJNA 224116	22411 6	SAMN0 7702371	77023 71	strain	UMN PBX2 0	50	University of Minnesota	na	full-genome representation	GCA_0 0255367 5.1	GCF_00 2553675 .1	identical	3267 28	32672 8
GCF_005 864405.1	ASM58 6440v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Scaffold	PRJNA 543085	54308 5	PRJNA 224116	22411 6	SAMN1 1653952	11653 952	strain	FAM 19144	23	Agroscope	na	full-genome representation	GCA_0 0586440 5.1	GCF_00 5864405 .1	identical	3255 47	32554 7
GCF_011 009695.1	ASM11 00969v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 517196	51719 6	PRJNA 224116	22411 6	SAMN1 0822530	10822 530	strain	E24	15	University of Surrey	na	full-genome representation	GCA_0 1100969 5.1	GCF_01 1009695 .1	identical	3188 66	31886 6
GCF_011 009715.1	ASM11 00971v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 517196	51719 6	PRJNA 224116	22411 6	SAMN1 0822531	10822 531	strain	F7	15	University of Surrey	na	full-genome representation	GCA_0 1100971 5.1	GCF_01 1009715 .1	identical	3188 66	31886 6
GCF_004 099675.1	ASM40 9967v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Scaffold	PRJNA 515210	51521 0	PRJNA 224116	22411 6	SAMN1 0744163	10744 163	strain	L8-A	142	Texas Tech University	na	full-genome representation	GCA_0 0409967 5.1	GCF_00 4099675 .1	identical	3154 44	31544 4
GCF_004 099815.1	ASM40 9981v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Scaffold	PRJNA 515210	51521 0	PRJNA 224116	22411 6	SAMN1 0744156	10744 156	strain	L2-A	214	Texas Tech University	na	full-genome representation	GCA_0 0409981 5.1	GCF_00 4099815 .1	identical	3152 82	31528 2
GCF_009 808085.1	ASM98 0808v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008308	13008 308	strain	FAM 19169	17	Agroscope	na	full-genome representation	GCA_0 0980808 5.1	GCF_00 9808085 .1	identical	3107 05	31070 5
GCF_009 808845.1	ASM98 0884v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Scaffold	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008385	13008 385	strain	FAM 18813	16	Agroscope	na	full-genome representation	GCA_0 0980884 5.1	GCF_00 9808845 .1	identical	3087 15	30871 5

GCF_009 910835.1	ASM99 1083v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 544274	54427 4	PRJNA 224116	22411 6	SAMN1 1831832	11831 832	strain E1	20	University of Surrey	na	full- geno- me- repres- entati- on	GCA_0 0991083 5.1	GCF_00 9910835 .1	iden- tical	2984 07	29840 7
GCF_011 009675.1	ASM11 00967v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 517196	51719 6	PRJNA 224116	22411 6	SAMN1 0822532	10822 532	strain I32	15	University of Surrey	na	full- geno- me- repres- entati- on	GCA_0 1100967 5.1	GCF_01 1009675 .1	iden- tical	2984 07	29840 7
GCF_009 808815.1	ASM98 0881v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Scaffold	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008387	13008 387	strain FAM20650	34	Agroscope	na	full- geno- me- repres- entati- on	GCA_0 0980881 5.1	GCF_00 9808815 .1	iden- tical	2972 52	29725 2
GCF_007 992275.1	ASM79 9227v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJDB 6300	40072 3	PRJNA 224116	22411 6	SAMD0 0172662	11843 515	strain NBR C107768	141	National Institute of Technology and Evaluation Biological Resource Center	na	full- geno- me- repres- entati- on	GCA_0 0799227 5.1	GCF_00 7992275 .1	iden- tical	2957 78	29577 8
