

Table S1 Crystallization Scoring Criteria

Score	Number and size of crystals
0 points	No crystals in high magnification field of view
1 points	Few crystals (1 ~ 9)
2 points	Medium number of crystals (10 ~ 24)
3 points	More than medium number of crystals (25 ~ 49)
4 points	Large number of crystals (50 ~ 99)
5 points	Very large number of crystals (100 ~ 199)
6 points	Tightly packed crystals or very large crystals

Table S2 Reaction primer sequence

Primer name	Primer Sequences (5' - 3')
Kim-1-F	GGGTCTCCTTCACAGCACATT
Kim-1-R	CAAGGCCAGCCCTCTAATGG
OPN-F	TGAGACTGGCAGTGGTTTGC
OPN-R	CCACTTTCACCGGGAGACA
SOD-F	ATGGGACAATACACAAGGCTG
SOD-R	AATCCCAATCACACCACAAGC
MCP-1-F	TGGGCCTGTTGTTACAGTT
MCP-1-R	ACCTGCTGCTGGTGATTCTC
GAPDH -F	AGGCTCTTGGCTTAGTTATC
GAPDH -R	TTCTTGATTGCGGCGTTA

Table S3 Strains with OD<sub>600</sub>>0.2 under the condition of OX<sub>30</sub>-MRS<sub>0</sub>

Strain number	OD <sub>600</sub> value	Name of strain	Source of strain
AR48	0.253	<i>Enterococcus faecalis</i>	Pickled radish
AR161	0.225	<i>Lacticaseibacillus paracasei</i>	Rice wine
AR209	0.217	<i>Enterococcus casseliflavus</i>	Pickle
AR243	0.217	<i>Pediococcus pentosaceus</i>	Pickle
AR302	0.242	<i>Lacticaseibacillus paracasei</i>	Huangjiu pre-fermentation broth
AR343	0.261	<i>Lactobacillus harbinensis</i>	Pickle
AR1043	0.250	<i>Lactiplantibacillus plantarum</i>	Huangjiu

Table S4 Strains with OD<sub>600</sub>>1.1 under the condition of OX<sub>30</sub>-MRS<sub>10</sub>

Strain number	OD <sub>600</sub>	Name of strain	Source of strain
AR93	1.065	<i>Lacticaseibacillus paracasei</i>	Pickle
AR171	1.101	<i>Lactiplantibacillus plantarum</i>	Rice syrup water for Huangjiu
AR237	1.124	<i>Lactiplantibacillus plantarum</i>	Huangjiu post-fermentation broth
AR269	1.125	<i>Lactiplantibacillus plantarum</i>	Huangjiu pre-fermentation broth
AR342	1.124	<i>Lactiplantibacillus plantarum</i>	Dairy products
AR496	1.146	<i>Lacticaseibacillus rhamnosus</i>	Pickle
AR501	1.147	<i>Lactiplantibacillus plantarum</i>	Huangjiu
AR509	1.108	<i>Lactiplantibacillus plantarum</i>	Huangjiu
AR510	1.100	<i>Lactiplantibacillus plantarum</i>	Pickle
AR1043	1.103	<i>Lactiplantibacillus plantarum</i>	Huangjiu

Table S5 Meanwhile in OX<sub>30</sub>-MRS<sub>0</sub> and OX<sub>30</sub>-MRS<sub>10</sub> the better-growing strains

Strain number	OD <sub>600</sub>	Name of strain	Source of strain
AR195	1.065	<i>Lactiplantibacillus plantarum</i>	Pickle
AR326	1.101	<i>Lactiplantibacillus plantarum</i>	Rice syrup water for Huangjiu
AR495	1.124	<i>Lactiplantibacillus plantarum</i>	Huangjiu post-fermentation broth
AR623	1.125	<i>Lactiplantibacillus plantarum</i>	Huangjiu pre-fermentation broth
AR674	1.124	<i>Lactiplantibacillus plantarum</i>	Dairy products
AR676	1.146	<i>Lacticaseibacillus paracasei</i>	Pickle
AR693	1.147	<i>Lactiplantibacillus plantarum</i>	Huangjiu
AR1011	1.108	<i>Lactiplantibacillus plantarum</i>	Huangjiu
AR1019	1.100	<i>Lactiplantibacillus plantarum</i>	Pickle
AR1025	1.098	<i>Lactiplantibacillus plantarum</i>	Huangjiu
AR1089	1.103	<i>Lactiplantibacillus plantarum</i>	Pickle

