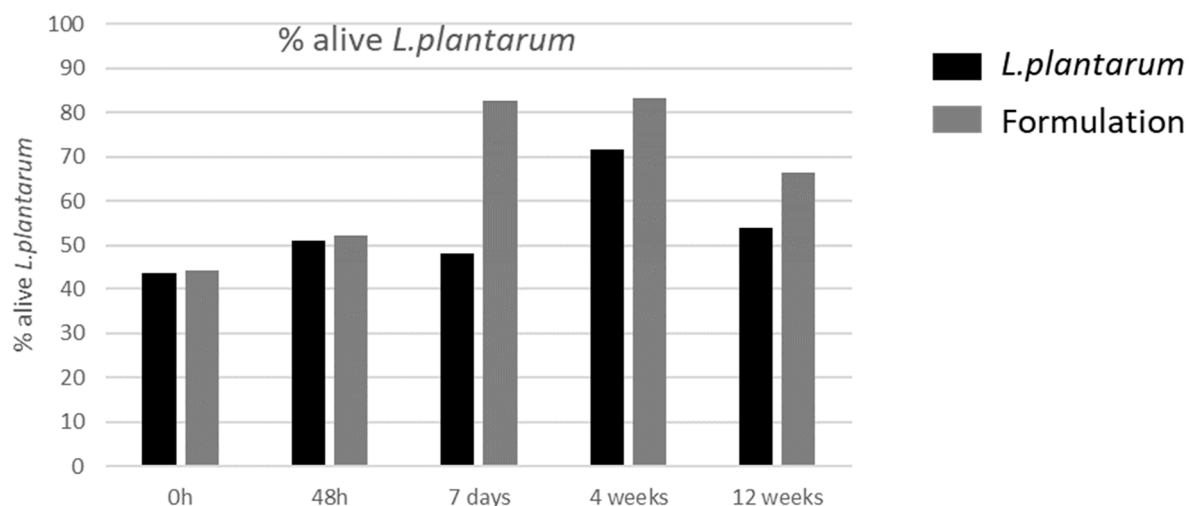


# Supplementary Materials:



**Figure S1.** Percentage of Alive *L. plantarum* compared to complete formulation over time.

The serum formulation SkinDuo™ was reconstituted with sterile water, after time points: 0 h, 48 h, 7 days, 4 weeks and 12 weeks. For each condition the ratio of the average CFU/reaction value for PMA-qPCR samples over the average CFU/reaction value for Total live bacteria was calculated as ratio of live bacteria for each condition tested.

**Table S1.** Skin irritation patch tested on 25 healthy subjects.

Sample	Sex	Erythema 15'	Oedema 15'	Erythema 1h	Oedema 1h	Erythema 24h	Oedema 24h
1	m	0	0	0	0	0	0
2	f	0	0	1	0	1	0
3	m	0	0	0	0	0	0
4	f	0	0	0	0	0	0
5	f	0	0	0	0	0	0
6	f	0	0	0	0	0	0
7	m	0	0	0	0	0	0
8	f	0	0	0	0	0	0
9	f	0	0	0	0	0	0
10	f	0	0	0	0	0	0
11	f	0	0	0	0	0	0
12	m	0	0	0	0	0	0
13	m	0	0	0	0	0	0
14	m	0	0	0	0	0	0
15	f	0	0	1	0	0	0
16	f	0	0	0	0	0	0
17	m	0	0	0	0	0	0
18	m	0	0	0	0	0	0
19	m	0	0	0	0	0	0
20	f	0	0	0	0	0	0
21	f	0	0	0	0	0	0
22	f	0	0	0	0	0	0
23	m	0	0	0	0	0	0
24	m	0	0	0	0	0	0
25	f	0	0	0	0	0	0

**Table S2.** *L. plantarum* viability as CFU/mL on hyposkin® models after SkinDuo™ treatment for two independent experiments in triplicates, showing the mean and SD in CFU/mL. One vial was used and tested for SkinDuo™ n=1, n=2 tested at times 0 h, 8 h, 24 h and 48 h.

Serum Skin Duo™	n=1			n=2			Mean/CFU/mL	SD
Time	5.56 x 10 <sup>6</sup>	6.12 x 10 <sup>6</sup>	5.64 x 10 <sup>6</sup>	5.56 x 10 <sup>6</sup>	6.12 x 10 <sup>6</sup>	5.64 x 10 <sup>6</sup>	5.77 x 10 <sup>6</sup>	247296.5
0 h	3.54 x 10 <sup>6</sup>	3.70x 10 <sup>6</sup>	4.06x 10 <sup>6</sup>	5.22x 10 <sup>6</sup>	4.60x 10 <sup>6</sup>	4.82x 10 <sup>6</sup>	4.32 x 10 <sup>6</sup>	605355.7
8 h	2.00 x 10 <sup>6</sup>	3.20 x 10 <sup>6</sup>	3.50 x 10 <sup>6</sup>	2.60 x 10 <sup>5</sup>	3.62 x 10 <sup>6</sup>	2.00 x 10 <sup>6</sup>	2.43 x 10 <sup>6</sup>	1171367
24 h	3.36 x 10 <sup>6</sup>	4.32 x 10 <sup>6</sup>	3.50 x 10 <sup>6</sup>	1.64 x 10 <sup>7</sup>	1.83 x 10 <sup>7</sup>	1.42 x 10 <sup>7</sup>	1.00 x 10 <sup>7</sup>	6415278
48 h	1.64 x 10 <sup>7</sup>	1.74 x 10 <sup>7</sup>	1.91 x 10 <sup>7</sup>	2.15 x 10 <sup>7</sup>	1.28 x 10 <sup>7</sup>	1.37 x 10 <sup>7</sup>	1.68 x 10 <sup>7</sup>	2991174