GCF_013 385165.1	ASM13 38516v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 641973	64197 3	PRJNA 224116	22411 6	SAMN1 5374531	15374 531	strain TUC O-3	476	CERELA	na	full- geno- me- repres- entati- on	GCA_0 1338516 5.1	GCF_01 3385165 .1	iden- tical	2952 12	29521 2
GCF_002 724015.1	ASM27 2401v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJDB 6040	39635 0	PRJNA 224116	22411 6	SAMD0 0093675	77685 43	strain NBR C3182	107	National Institute of Technology and Evaluation Biological Resource Center	na	full- geno- me- repres- entati- on	GCA_0 0272401 5.1	GCF_00 2724015 .1	iden- tical	2917 56	29175 6
GCF_011 800255.1	ASM11 80025v1	168 369 8	Pediococcus sp. EKM2 02D (firmicutes)	16836 98	Pediococcus sp. EKM2 02D	Scaffold	PRJNA 605474	60547 4	PRJNA 224116	22411 6	SAMN1 4070325	14070 325	strain EKM 202D	235	University of Guelph	na	full- geno- me- repres- entati- on	GCA_0 1180025 5.1	GCF_01 1800255 .1	iden- tical	2873 48	44028 7
GCF_013 249135.1	ASM13 24913v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 574342	57434 2	PRJNA 224116	22411 6	SAMN1 4848240	14848 240	strain BIO6 314	876	Bioprox	na	full- geno- me- repres- entati- on	GCA_0 1324913 5.1	GCF_01 3249135 .1	iden- tical	2700 87	27008 7

GCF_013 375165.1	Unicyc ler	125 4	Pedioc occus acidila ctici (firmic utes)	1254	Pedioc occus acidila ctici	Scaffol d	PRJNA 640898	64089 8	PRJNA 224116	22411 6	SAMN1 5337232	15337 232	strai n	IRZ12 B	258	Padova university	na	full- geno me- repres entati on	GCA_0 1337516 5.1	GCF_01 3375165 .1	iden tical	2598 48	20246 45
GCF_004 115445.1	ASM41 1544v1	125 5	Pedioc occus pentos aceus (firmic utes)	1255	Pedioc occus pentos aceus	Scaffol d	PRJNA 513828	51382 8	PRJNA 224116	22411 6	SAMN1 0721079	10721 079	strai n	6_1	521	Beijing Technology and Business University	na	full- geno me- repres entati on	GCA_0 0411544 5.1	GCF_00 4115445 .1	iden tical	2450 36	24503 6
GCF_001 672605.1	ASM16 7260v1	125 4	Pedioc occus acidila ctici (firmic utes)	1254	Pedioc occus acidila ctici	Contig	PRJNA 321943	32194 3	PRJNA 224116	22411 6	SAMN0 5162513	51625 13	strai n	SRC M100 320	758	Microbial Institue for Fermentati on Industry	na	full- geno me- repres entati on	GCA_0 0167260 5.1	GCF_00 1672605 .1	iden tical	2306 91	23069 1
GCF_000 380265.1	PAD3_ 1.0	130 695 2	Pedioc occus acidila ctici D3 (firmic utes)	1254	Pedioc occus acidila ctici	Scaffol d	PRJNA 193440	19344 0	PRJNA 224116	22411 6	SAMN0 1991044	19910 44	strai n	D3	567	Texas A&M University	na	full- geno me- repres entati on	GCA_0 0038026 5.1	GCF_00 0380265 .1	iden tical	2243 42	18658 05
GCF_006 539025.1	ASM65 3902v1	125 4	Pedioc occus acidila ctici (firmic utes)	1254	Pedioc occus acidila ctici	Contig	PRJDB 6046	39635 6	PRJNA 224116	22411 6	SAMD0 0097159	12056 569	strai n	NBR C 12231	298	National Institute of Technolog y and Evaluation Biological Resource Center	na	full- geno me- repres entati on	GCA_0 0653902 5.1	GCF_00 6539025 .1	iden tical	2123 97	21239 7
GCF_000 163095.1	ASM16 309v1	563 194	Pedioc occus acidila ctici 7_4 (firmic utes)	1254	Pedioc occus acidila ctici	Scaffol d	PRJNA 40051	40051	PRJNA 224116	22411 6	SAMN0 2463809	24638 09	strai n	7_4	0	Broad Institute	na	full- geno me- repres entati on	GCA_0 0016309 5.1	GCF_00 0163095 .1	iden tical	1742 86	38405 5
