



**Table S1.** Viable cell count (log CFU/mL) of *Lp. plantarum* LP95 during preliminary fermentation trial of soymilk at 20 °C, 28 °C and 37 °C. All values are expressed as mean  $\pm$  standard deviation ( $n = 3$ ). Different lowercase letters in each row indicate significant differences ( $p < 0.05$ ).

Fermentation time (hours)	Viable cell count 20 °C	Viable cell count 28 °C	Viable cell count 37 °C
0	7.29 $\pm$ 0.01 <sup>a</sup>	7.30 $\pm$ 0.01 <sup>a</sup>	7.32 $\pm$ 0.02 <sup>a</sup>
3	7.53 $\pm$ 0.02 <sup>c</sup>	8.01 $\pm$ 0.03 <sup>b</sup>	8.19 $\pm$ 0.03 <sup>a</sup>
6	7.85 $\pm$ 0.01 <sup>c</sup>	8.70 $\pm$ 0.01 <sup>b</sup>	8.89 $\pm$ 0.01 <sup>a</sup>
9	8.25 $\pm$ 0.03 <sup>c</sup>	8.93 $\pm$ 0.01 <sup>b</sup>	9.03 $\pm$ 0.04 <sup>a</sup>
24	9.17 $\pm$ 0.03 <sup>a</sup>	9.21 $\pm$ 0.04 <sup>a</sup>	9.23 $\pm$ 0.05 <sup>a</sup>
32	9.20 $\pm$ 0.04 <sup>a</sup>	9.23 $\pm$ 0.04 <sup>a</sup>	9.25 $\pm$ 0.06 <sup>a</sup>
48	9.17 $\pm$ 0.05 <sup>a</sup>	9.20 $\pm$ 0.02 <sup>a</sup>	9.24 $\pm$ 0.04 <sup>a</sup>
72	9.16 $\pm$ 0.03 <sup>a</sup>	9.21 $\pm$ 0.04 <sup>a</sup>	9.15 $\pm$ 0.05 <sup>a</sup>

**Table S2.** Changes in pH during preliminary fermentation trial of soymilk with *Lp. plantarum* LP95 at 20 °C, 28 °C and 37 °C. All values are expressed as mean  $\pm$  standard deviation ( $n = 3$ ). Different lowercase letters in each row indicate significant differences ( $p < 0.05$ ).

Fermentation time (hours)	pH 20 °C	pH 28 °C	pH 37 °C
0	6.40 $\pm$ 0.02 <sup>a</sup>	6.40 $\pm$ 0.03 <sup>a</sup>	6.40 $\pm$ 0.02 <sup>a</sup>
3	6.30 $\pm$ 0.02 <sup>a</sup>	6.23 $\pm$ 0.02 <sup>b</sup>	6.10 $\pm$ 0.02 <sup>c</sup>
6	6.20 $\pm$ 0.03 <sup>a</sup>	5.65 $\pm$ 0.01 <sup>b</sup>	5.33 $\pm$ 0.01 <sup>c</sup>
9	5.98 $\pm$ 0.02 <sup>a</sup>	5.31 $\pm$ 0.02 <sup>b</sup>	4.94 $\pm$ 0.04 <sup>c</sup>
24	5.05 $\pm$ 0.03 <sup>a</sup>	4.73 $\pm$ 0.03 <sup>b</sup>	4.27 $\pm$ 0.03 <sup>c</sup>
32	4.95 $\pm$ 0.03 <sup>a</sup>	4.59 $\pm$ 0.01 <sup>b</sup>	4.18 $\pm$ 0.03 <sup>c</sup>
48	4.76 $\pm$ 0.02 <sup>a</sup>	4.41 $\pm$ 0.02 <sup>b</sup>	4.15 $\pm$ 0.02 <sup>c</sup>
72	4.47 $\pm$ 0.03 <sup>a</sup>	4.12 $\pm$ 0.02 <sup>b</sup>	4.10 $\pm$ 0.03 <sup>b</sup>

**Table S3.** Changes of viable cell count (log CFU/mL) and pH in soymilk during the fermentation (37 °C) and storage stage (4 °C) using *Lp. plantarum* LP95 as starter. All values are expressed as mean  $\pm$  standard deviation ( $n = 3$ ). Different lowercase letters in each column indicate significant differences ( $p < 0.05$ ).

Stages	Time	Viable cell count	pH
Fermentation (hours)	0	8.03 $\pm$ 0.03 <sup>e</sup>	6.41 $\pm$ 0.01 <sup>a</sup>
	3	8.29 $\pm$ 0.02 <sup>d</sup>	5.99 $\pm$ 0.02 <sup>b</sup>
	6	9.05 $\pm$ 0.04 <sup>b</sup>	5.18 $\pm$ 0.02 <sup>c</sup>
	9	9.15 $\pm$ 0.02 <sup>a</sup>	4.82 $\pm$ 0.03 <sup>d</sup>
	24	9.20 $\pm$ 0.03 <sup>a</sup>	4.17 $\pm$ 0.03 <sup>e</sup>
Storage (days)	1	9.21 $\pm$ 0.04 <sup>a</sup>	4.16 $\pm$ 0.01 <sup>e</sup>
	7	9.05 $\pm$ 0.05 <sup>b</sup>	4.15 $\pm$ 0.01 <sup>e</sup>
	14	8.68 $\pm$ 0.01 <sup>c</sup>	4.16 $\pm$ 0.02 <sup>e</sup>
	21	8.10 $\pm$ 0.03 <sup>e</sup>	4.15 $\pm$ 0.02 <sup>e</sup>
	28	7.70 $\pm$ 0.04 <sup>f</sup>	4.15 $\pm$ 0.02 <sup>e</sup>
	35	7.60 $\pm$ 0.02 <sup>g</sup>	4.14 $\pm$ 0.03 <sup>e</sup>
	42	7.51 $\pm$ 0.01 <sup>h</sup>	4.14 $\pm$ 0.02 <sup>e</sup>
	49	7.48 $\pm$ 0.02 <sup>h</sup>	4.14 $\pm$ 0.01 <sup>e</sup>

