

## SUPPORTING INFORMATION

**Table S1.** Inhibitory effects of lipid accumulation in 3T3-L1 adipocytes cells of lactic acid bacteria (n = 3).

Samples		Identification	Lipid Accumulation (%)	NCBI Accession No.
Resources	Strains			
Control		-	39.4 ± 1.5	-
MDI		-	100.0 ± 9.6	-
Breast milk	MG4503	<i>Lactobacillus gasseri</i>	95 ± 2.8	MN368048
	MG4505	<i>Lacticaseibacillus rhamnosus</i>	48.4 ± 5.5	MN368049
	MG4506	<i>Lactobacillus gasseri</i>	101.7 ± 4.2	MN368050
	MG4507	<i>Lactobacillus gasseri</i>	97.4 ± 3.5	MN368051
	MG4508	<i>Lactobacillus gasseri</i>	94.5 ± 3.0	MN368052
	MG4512	<i>Lactobacillus gasseri</i>	101.0 ± 1.5	MN832997
	MG4522	<i>Lactobacillus gasseri</i>	90.7 ± 0.3	MN833005
	MG4523	<i>Lactobacillus gasseri</i>	117.8 ± 7.9	MN833006
Infant feces	MG4500	<i>Limosilactobacillus fermentum</i>	75.7 ± 4.1	MN368200
	MG4501	<i>Lacticaseibacillus rhamnosus</i>	54.8 ± 5.9	MN368046
	MG4502	<i>Lacticaseibacillus rhamnosus</i>	41.0 ± 3.1	MN368047
	MG4510	<i>Limosilactobacillus fermentum</i>	64.4 ± 9.0	MN368053
	MG4511	<i>Lacticaseibacillus rhamnosus</i>	53.0 ± 6.1	MN368054
	MG4513	<i>Lactobacillus gasseri</i>	107.4 ± 4.1	MN832998
	MG4514	<i>Lactobacillus gasseri</i>	112.6 ± 1.2	MN832999
	MG4515	<i>Lactobacillus gasseri</i>	119.4 ± 4.8	MN833000
	MG4519	<i>Lactiplantibacillus plantarum</i>	70.6 ± 6.9	MN833002
	MG4520	<i>Lactobacillus gasseri</i>	98.3 ± 2.1	MN833003
	MG4521	<i>Lactobacillus gasseri</i>	109.9 ± 7.9	MN833004
	MG4524	<i>Lactobacillus gasseri</i>	57.4 ± 4.7	MN938126
	MG4525	<i>Ligilactobacillus salivarius</i>	121.5 ± 2.5	MN938127
	MG4526	<i>Ligilactobacillus salivarius</i>	73.1 ± 7.1	MN938128
	MG4527	<i>Ligilactobacillus salivarius</i>	98.8 ± 8.5	MN938129
	MG4529	<i>Limosilactobacillus fermentum</i>	67.9 ± 4.4	MN938130
	MG4530	<i>Limosilactobacillus fermentum</i>	65.8 ± 0.8	MN938131
	MG4531	<i>Limosilactobacillus fermentum</i>	111.1 ± 12.8	MN938132
	MG4532	<i>Limosilactobacillus fermentum</i>	94.0 ± 5.6	MN938133
	MG4533	<i>Limosilactobacillus fermentum</i>	78.0 ± 2.5	MN938134
	MG4534	<i>Limosilactobacillus fermentum</i>	73.9 ± 7.1	MN368554
	MG4535	<i>Limosilactobacillus fermentum</i>	74.8 ± 0.4	MN368555
	MG4536	<i>Limosilactobacillus fermentum</i>	75.6 ± 0.1	MN368556
	MG4538	<i>Limosilactobacillus fermentum</i>	76.1 ± 1.2	MN368558
	MG4546	<i>Pediococcus acidilactici</i>	69.1 ± 4.6	MN368260
	MG4548	<i>Pediococcus acidilactici</i>	62.8 ± 3.4	MN368262
	MG4549	<i>Weissella cibaria</i>	80.1 ± 18.1	MN368263
	MG4553	<i>Lactiplantibacillus plantarum</i>	49.0 ± 3.2	MN368266
	MG4573	<i>Lactobacillus acidophilus</i>	127.3 ± 5.1	MT225572
	MG4575	<i>Lactobacillus gasseri</i>	72.0 ± 3.3	MT225592
	MG4577	<i>Lacticaseibacillus paracasei</i>	119.5 ± 8.1	MN833017
	MG4583	<i>Lactobacillus gasseri</i>	67.5 ± 5.2	MN833022
	MG4586	<i>Lactiplantibacillus plantarum</i>	67.1 ± 14.1	MN833024