GCF_007 989045.1	ASM79 8904v1	319 652	Pedioc occus cellicol a (firmic utes)	31965 2	Pedioc occus cellicol a	Contig	PRJDB 6231	39965 7	PRJNA 224116	22411 6	SAMD0 0166038	11282 932	strai n	NBR C 10610 3	289	National Institute of Technolog y and Evaluation Biological Resource Center	na	full- geno me- repres entati on	GCA_0 0798904 5.1	GCF_00 7989045 .1	iden tical	1609 00	16090 0
GCF_003 571945.1	ASM35 7194v1	125 4	Pedioc occus acidila ctici (firmic utes)	1254	Pedioc occus acidila ctici	Contig	PRJNA 478800	47880 0	PRJNA 224116	22411 6	SAMN0 9531784	95317 84	strai n	GS1	120	Kangwon Natl. Univ.	na	full- geno me- repres entati on	GCA_0 0357194 5.1	GCF_00 3571945 .1	iden tical	1578 35	15783 5

GCF_004 100005.1	ASM41 0000v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Scaffold	PRJNA 515210	51521 0	PRJNA 224116	22411 6	SAMN1 0744148	10744 148	strain L14-B	67	Texas Tech University	na	full- geno- me- repres entati on	GCA_0 0410000 5.1	GCF_00 4100005 .1	iden tical	1495 55	14955 5
GCF_009 809195.1	ASM98 0919v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008369	13008 369	strain FAM17622	18	Agroscope	na	full- geno- me- repres entati on	GCA_0 0980919 5.1	GCF_00 9809195 .1	iden tical	1310 18	13101 8
GCF_003 591195.1	ASM35 9119v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 479750	47975 0	PRJNA 224116	22411 6	SAMN0 9604260	96042 60	strain WT	160	Kangwon Nat'l. Univ.	na	full- geno- me- repres entati on	GCA_0 0359119 5.1	GCF_00 3591195 .1	iden tical	1298 26	12982 6
GCF_005 864415.1	ASM58 6441v1	331 679	Pediococcus stilesii (firmicutes)	33167 9	Pediococcus stilesii	Scaffold	PRJNA 543085	54308 5	PRJNA 224116	22411 6	SAMN1 1653953	11653 953	strain FAM18815	13	Agroscope	na	full- geno- me- repres entati on	GCA_0 0586441 5.1	GCF_00 5864415 .1	iden tical	1204 03	12040 3
GCF_001 593095.1	ASM15 9309v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 310676	31067 6	PRJNA 224116	22411 6	SAMN0 4453291	44532 91	strain FBL2	522	Kyunghee University	na	full- geno- me- repres entati on	GCA_0 0159309 5.1	GCF_00 1593095 .1	iden tical	1170 20	11702 0
GCF_000 285875.1	ASM28 587v1	113 359 6	Pediococcus pentosaceus IE-3 (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJEA 80991	80991	PRJNA 224116	22411 6	SAMEA 2272526	24841 74	strain IE-3	0	Institute of Microbial Technology (CSIR)	na	full- geno- me- repres entati on	GCA_0 0028587 5.1	GCF_00 0285875 .1	iden tical	1152 49	11524 9
GCF_009 809485.1	ASM98 0948v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008353	13008 353	strain FAM19083	27	Agroscope	na	full- geno- me- repres entati on	GCA_0 0980948 5.1	GCF_00 9809485 .1	iden tical	1025 21	10252 1
GCF_009 809425.1	ASM98 0942v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008356	13008 356	strain FAM19080	21	Agroscope	na	full- geno- me- repres entati on	GCA_0 0980942 5.1	GCF_00 9809425 .1	iden tical	9377 5	93775
GCF_009 809875.1	ASM98 0987v1	125 5	Pediococcus pentosaceus	1255	Pediococcus pentosaceus	Scaffold	PRJNA 576774	57677 4	PRJNA 224116	22411 6	SAMN1 3008333	13008 333	strain FAM19086	15	Agroscope	na	full- geno- me- repres	GCA_0 0980987 5.1	GCF_00 9809875 .1	iden tical	9165 7	91657

(firmicutes)																entation						
GCF_001 748065.1	ASM17 4806v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Scaffold	PRJDB 4140	33843 6	PRJNA 224116	22411 6	SAMD0 0036446	55542 34	strain LP28	155	Department of Molecular Biology and Biotechnology, Graduate School of Biomedical and Health Sciences, Hiroshima University	na	full-genome- representation	GCA_0 0174806 5.1	GCF_00 1748065 .1	identical	8713 9	17748 65