Table S6 Maximum biomass and growth rate of strains under different pH conditions

Strain number	Control	pH=3	pH=3.5	pH=4	
	Maximum biomass (OD <sub>600</sub> )	Maximum biomass (OD <sub>600</sub> )	Maximum biomass (OD <sub>600</sub> )	Maximum biomass (OD <sub>600</sub> )	growth rate (OD <sub>600</sub> /h)
AR48	0.946	0.088	0.090	0.243	0.0179
AR93	1.919	0.238	0.482	1.071	0.0584
AR161	1.901	0.196	0.310	0.586	0.0432
AR171	2.032	0.151	0.327	0.0654	0.0456
AR195	1.575	0.042	0.126	0.457	0.0498
AR237	1.991	0.151	0.325	0.595	0.0444
AR243	1.608	0.100	0.184	0.326	0.0365
AR269	1.971	0.198	0.556	1.170	0.0573
AR302	1.480	0.074	0.126	0.623	0.0405
AR326	1.923	0.208	0.368	0.884	0.0482
AR342	2.052	0.291	0.483	1.301	0.0582
AR495	1.929	0.223	0.328	1.133	0.0618
AR496	1.918	0.218	0.342	1.104	0.0568
AR501	1.939	0.178	0.386	1.251	0.0594
AR509	2.058	0.309	0.447	1.006	0.0542
AR510	2.028	0.222	0.316	0.806	0.0492
AR623	1.884	0.203	0.220	1.101	0.0557
AR674	2.063	0.237	0.626	1.484	0.0585
AR676	1.817	0.290	0.213	0.774	0.0515
AR693	1.923	0.145	0.195	0.554	0.0399
AR1011	2.042	0.259	0.440	1.436	0.0650
AR1019	2.033	0.250	0.479	1.288	0.0596
AR1025	2.046	0.261	0.601	1.423	0.0599
AR1043	2.029	0.223	0.463	1.365	0.0646
AR1089	2.038	0.235	0.496	1.481	0.0588

Table S7 Maximum biomass and growth rate of strains under different bile salt concentrations

Strain number	Control	0.4%	0.3%	0.2%	
	Maximum biomass (OD <sub>600</sub> )	Maximum biomass (OD <sub>600</sub> )	Maximum biomass (OD <sub>600</sub> )	Maximum biomass (OD <sub>600</sub> )	growth rate (OD <sub>600</sub> /h)
AR48	0.946	0.203	0.257	0.571	0.0868
AR93	1.919	0.399	0.426	0.807	0.0290
AR161	1.901	0.389	0.405	0.870	0.0131
AR171	2.032	0.420	0.664	1.151	0.0661
AR195	1.575	1.027	1.267	1.491	0.1053
AR237	1.991	1.154	1.372	1.590	0.0771
AR243	1.929	0.429	0.444	0.622	0.0392
AR269	1.971	0.417	0.469	1.030	0.0845
AR302	1.480	0.217	0.241	0.745	0.0604
AR326	1.923	0.530	0.547	0.719	0.0368
AR342	2.052	0.829	0.912	1.438	0.0616
AR495	1.608	0.670	0.845	1.090	0.0860
AR496	1.918	0.215	0.367	0.633	0.0359
AR501	1.939	0.579	0.921	1.337	0.0932
AR509	2.058	0.735	0.842	1.369	0.0554
AR510	2.028	0.750	1.017	1.520	0.0671
AR623	2.063	0.400	0.499	0.950	0.0669
AR674	1.884	1.064	1.252	1.593	0.0636
AR676	1.817	0.404	0.328	0.301	0.0222
AR693	1.923	0.319	0.394	0.355	0.0154
AR1011	2.042	0.586	0.640	0.765	0.0345
AR1019	2.033	1.056	1.010	1.508	0.0670
AR1025	2.046	0.707	1.025	1.565	0.0672
AR1043	2.029	0.788	1.062	1.575	0.0676
AR1089	2.038	0.719	0.953	1.535	0.0642