

**Table S1.** Physicochemical parameters of whey cheese samples. Average values and standard deviation ( $\pm$ ).

DRY MATTER			
Storage time (days)	C	LA5	LA5FQ4
1	16.83 $\pm$ 0.36 <sup>a,A</sup>	19.50 $\pm$ 0.77 <sup>a,B</sup>	18.82 $\pm$ 0.28 <sup>a,b,B</sup>
7	18.66 $\pm$ 0.59 <sup>b,A</sup>	19.90 $\pm$ 0.25 <sup>a,B</sup>	20.61 $\pm$ 0.34 <sup>b,B</sup>
14	19.23 $\pm$ 0.33 <sup>b,A</sup>	21.46 $\pm$ 3.10 <sup>a,A</sup>	20.04 $\pm$ 1.82 <sup>a,b,A</sup>
21	18.11 $\pm$ 0.36 <sup>b,A</sup>	19.44 $\pm$ 0.43 <sup>a,B</sup>	19.25 $\pm$ 0.52 <sup>a,b,B</sup>
28	16.07 $\pm$ 0.51 <sup>a,A</sup>	19.04 $\pm$ 1.42 <sup>a,B</sup>	18.10 $\pm$ 0.71 <sup>a,A,B</sup>
<i>a<sub>w</sub></i>			
Storage time (days)	C	LA5	LA5FQ4
1	0.934 $\pm$ 0.00 <sup>a,A</sup>	0.936 $\pm$ 0.00 <sup>a,b,A</sup>	0.943 $\pm$ 0.00 <sup>b,c,B</sup>
7	0.937 $\pm$ 0.00 <sup>c,A</sup>	0.944 $\pm$ 0.00 <sup>c,A,B</sup>	0.946 $\pm$ 0.00 <sup>c,B</sup>
14	0.938 $\pm$ 0.00 <sup>c,A</sup>	0.939 $\pm$ 0.00 <sup>b,c,A</sup>	0.940 $\pm$ 0.00 <sup>b,A</sup>
21	0.937 $\pm$ 0.00 <sup>b,c,A</sup>	0.938 $\pm$ 0.00 <sup>b,c,A</sup>	0.939 $\pm$ 0.00 <sup>b,A</sup>
28	0.935 $\pm$ 0.00 <sup>a,b,B</sup>	0.932 $\pm$ 0.00 <sup>a,A</sup>	0.933 $\pm$ 0.00 <sup>a,A</sup>
pH			
Storage time (days)	C	LA5	LA5FQ4
1	6.67 $\pm$ 0.06 <sup>b,C</sup>	5.27 $\pm$ 0.06 <sup>a,b,A</sup>	5.80 $\pm$ 0.10 <sup>d,B</sup>
7	6.63 $\pm$ 0.06 <sup>b,B</sup>	5.37 $\pm$ 0.06 <sup>b,c,A</sup>	5.43 $\pm$ 0.06 <sup>a,b,A</sup>
14	6.93 $\pm$ 0.06 <sup>c,C</sup>	5.47 $\pm$ 0.06 <sup>c,A</sup>	5.67 $\pm$ 0.06 <sup>c,d,B</sup>
21	6.53 $\pm$ 0.15 <sup>b,B</sup>	5.27 $\pm$ 0.06 <sup>b,A</sup>	5.23 $\pm$ 0.06 <sup>a,b,A</sup>
28	6.17 $\pm$ 0.12 <sup>a,C</sup>	5.07 $\pm$ 0.06 <sup>a,A</sup>	5.47 $\pm$ 0.12 <sup>b,c,B</sup>
TITRATABLE ACIDITY			
Storage time (days)	C	LA5	LA5FQ4
1	0.035 $\pm$ 0.01 <sup>a,A</sup>	0.208 $\pm$ 0.01 <sup>a,C</sup>	0.164 $\pm$ 0.01 <sup>a,B</sup>
7	0.089 $\pm$ 0.00 <sup>b,A</sup>	0.431 $\pm$ 0.01 <sup>c,C</sup>	0.399 $\pm$ 0.01 <sup>d,B</sup>
14	0.100 $\pm$ 0.01 <sup>b,A</sup>	0.570 $\pm$ 0.02 <sup>d,C</sup>	0.246 $\pm$ 0.02 <sup>b,B</sup>
21	0.101 $\pm$ 0.00 <sup>b,A</sup>	0.378 $\pm$ 0.00 <sup>b,C</sup>	0.261 $\pm$ 0.01 <sup>b,B</sup>
28	0.176 $\pm$ 0.01 <sup>c,A</sup>	0.451 $\pm$ 0.01 <sup>c,C</sup>	0.332 $\pm$ 0.02 <sup>c,B</sup>

Different superscript letters (a,b,c) indicate differences for the same product in different ripening days. Superscript capital letters (A,B,C) indicate differences between products at the same ripening day.

