

Table S1. Antagonistic activity of *L. rhamnosus* GG fortified sea buckthorn (SBT) and apple juice (APJ) against *Shigella dysenteriae* during 14 days storage.

Viability of <i>S. dysenteriae</i> (log cfu/mL)	0 h	1 h	2 h	3 h	4 h	8 h
SBT+M (Day 0)	6.52±0.37	6.489±0.13	6.474±0.58	6.437±0.48	6.313±0.11	5.898±0.37
SBT+M (Day 7)	6.496±0.04	6.471±0.44	6.4589±0.25	6.3538±0.16	6.2105±0.27	5.982±0.42
SBT+M (Day 14)	6.45±0.18	6.430±0.15	6.4066±0.19	6.3981±0.57	6.305±0.34	5.937±0.05
SBT+M+LR (Day 0)	6.48±0.54	1	1	1	1	1
SBT+M+LR (Day 7)	6.57±0.11	4.4393±0.32	4.1498±0.28	1	1	1
SBT+M+LR (Day 14)	6.53±0.03	5.5602±0.58	4.4938±0.57	1	1	1
APJ+M (Day 0)	6.66±0.48	6.6358±0.13	6.62±0.15	6.6107±0.26	6.5622±0.47	6.2952±0.59
APJ+M (Day 7)	6.28±0.07	6.2601±0.28	6.25±0.13	6.2286±0.19	6.1477±0.03	5.9152±0.37
APJ+M (Day 14)	6.36±0.65	6.3405±0.62	6.3252±0.19	6.2797±0.03	6.2503±0.18	6.009±0.04
APJ+M+LR (Day 0)	6.55±0.36	6.500±0.05	6.478±0.42	5.47±0.15	1	1
APJ+M+LR (Day 7)	6.41±0.15	6.3636±0.72	6.3577±0.31	6.347±0.38	5.2621±0.06	1
APJ+M+LR (Day 14)	6.57±0.47	6.5298±0.15	6.5283±0.09	6.498±0.41	5.5489±0.08	1

Table S2. Antagonistic activity of *L. rhamnosus* GG fortified sea buckthorn (SBT) and apple juice (APJ) against *Shigella flexneri* during 14 days storage.

Viability of <i>S. flexneri</i> (log cfu/mL)	0 h	1 h	2 h	3 h	4 h	8 h
SBT+M (Day 0)	6.42±0.43	6.3992±0.27	6.3947±0.38	6.3734±0.08	6.3111±0.12	6.0627±0.28
SBT+M (Day 7)	6.35±0.28	6.3298±0.25	6.3224±0.04	6.264±0.29	6.2096±0.03	6.0101±0.10
SBT+M (Day 14)	6.47±0.17	6.4513±0.32	6.4452±0.19	6.4427±0.16	6.3224±0.49	6.1201±0.42
SBT+M+LR (Day 0)	6.22±0.07	6.1819±0.04	5.1943±0.26	3.6514±0.21	3.334±0.37	1
SBT+M+LR (Day 7)	6.34±0.13	6.3021±0.16	6.2582±0.47	5.3272±0.72	4.1462±0.05	1
SBT+M+LR (Day 14)	6.53±0.57	6.4925±0.38	6.4789±0.80	5.5188±0.35	4.4491±0.01	1
APJ+M (Day 0)	6.32±0.11	6.2993±0.24	6.2983±0.12	6.2974±0.02	6.2943±0.19	6.0761±0.05
APJ+M (Day 7)	6.48±0.37	6.461±0.04	6.4523±0.06	6.4429±0.17	6.3314±0.77	6.257±0.28
APJ+M (Day 14)	6.64±0.26	6.621±0.13	6.6155±0.33	6.6086±0.62	6.4835±0.21	6.4176±0.13
APJ+M+LR (Day 0)	6.38±0.02	6.3574±0.07	6.357±0.18	6.3555±0.13	6.3492±0.38	1
APJ+M+LR (Day 7)	6.51±0.51	6.492±0.29	6.4874±0.03	6.4859±0.05	6.4834±0.65	5.473±0.85
APJ+M+LR (Day 14)	6.43±0.48	6.4123±0.15	6.407±0.20	6.4038±0.18	6.399±0.09	5.415±0.14