	MG4589	<i>Bifidobacterium animalis</i> subsp. <i>lactis</i>	74.0 ± 1.4	MT225594
	MG5149	<i>Limosilactobacillus reuteri</i>	47.4 ± 3.7	MN339979
Fermented milk	MG5131	<i>Lacticaseibacillus paracasei</i>	66.2 ± 1.8	MN368274
	MG5135	<i>Lacticaseibacillus paracasei</i>	74.2 ± 1.1	MN339971
	MG5143	<i>Lactiplantibacillus plantarum</i>	71.0 ± 2.3	MN368576
	MG5146	<i>Lacticaseibacillus paracasei</i>	77.0 ± 1.3	MN368275
	MG5148	<i>Lacticaseibacillus paracasei</i>	79.3 ± 2.4	MN339978
	MG5124	<i>Lactococcus lactis</i>	84.9 ± 1.1	MN368057
	MG5126	<i>Lactococcus lactis</i>	82.6 ± 6.6	MN368059
	MG5127	<i>Lactococcus lactis</i>	93.6 ± 6.6	MN368060
	MG5128	<i>Lactococcus lactis</i>	71.1 ± 7.0	MN368061
	MG5129	<i>Lactococcus lactis</i>	77.4 ± 0.2	MN368062
	MG5139	<i>Streptococcus thermophilus</i>	70.8 ± 0.0	MN339975
	MG5141	<i>Lactiplantibacillus plantarum</i>	68.6 ± 2.5	MN368574
	MG5150	<i>Streptococcus thermophilus</i>	103.2 ± 2.5	MN435572
	MG5152	<i>Streptococcus thermophilus</i>	56.9 ± 3.9	MN435574
	MG5154	<i>Limosilactobacillus fermentum</i>	75.9 ± 16.9	MN435575
	MG5155	<i>Lactiplantibacillus plantarum</i>	76.2 ± 11.9	MN435576
	MG5158	<i>Limosilactobacillus fermentum</i>	84.7 ± 4.7	MN435578
	MG5159	<i>Limosilactobacillus fermentum</i>	68.9 ± 13.1	MN435579
	MG5160	<i>Limosilactobacillus fermentum</i>	63.5 ± 2.2	MN435580
	MG5161	<i>Lactobacillus helveticus</i>	88.7 ± 2.9	MN435581
	MG5162	<i>Lactobacillus helveticus</i>	88.6 ± 2.2	MN368268
	MG5163	<i>Lacticaseibacillus paracasei</i>	159 ± 16.5	MN368269
	MG5171	<i>Lacticaseibacillus paracasei</i>	80.8 ± 6.4	MN368571
	MG5178	<i>Lacticaseibacillus paracasei</i>	83.9 ± 7.6	MN368273
	MG5185	<i>Lactiplantibacillus plantarum</i>	103.3 ± 18.4	MN368276
	MG5187	<i>Lactiplantibacillus plantarum</i>	68.5 ± 0.0	MN368582
	MG5188	<i>Lactiplantibacillus plantarum</i>	79.3 ± 1.8	MN749942
	MG5189	<i>Lacticaseibacillus paracasei</i>	75.9 ± 8.7	MN749943
	MG5200	<i>Lacticaseibacillus rhamnosus</i>	97.0 ± 0.9	MN368277
	MG5203	<i>Lactiplantibacillus plantarum</i>	44.8 ± 2.5	MN720602
	MG5227	<i>Weissella cibaria</i>	89.1 ± 0.6	MN368418
	MG5230	<i>Lactobacillus delbrueckii</i>	94.7 ± 2.0	MN368421
	MG5231	<i>Lactobacillus acidophilus</i>	59.0 ± 4.0	MN368422
	MG5260	<i>Lactiplantibacillus plantarum</i>	69.6 ± 3.9	MN749953
	MG5274	<i>Lacticaseibacillus zeae</i>	75.4 ± 3.6	MN759453
	MG5275	<i>Lacticaseibacillus casei</i>	68.8 ± 11.6	MN759454
	MG5276	<i>Lactiplantibacillus plantarum</i>	74.8 ± 9.0	MN759455
	MG5277	<i>Pediococcus acidilactici</i>	68.5 ± 4.0	MN759456
	MG5278	<i>Lactococcus lactis</i>	110.1 ± 8.6	MN759457
Fruit	MG5310	<i>Lacticaseibacillus paracasei</i>	59.0 ± 1.2	MN720512
	MG5259	<i>Lactobacillus delbrueckii</i>	113.0 ± 20.6	MN749952
Kimchi	MG5219	<i>Lacticaseibacillus paracasei</i>	80.1 ± 2.3	MN368207
	MG5220	<i>Lactobacillus helveticus</i>	101.6 ± 8.4	MN368208
	MG5221	<i>Leuconostoc mesenteroides</i>	99.7 ± 1.1	MN368209
	MG5223	<i>Weissella cibaria</i>	93.1 ± 13.4	MN368414
	MG5229	<i>Lactobacillus acidophilus</i>	66.7 ± 3.1	MN368420
	MG5234	<i>Weissella cibaria</i>	89.8 ± 5.1	MN720515

	MG5239	<i>Lactiplantibacillus plantarum</i>	72.8 ± 7.8	MN720520
	MG5243	<i>Lactiplantibacillus plantarum</i>	128.2 ± 38.7	MN720523
	MG5245	<i>Lactocaseibacillus paracasei</i>	67.4 ± 4.4	MN368278
	MG5246	<i>Lactilactobacillus curvatus</i>	83.1 ± 4.5	MN368279
	MG5270	<i>Lactiplantibacillus plantarum</i>	94.4 ± 7.4	MN759449
	MG5279	<i>Lactilactobacillus curvatus</i>	93.6 ± 6.9	MN759458
	MG5285	<i>Weissella cibaria</i>	53.4 ± 3.3	MN368068
	MG5355	<i>Lactiplantibacillus plantarum</i>	62.9 ± 11.4	MT225596
Seafood	MG5316	<i>Pediococcus pentosaceus</i>	59.4 ± 2.0	MN704679
	MG5324	<i>Lactiplantibacillus plantarum</i>	138.5 ± 8.5	MN704687