

Table S1. Molecular identification of LAB from Bulgarian sourdoughs by partial 16S rDNA sequence analysis.

№	Sourdough	Isolate	Closest relative (identity, %)	GenBank accession no.
1	01M	01M02	<i>Lactobacillus brevis</i> (100.00)	MW685433
		01M06	<i>Lactobacillus brevis</i> (100.00)	MW685432
		01M09	<i>Lactobacillus plantarum</i> (99.43)	MW774565
		01M11	<i>Lactobacillus plantarum</i> (100.00)	MW682229
		01M12	<i>Lactobacillus plantarum</i> (99.23)	MW682230
		01M18	<i>Lactobacillus plantarum</i> (100.00)	MW682231
		01M19	<i>Lactobacillus brevis</i> (99.66)	MW685431
		01M20	<i>Lactobacillus plantarum</i> (100.00)	MW682225
		01M21	<i>Lactobacillus brevis</i> (99.47)	MW685439
		01M22	<i>Lactobacillus brevis</i> (99.43)	MW685430
		01M24	<i>Lactobacillus plantarum</i> (99.56)	MW682227
		01M25	<i>Lactobacillus plantarum</i> (100.00)	MW682233
		01M26	<i>Lactobacillus plantarum</i> (100.00)	MW682226
		01M28	<i>Lactobacillus plantarum</i> (100.00)	MW682234
		01M29	<i>Lactobacillus brevis</i> (100.00)	MW685429
		01M30	<i>Lactobacillus plantarum</i> (97.95)	MW682235
2	02P1	02P103	<i>Pediococcus pentosaceus</i> (100.00)	MW683145
		02P104	<i>Pediococcus acidilactici</i> (99.25)	MW683129
		02P108	<i>Pediococcus acidilactici</i> (100.00)	MW683131
		02P109	<i>Lactobacillus plantarum</i> (100.00)	MW682236
		02P111	<i>Pediococcus pentosaceus</i> (99.47)	MW683146
		02P113	<i>Pediococcus pentosaceus</i> (100.00)	MW683176
		02P115	<i>Pediococcus pentosaceus</i> (99.91)	MW683177
		02P116	<i>Lactobacillus plantarum</i> (98.89)	MW682237
		02P117	<i>Lactobacillus plantarum</i> subsp. <i>plantarum</i> (98.91)	MW682281
		02P118	<i>Lactobacillus brevis</i> (98.37)	MW685437
		02P119	<i>Lactobacillus plantarum</i> (100.00)	MW682238
		02P120	<i>Lactobacillus plantarum</i> (100.00)	MW682239
		02P121	<i>Lactobacillus plantarum</i> (100.00)	MW682240
3	03P2	03P226	<i>Pediococcus parvulus</i> (100.00)	MW694895
		03P234	<i>Pediococcus pentosaceus</i> (99.92)	MW774567
		03P2102	<i>Pediococcus pentosaceus</i> (99.25)	MW683147
		03P2187	<i>Pediococcus acidilactici</i> (99.73)	MW683132
		03P2201	<i>Pediococcus pentosaceus</i> (100.00)	MW683148
		03P2218	<i>Pediococcus pentosaceus</i> (99.72)	MW683178
		03P2224	<i>Lactobacillus plantarum</i> (99.82)	MW682241
		03P2233	<i>Lactobacillus plantarum</i> (100.00)	MW682242
		03P226	<i>Lactobacillus brevis</i> (100.00)	MW685427
4	04P3	04P306	<i>Pediococcus pentosaceus</i> (100.00)	MW683179
		04P317	<i>Pediococcus pentosaceus</i> (99.51)	MW683149
		04P325	<i>Pediococcus pentosaceus</i> (99.83)	MW683150
		04P329	<i>Pediococcus pentosaceus</i> (99.22)	MW683180
		04P347	<i>Pediococcus pentosaceus</i> (100.00)	MW683181
		04P394	<i>Lactobacillus plantarum</i> (99.25)	MW774566
		04P3107	<i>Lactobacillus plantarum</i> (100.00)	MW682224
		04P3167	<i>Lactobacillus brevis</i> (100.00)	MW685426
		04P3188	<i>Lactobacillus plantarum</i> (99.68)	MW682223