GCF_001 634455.1	ASM16 3445v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 308163	30816 3	PRJNA 224116	22411 6	SAMN0 4387728	43877 28	strain NRC C1	197	ICAR-National Research Centre on Camel	na	full-genome- representation	GCA_0 0163445 5.1	GCF_00 1634455 .1	identical	7821 3	78213
GCF_001 541865.1	ASM15 4186v1	125 5	Pediococcus pentosaceus (firmicutes)	1255	Pediococcus pentosaceus	Contig	PRJNA 308373	30837 3	PRJNA 224116	22411 6	SAMN0 4395033	43950 33	strain NKY L15	100	Institute of Subtropical Agriculture, Chinese Academy of Sciences	na	full-genome- representation	GCA_0 0154186 5.1	GCF_00 1541865 .1	identical	7591 6	75916
GCF_002 770665.1	ASM27 7066v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Scaffold	PRJNA 354877	35487 7	PRJNA 224116	22411 6	SAMN0 6053758	60537 58	strain VTT E-12321 2	50	University of Saskatchewan	na	full-genome- representation	GCA_0 0277066 5.1	GCF_00 2770665 .1	identical	7406 7	20247 86
GCF_001 641385.1	ASM16 4138v1	114 090	Pediococcus inopinatus (firmicutes)	11409 0	Pediococcus inopinatus	Contig	PRJDB 2940	31744 4	PRJNA 224116	22411 6	SAMD0 0018420	46068 22	strain Wikim15	552	World Institute of Kimchi	na	full-genome- representation	GCA_0 0164138 5.1	GCF_00 1641385 .1	identical	6982 8	69828
GCF_001 638245.1	ASM16 3824v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 309020	30902 0	PRJNA 224116	22411 6	SAMN0 4419358	44193 58	strain NRC C3	20	ICAR-National Research Centre on Camel	na	full-genome- representation	GCA_0 0163824 5.1	GCF_00 1638245 .1	identical	5855 3	58553
GCF_007 991575.1	ASM79 9157v1	319 653	Pediococcus ethanolidurans	31965 3	Pediococcus ethanolidurans	Contig	PRJDB 6232	39965 8	PRJNA 224116	22411 6	SAMD0 0170759	11603 097	strain NBR C 10610 4	108	National Institute of Technology and Evaluation	na	full-genome- representation	GCA_0 0799157 5.1	GCF_00 7991575 .1	identical	5691 3	56913

(firmicutes)															Biological Resource Center	entation						
GCF_001 461015.1	ASM14 6101v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 296933	29693 3	PRJNA 224116	22411 6	SAMN0 4111307	41113 07	strain S1	531	Shin's Lab., Kyungpook National University	na	full-genome-representation	GCA_00146101 5.1	GCF_001461015 .1	identical	5571 7	55717
GCF_001 640785.1	ASM16 4078v1	540 62	Pediococcus parvulus (firmicutes)	54062	Pediococcus parvulus	Contig	PRJNA 320830	32083 0	PRJNA 224116	22411 6	SAMN0 4958102	49581 02	strain 2.6	100 0	Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria (CREA)	na	full-genome-representation	GCA_00164078 5.1	GCF_001640785 .1	identical	5111 5	51115
GCF_002 770635.1	ASM27 7063v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Scaffold	PRJNA 354877	35487 7	PRJNA 224116	22411 6	SAMN0 6053759	60537 59	strain VTT E-12321 6	50	University of Saskatchewan	na	full-genome-representation	GCA_00277063 5.1	GCF_002770635 .1	identical	4362 0	20868 33
GCF_002 787675.1	ASM27 8767v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Scaffold	PRJNA 354877	35487 7	PRJNA 224116	22411 6	SAMN0 6053757	60537 57	strain P58	30	University of Saskatchewan	na	full-genome-representation	GCA_00278767 5.1	GCF_002787675 .1	identical	4338 7	20879 95
