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PROKARYOTES

Draft Genome Sequences of 43 *Lactobacillus* Strains from the Species *L. curvatus*, *L. fermentum*, *L. paracasei*, *L. plantarum*, *L. rhamnosus*, and *L. sakei*, Isolated from Food Products

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ABSTRACT The genome sequences of 43 *Lactobacillus* strains from the species *L. curvatus*, *L. fermentum*, *L. paracasei*, *L. plantarum*, *L. rhamnosus*, and *L. sakei* were determined using Illumina MiSeq.

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Lactobacillus strains have been isolated from a broad spectrum of food products, such as salami type sausages, meat, dairy products, sauerkraut, and fermented vegetables (1, 2). Lactobacilli are used as starter and protective cultures in industrial fermentations to control the fermentation process, extend the shelf-life of the fermented product, and increase its safety. In addition, some strains are marketed as probiotic and benefit the health of the consumer (3, 4). Here, the sequenced genomes of 4 *L. curvatus*, 1 *L. fermentum*, 3 *L. paracasei*, 28 *L. plantarum*, 1 *L. rhamnosus*, and 6 *L. sakei* strains are presented. These strains were selected from a phenotypic screening and exhibited an atypical phenotype, or were selected as potential protective cultures in a high-throughput screening assay (5). Genomic DNA was isolated by using a lysozyme-based cell wall digestion step and subsequently a Wizard genomic DNA purification kit (Promega, Dübendorf, Switzerland). The genomes were sequenced with Illumina MiSeq, pairwise reads of 150 bp, 30-fold coverage at the Functional Genomic Center Zurich (Zurich, Switzerland). Potential functions of predicted genes were automatically annotated using the NCBI Prokaryotic Genome Annotation Pipeline.

Accession number(s). Sequence and annotation data of the *Lactobacillus* strains are deposited as BioProject PRJNA343164 in the GenBank database and corresponding accession numbers listed in Table 1.

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TABLE 1 Sequenced genomes of *Lactobacillus* in NCBI BioProject PRJNA343164

Strain	Accession no.	Genome size (Mb)	No. of contigs	% G+C	No. of CDS[a]
Lactobacillus curvatus RI-124	MKDR00000000	1.81	77	42.0	1,838
Lactobacillus curvatus RI-193	MKGD00000000	1.81	82	42.0	1,862
Lactobacillus curvatus RI-198	MKGC00000000	1.80	77	42.0	1,848
Lactobacillus curvatus RI-406	MKDG00000000	2.01	52	41.7	2,020
Lactobacillus fermentum RI-508	MKGE00000000	1.92	74	52.2	1,959
Lactobacillus paracasei RI-194	MKFZ00000000	3.06	86	46.3	3,197
Lactobacillus paracasei RI-195	MKGA00000000	3.03	125	46.3	3,170
Lactobacillus paracasei RI-210	MKFY00000000	3.06	58	46.1	3,164
Lactobacillus plantarum RI-011	MJHC00000000	3.17	33	44.6	3,063
Lactobacillus plantarum RI-012	MJHD00000000	3.22	101	44.4	3,175
Lactobacillus plantarum RI-048	MJHG00000000	3.19	94	44.5	3,150
Lactobacillus plantarum RI-086	MKDP00000000	3.08	90	44.6	3,003
Lactobacillus plantarum RI-123	MKDQ00000000	3.32	60	44.3	3,253
Lactobacillus plantarum RI-139	MKDS00000000	3.33	78	44.4	3,264
Lactobacillus plantarum RI-140	MKDT00000000	3.31	85	44.3	3,241
Lactobacillus plantarum RI-146	MKDU00000000	3.37	61	44.3	3,304
Lactobacillus plantarum RI-147	MKDV00000000	3.32	100	44.4	3,253
Lactobacillus plantarum RI-162	MJHH00000000	3.32	41	44.6	3,053
Lactobacillus plantarum RI-165	MJHI00000000	3.30	101	44.3	3,212
Lactobacillus plantarum RI-189	MJHJ00000000	3.10	56	44.5	3,012
Lactobacillus plantarum RI-190	MJHK00000000	3.10	58	44.5	2,996
Lactobacillus plantarum RI-208	MKFX00000000	3.14	82	44.5	3,042
Lactobacillus plantarum RI-266	MKDY00000000	3.47	71	44.2	3,412
Lactobacillus plantarum RI-405	MKDF00000000	3.32	72	44.3	3,273
Lactobacillus plantarum RI-408	MKDH00000000	3.07	123	44.6	2,988
Lactobacillus plantarum RI-422	MKDK00000000	3.33	55	44.3	3,274
Lactobacillus plantarum RI-505	MKDZ00000000	3.10	52	44.7	3,018
Lactobacillus plantarum RI-506	MKEA00000000	3.39	76	44.2	3,344
Lactobacillus plantarum RI-507	MKEB00000000	3.53	126	44.1	3,499
Lactobacillus plantarum RI-509	MKEC00000000	3.32	66	44.4	3,296
Lactobacillus plantarum RI-510	MKED00000000	3.37	110	44.2	3,353
Lactobacillus plantarum RI-511	MKEE00000000	3.33	105	44.2	3,300
Lactobacillus plantarum RI-512	MKEF00000000	3.30	151	44.3	3,284
Lactobacillus plantarum RI-513	MKEG00000000	3.28	71	44.4	3,199
Lactobacillus plantarum RI-514	MKEH00000000	3.23	61	44.5	3,134
Lactobacillus plantarum RI-515	MKGF00000000	3.32	94	44.4	3,258
Lactobacillus rhamnosus RI-004	MJHB00000000	2.92	72	46.6	2,993
Lactobacillus sakei RI-394	MKDC00000000	1.94	44	41.0	1,963
Lactobacillus sakei RI-403	MKDD00000000	2.00	29	41.0	2,032
Lactobacillus sakei RI-404	MKDE00000000	1.95	28	41.0	1,977
Lactobacillus sakei RI-409	MKGB00000000	1.99	67	40.9	2,022
Lactobacillus sakei RI-410	MKDI00000000	1.93	73	41.1	1,949
Lactobacillus sakei RI-412	MKDJ00000000	1.92	32	41.1	1,934

[a]CDS, coding sequences.