		04P3197	<i>Lactobacillus plantarum</i> (100.00)	MW682243
		04P201	<i>Lactobacillus plantarum</i> (97.82)	MW682228
5	05S	05S04	<i>Lactobacillus brevis</i> (100.00)	MW685425
		05S16	<i>Lactobacillus plantarum</i> (100.00)	MW682244
		05S27	<i>Pediococcus acidilactici</i> (99.86)	MW683133
		05S29	<i>Lactobacillus plantarum</i> (100.00)	MW682245
		05S76	<i>Pediococcus pentosaceus</i> (99.06)	MW683182
		05S88	<i>Lactobacillus plantarum</i> (99.57)	MW682246
		05S103	<i>Lactobacillus plantarum</i> (99.58)	MW682222
		05S148	<i>Lactobacillus plantarum</i> (100.00)	MW682247
		05S168	<i>Lactobacillus brevis</i> (100.00)	MW685424
		05S178	<i>Lactobacillus brevis</i> (100.00)	MW685423
		05S179	<i>Lactobacillus plantarum</i> (99.61)	MW682248
		05S186	<i>Lactobacillus plantarum</i> (100.00)	MW682249
		05S189	<i>Lactobacillus plantarum</i> (99.26)	MW682250
		05S197	<i>Lactobacillus plantarum</i> subsp. <i>plantarum</i> (99.16)	MW682221
6	06SE	06SE12	<i>Pediococcus pentosaceus</i> (99.84)	MW683183
		06SE17	<i>Pediococcus pentosaceus</i> (99.06)	MW683152
		06SE22	<i>Pediococcus pentosaceus</i> (100.00)	MW683153
		06SE27	<i>Pediococcus pentosaceus</i> (100.00)	MW683184
		06SE75	<i>Pediococcus acidilactici</i> (100.00)	MW683134
		06SE78	<i>Pediococcus pentosaceus</i> (100.00)	MW683185
		06SE92	<i>Pediococcus acidilactici</i> (100.00)	MW683135
		06SE98	<i>Pediococcus acidilactici</i> (100.00)	MW683136
		06SE99	<i>Pediococcus acidilactici</i> (100.00)	MW683137
		06SE107	<i>Pediococcus acidilactici</i> (100.00)	MW683138
		06SE128	<i>Pediococcus pentosaceus</i> (100.00)	MW683186
		06SE157	<i>Pediococcus pentosaceus</i> (100.00)	MW683187
		06SE173	<i>Pediococcus pentosaceus</i> (100.00)	MW683188
		06SE204	<i>Pediococcus pentosaceus</i> (100.00)	MW683189
		06SE234	<i>Pediococcus acidilactici</i> (100.00)	MW683139
		06SE247	<i>Pediococcus pentosaceus</i> (100.00)	MW683190
		06SE251	<i>Pediococcus pentosaceus</i> (100.00)	MW683154
		06SE258	<i>Pediococcus pentosaceus</i> (99.90)	MW683155
		06SE269	<i>Lactobacillus brevis</i> (97.83)	MW685422
		06SE274	<i>Pediococcus pentosaceus</i> (99.05)	MW683156
		06SE279	<i>Enterococcus faecium</i> (99.25)	MW682282
		06SE284	<i>Pediococcus pentosaceus</i> (100.00)	MW683191
		06SE288	<i>Pediococcus acidilactici</i> (100.00)	MW683140
		06SE294	<i>Pediococcus acidilactici</i> (100.00)	MW683141
		06SE297	<i>Pediococcus pentosaceus</i> (100.00)	MW683192
		06SE342	<i>Pediococcus acidilactici</i> (100.00)	MW683142
7	07B1	07B110	<i>Lactobacillus plantarum</i> (100.00)	MW682251
		07B126	<i>Lactobacillus plantarum</i> (100.00)	MW682252
		07B144	<i>Lactobacillus plantarum</i> (100.00)	MW682253
		07B163	<i>Lactobacillus plantarum</i> (100.00)	MW682254
		07B169	<i>Pediococcus pentosaceus</i> (98.98)	MW683193
		07B181	<i>Pediococcus pentosaceus</i> (98.61)	MW683194
		07B187	<i>Lactobacillus plantarum</i> (99.86)	MW682255
		07B198	<i>Lactobacillus brevis</i> (99.48)	MW685435