GCF_007 992295.1	ASM79 9229v1	480 391	Pediococcus argentinus (firmicutes)	480391	Pediococcus argentinus	Contig	PRJDB 6301	40072 4	PRJNA 224116	22411 6	SAMD0 0172663	11843 516	strain NBR C 10782 7	137	National Institute of Technology and Evaluation Biological Resource Center	na	full-genome-representation	GCA_00799229 5.1	GCF_007992295 .1	identical	4208 9	42089
GCF_001 634445.1	ASM16 3444v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 308165	30816 5	PRJNA 224116	22411 6	SAMN0 4387731	43877 31	strain NRC C2	53.4	ICAR-National Research Centre on Camel	na	full-genome-representation	GCA_00163444 5.1	GCF_001634445 .1	identical	2685 7	26857
GCF_000 962875.1	ASM96 287v1	814 3	Pediococcus damnosus LMG 28219 (firmicutes)	51663	Pediococcus damnosus	Contig	PRJNA 234374	23437 4	PRJNA 224116	22411 6	SAMN0 2592738	25927 38	strain LMG 28219	270	Ghent University	na	full-genome-representation	GCA_00096287 5.1	GCF_000962875 .1	identical	2465 9	24659

GCF_006 538785.1	ASM65 3878v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Contig	PRJDB 6044	39635 4	PRJNA 224116	22411 6	SAMD0 0093694	12056 557	strain	NBR C 3889	91	National Institute of Technology and Evaluation Biological Resource Center	na	full- geno- me- repres entati on	GCA_0 0653878 5.1	GCF_00 6538785 .1	iden tical	2034 8	20348
GCF_004 022295.1	ASM40 2229v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Scaffold	PRJNA 512885	51288 5	PRJNA 224116	22411 6	SAMN1 0690227	10690 227	strain	LPBC 161	11	UFPR	na	full- geno- me- repres entati on	GCA_0 0402229 5.1	GCF_00 4022295 .1	iden tical	1814 0	19488
GCF_011 009585.1	ASM11 00958v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 517196	51719 6	PRJNA 224116	22411 6	SAMN1 0822533	10822 533	strain	M16	5	University of Surrey	na	full- geno- me- repres entati on	GCA_0 1100958 5.1	GCF_01 1009585 .1	iden tical	1131 7	11317
GCF_001 636135.1	ASM16 3613v1	516 63	Pediococcus damnosus (firmicutes)	51663	Pediococcus damnosus	Scaffold	PRJNA 309620	30962 0	PRJNA 224116	22411 6	SAMN0 4437152	44371 52	strain	BM- PD14 610	400	South China University of Technolog y	na	full- geno- me- repres entati on	GCA_0 0163613 5.1	GCF_00 1636135 .1	iden tical	8404	12875
GCF_001 868705.1	ASM18 6870v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 344012	34401 2	PRJNA 224116	22411 6	SAMN0 5804765	58047 65	strain	JKY1 8	788	Anhui University	na	exclud ed- from- refseq	GCA_0 0186870 5.1	GCF_00 1868705 .1	iden tical	1643 836	16438 36
GCA_00 9761085.1	ASM97 6108v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 434783	43478 3			SAMN0 8574375	85743 75	strain	NCD C 252	30	KURUKS HETRA UNIVERSITY KURUKS HETRA	na	exclud ed- from- refseq	GCA_0 0976108 5.1			3588 21	35882 1
GCF_001 294765.1	PedAci K3	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 293918	29391 8	PRJNA 224116	22411 6	SAMN0 4011952	40119 52	strain	K3	385	Shin's Lab., Kyungpook National University	na	exclud ed- from- refseq	GCA_0 0129476 5.1	GCF_00 1294765 .1	iden tical	7887 0	78870
GCF_001 867265.1	ASM18 6726v1	125 4	Pediococcus acidilactici (firmicutes)	1254	Pediococcus acidilactici	Contig	PRJNA 336459	33645 9	PRJNA 224116	22411 6	SAMN0 5510866	55108 66	strain	NRC C4	12	ICAR- National Research Centre on Camel	na	exclud ed- from- refseq	GCA_0 0186726 5.1	GCF_00 1867265 .1	iden tical	9323	9323