**Table S4.** Values of consistency coefficient ( $K$ ) and flow behavior index ( $n$ ) obtained by fitting the flow curves with Ostwald de Waele model. All values are expressed as mean  $\pm$  standard deviation ( $n = 3$ ). Different lowercase letters in each column indicate significant differences ( $p < 0.05$ ).

	$K$	$n$	$R^2$
Fermentation stage (37°C)			
0 hour	0.70 $\pm$ 0.04 <sup>b</sup>	0.68 $\pm$ 0.01 <sup>a</sup>	0.992
24 hours	5.27 $\pm$ 0.23 <sup>a</sup>	0.41 $\pm$ 0.01 <sup>b</sup>	0.990
Storage stage (4°C)			
0 day	7.40 $\pm$ 0.19 <sup>a</sup>	0.39 $\pm$ 0.01 <sup>b</sup>	0.995
21 days	7.18 $\pm$ 0.25 <sup>a</sup>	0.35 $\pm$ 0.01 <sup>c</sup>	0.986
49 days	3.36 $\pm$ 0.21 <sup>b</sup>	0.44 $\pm$ 0.01 <sup>a</sup>	0.977

Ostwald de Waele model:  $\tau = K \cdot \dot{\gamma}^n$

where  $\tau$  is the shear stress (Pa),  $\dot{\gamma}$  the shear rate (1/s),  $K$  is the consistency coefficient (Pa  $\cdot$  s <sup>$n$</sup> ), corresponding to the fluid consistency and  $n$  is the flow behaviour index (dimensionless number).

For  $n$  values =1 the fluid behaves as a Newtonian fluid, for  $n < 1$  the fluid is considered pseudoplastic or shear thinning fluid, and for  $n > 1$  the fluid behaves as dilatant or shear thickening fluid.

**Table S5.** Apparent viscosity (Pa s) at 50 s<sup>-1</sup> of soymilk during fermentation stage at 37 °C using *Lp. plantarum* LP95 as starter. All values are expressed as mean  $\pm$  standard deviation ( $n = 3$ ). Different lowercase letters in each row indicate significant differences ( $p < 0.05$ ).

Fermentation stage (hours)	
0	24
0.195 $\pm$ 0.003 <sup>a</sup>	0.573 $\pm$ 0.028 <sup>b</sup>

**Table S6.** Apparent viscosity (Pa s) at 50 s<sup>-1</sup> of fermented soymilk during storage stage at 4 °C using *Lp. plantarum* LP95 as starter. All values are expressed as mean  $\pm$  standard deviation ( $n = 3$ ). Different lowercase letters in each row indicate significant differences ( $p < 0.05$ ).

Storage stage 4 °C (days)							
0	7	14	21	28	35	42	49
0.670 $\pm$ 0.018 <sup>a</sup>	0.706 $\pm$ 0.045 <sup>a</sup>	0.628 $\pm$ 0.068 <sup>a</sup>	0.564 $\pm$ 0.033 <sup>b</sup>	0.492 $\pm$ 0.030 <sup>b</sup>	0.434 $\pm$ 0.027 <sup>c</sup>	0.397 $\pm$ 0.022 <sup>c</sup>	0.368 $\pm$ 0.021 <sup>c</sup>

**Table S7.** Variations of Total Antioxidant Activity (TEAC; mg Trolox Eq. 100 g<sup>-1</sup> D.W.) in soymilk during fermentation stage using *Lp. plantarum* LP95 as starter. All values are expressed as mean  $\pm$  standard deviation ( $n = 3$ ). Different lowercase letters in each row indicate significant differences ( $p < 0.05$ ).

Fermentation stage (hours)				
0	3	6	9	24
123.35 $\pm$ 1.58 <sup>a</sup>	110.30 $\pm$ 6.03 <sup>b</sup>	121.42 $\pm$ 5.26 <sup>a</sup>	105.79 $\pm$ 2.34 <sup>b</sup>	108.76 $\pm$ 3.25 <sup>b</sup>

**Table S8.** Variations of Thiobarbituric Acid Reactive-Substances (TBARS;  $\mu$ g MDA Eq. 100 g<sup>-1</sup> D.W.) in soymilk during fermentation stage using *Lp. plantarum* LP95 as starter. All values are expressed as mean  $\pm$  standard deviation ( $n = 3$ ). Different lowercase letters in each row indicate significant differences ( $p < 0.05$ ).

Fermentation stage (hours)				
0	3	6	9	24
97.11 $\pm$ 1.33 <sup>a</sup>	80.26 $\pm$ 2.12 <sup>b</sup>	65.53 $\pm$ 1.30 <sup>c</sup>	66.68 $\pm$ 1.35 <sup>c</sup>	40.17 $\pm$ 1.88 <sup>d</sup>