		07B1109	<i>Pediococcus pentosaceus</i> (99.20)	MW683195
		07B1111	<i>Pediococcus pentosaceus</i> (98.81)	MW683196
		07B1119	<i>Pediococcus pentosaceus</i> (99.83)	MW683157
		07B1138	<i>Lactobacillus plantarum</i> (100.00)	MW682256
		07B1139	<i>Lactobacillus plantarum</i> (100.00)	MW682257
		07B1168	<i>Lactobacillus plantarum</i> (100.00)	MN251169.1
		07B1187	<i>Enterococcus faecium</i> (100.00)	MW682287
		07B1188	<i>Pediococcus pentosaceus</i> (100.00)	MW683158
8	08B2	08B201	<i>Lactobacillus brevis</i> (98.51)	MW685428
		08B212	<i>Lactobacillus plantarum</i> (100.00)	MW682259
		08B217	<i>Lactobacillus plantarum</i> (99.67)	MW682260
		08B225	<i>Lactobacillus brevis</i> (99.36)	MW685421
		08B228	<i>Pediococcus pentosaceus</i> (100.00)	MW683159
		08B238	<i>Lactobacillus plantarum</i> (100.00)	MW682261
		08B262	<i>Pediococcus pentosaceus</i> (97.20)	MW683160
		08B268	<i>Pediococcus pentosaceus</i> (99.82)	MW683161
		08B277	<i>Pediococcus pentosaceus</i> (98.05)	MW683162
		08B279	<i>Pediococcus pentosaceus</i> (99.80)	MW683163
		08B285	<i>Pediococcus pentosaceus</i> (99.15)	MW683197
		08B291	<i>Lactobacillus brevis</i> (99.11)	MW685438
		08B296	<i>Pediococcus pentosaceus</i> (100.00)	MW683198
		08B297	<i>Pediococcus pentosaceus</i> (99.57)	MW683199
9	09B3	09B307	<i>Lactobacillus plantarum</i> (100.00)	MW682262
		09B316	<i>Lactobacillus plantarum</i> (100.00)	MW682263
		09B324	<i>Lactobacillus plantarum</i> (100.00)	MW682264
		09B357	<i>Lactobacillus plantarum</i> (100.00)	MW682265
		09B374	<i>Enterococcus durans</i> (99.75)	MW682284
		09B378	<i>Pediococcus pentosaceus</i> (99.83)	MW683164
		09B383	<i>Pediococcus pentosaceus</i> (99.63)	MW683165
		09B391	<i>Pediococcus pentosaceus</i> (99.66)	MW683166
		09B3105	<i>Lactobacillus brevis</i> (100.00)	MW685420
		09B3154	<i>Pediococcus pentosaceus</i> (99.57)	MW683167
10	10B4	09B3184	<i>Pediococcus pentosaceus</i> (99.72)	MW683168
		10B412	<i>Lactobacillus plantarum</i> (100.00)	MW682266
		10B426	<i>Lactobacillus plantarum</i> (100.00)	MW682267
		10B429	<i>Pediococcus pentosaceus</i> (99.30)	MW683170
		10B447	<i>Lactobacillus plantarum</i> (100.00)	MW682268
		10B458	<i>Lactobacillus plantarum</i> (100.00)	MW682269
		10B487	<i>Lactobacillus plantarum</i> (100.00)	MW682270
		10B4101	<i>Lactobacillus plantarum</i> (100.00)	MW682271
		10B4116	<i>Lactobacillus plantarum</i> (100.00)	MW682272
		10B4122	<i>Lactobacillus plantarum</i> (100.00)	MW682273
		10B4128	<i>Lactobacillus plantarum</i> (100.00)	MW682274
		10B4147	<i>Lactobacillus plantarum</i> (100.00)	MW682275
		10B4159	<i>Lactobacillus plantarum</i> (100.00)	MW682276
		10B4181	<i>Lactobacillus plantarum</i> (100.00)	MW682277
		10B4227	<i>Lactobacillus plantarum</i> (100.00)	MW682278
		10B4261	<i>Lactobacillus plantarum</i> (100.00)	MW682279
		10B4267	<i>Lactobacillus plantarum</i> (100.00)	MW682280
		10B280	<i>Pediococcus pentosaceus</i> (100.00)	MW683169
11	11R1	11R115	<i>Pediococcus pentosaceus</i> (100.00)	MW683200

		11R161	<i>Pediococcus pentosaceus</i> (99.46)	MW683171
		11R187	<i>Pediococcus pentosaceus</i> (99.84)	MW683172
		11R1102	<i>Pediococcus pentosaceus</i> (100.00)	MW683173
		11R1131	<i>Lactobacillus plantarum</i> subsp. <i>plantarum</i> (99.63)	MW682219
		11R1143	<i>Lactobacillus brevis</i> (97.57)	MW685436
		11R1149	<i>Lactobacillus brevis</i> (100.00)	MW685419
		11R1154	<i>Pediococcus acidilactici</i> (98.61)	MW683143
12	12R2	12R204	<i>Enterococcus faecium</i> (100.00)	MW682286
		12R226	<i>Enterococcus faecium</i> (100.00)	MW682285
		12R232	<i>Enterococcus faecium</i> (99.07)	MW682283
		12R238	<i>Lactobacillus plantarum</i> subsp. <i>plantarum</i> (99.77)	MW682220
		12R287	<i>Lactobacillus brevis</i> (98.41)	MW685418
		12R298	<i>Pediococcus pentosaceus</i> (99.66)	MW683174
		12R2104	<i>Pediococcus pentosaceus</i> (99.59)	MW683201
		12R2121	<i>Pediococcus acidilactici</i> (99.81)	MW683144
		12R2162	<i>Lactobacillus brevis</i> (99.59)	MW685434
		12R2169	<i>Pediococcus acidilactici</i> (98.85)	MW683130
		12R2187	<i>Pediococcus pentosaceus</i> (99.17)	MW683202
		12R2192	<i>Pediococcus pentosaceus</i> (100.00)	MW683175