**Table S2.** CIEL\*a\*b\* parameters of whey cheese samples. Average values and standard deviation ( $\pm$ ).

L*			
Storage time (days)	C	LA5	LA5FQ4
1	86.90 $\pm$ 1.49 <sup>a,b,B</sup>	87.23 $\pm$ 1.79 <sup>a,B</sup>	82.00 $\pm$ 0.35 <sup>a,A</sup>
7	82.17 $\pm$ 2.07 <sup>a,A</sup>	87.10 $\pm$ 3.20 <sup>a,A,B</sup>	91.17 $\pm$ 3.20 <sup>b,B</sup>
14	83.90 $\pm$ 3.56 <sup>a,b,A</sup>	87.00 $\pm$ 2.76 <sup>a,A</sup>	87.13 $\pm$ 2.37 <sup>a,b,A</sup>
21	88.00 $\pm$ 2.82 <sup>a,b,A</sup>	86.70 $\pm$ 0.61 <sup>a,A</sup>	87.90 $\pm$ 2.51 <sup>a,b,A</sup>
28	89.83 $\pm$ 0.51 <sup>b,B</sup>	90.43 $\pm$ 1.85 <sup>a,B</sup>	84.23 $\pm$ 2.29 <sup>a,A</sup>
<i>a</i> *			
Storage time (days)	C	LA5	LA5FQ4
1	-3.43 $\pm$ 0.21 <sup>a,B</sup>	-2.57 $\pm$ 0.23 <sup>a,A</sup>	-2.8 $\pm$ 0.26 <sup>a,A</sup>
7	-3.07 $\pm$ 0.32 <sup>a,A</sup>	-3.50 $\pm$ 0.40 <sup>b,c,A</sup>	-2.93 $\pm$ 0.06 <sup>a,A</sup>
14	-3.20 $\pm$ 0.62 <sup>a,A</sup>	-3.77 $\pm$ 0.15 <sup>c,A</sup>	-3.13 $\pm$ 0.31 <sup>a,A</sup>
21	-2.43 $\pm$ 0.06 <sup>a,A</sup>	-2.57 $\pm$ 0.45 <sup>a,A</sup>	-2.70 $\pm$ 0.17 <sup>a,A</sup>
28	-2.70 $\pm$ 0.40 <sup>a,A</sup>	-2.63 $\pm$ 0.32 <sup>a,b,A</sup>	-3.10 $\pm$ 0.17 <sup>a,A</sup>

Storage time (days)	b*		
	C	LA5	LA5FQ4
1	6.27 ± 0.55 <sup>a,A</sup>	5.80 ± 0.20 <sup>a,A</sup>	6.53 ± 1.17 <sup>a,A</sup>
7	7.83 ± 0.06 <sup>a,A,B</sup>	8.87 ± 0.80 <sup>c,B</sup>	7.50 ± 0.40 <sup>a,A</sup>
14	8.13 ± 1.95 <sup>a,A</sup>	8.80 ± 0.30 <sup>c,A</sup>	6.87 ± 0.45 <sup>a,A</sup>
21	6.77 ± 0.29 <sup>a,A</sup>	6.97 ± 0.51 <sup>a,b,A</sup>	6.77 ± 0.64 <sup>a,A</sup>
28	6.17 ± 0.15 <sup>a,A</sup>	7.30 ± 0.26 <sup>b,B</sup>	7.40 ± 0.52 <sup>a,B</sup>

Different superscript letters (a,b,c) indicate differences for the same product in different ripening days. Superscript capital letters (A,B,C) indicate differences between products at the same ripening day.

**Table S3.** Microbiological counts of whey cheese samples. Average values and standard deviation (±).

LACTOCOCCUS			
Storage time (days)	C	LA5	LA5FQ4
1	6.46 ± 0.14 <sup>a,A</sup>	8.18 ± 0.10 <sup>a,B</sup>	8.81 ± 0.03 <sup>b,C</sup>
7	7.90 ± 0.03 <sup>b,A</sup>	8.53 ± 0.21 <sup>a,B</sup>	8.08 ± 0.11 <sup>a,A</sup>
14	8.51 ± 0.34 <sup>c,A</sup>	9.47 ± 0.12 <sup>b,B</sup>	9.33 ± 0.18 <sup>c,B</sup>
21	8.71 ± 0.16 <sup>c,A</sup>	8.80 ± 0.03 <sup>a,A</sup>	9.21 ± 0.01 <sup>c,B</sup>
28	8.32 ± 0.31 <sup>b, c,A</sup>	8.21 ± 0.39 <sup>a,A</sup>	9.06 ± 0.06 <sup>b,c,B</sup>
LACTOBACILLUS			
Storage time (days)	C	LA5	LA5FQ4
1	5.49 ± 0.02 <sup>a,A</sup>	8.27 ± 0.08 <sup>a,B</sup>	8.89 ± 0.01 <sup>b,C</sup>
7	5.96 ± 0.20 <sup>a,A</sup>	8.33 ± 0.21 <sup>a,B</sup>	8.21 ± 0.26 <sup>a,B</sup>
14	7.03 ± 0.38 <sup>b,A</sup>	9.36 ± 0.20 <sup>b,B</sup>	9.19 ± 0.04 <sup>b,B</sup>
21	7.23 ± 0.53 <sup>b,A</sup>	8.44 ± 0.33 <sup>a,B</sup>	9.19 ± 0.09 <sup>b,C</sup>
28	8.43 ± 0.62 <sup>d,A</sup>	8.48 ± 0.25 <sup>a,A</sup>	9.18 ± 0.07 <sup>b,B</sup>
YEASTS AND MOULDS			
Storage time (days)	C	LA5	LA5FQ4
1	4.75 ± 0.35 <sup>a,A</sup>	5.74 ± 0.25 <sup>a,B</sup>	5.27 ± 0.24 <sup>a,b,A,B</sup>
7	4.10 ± 0.20 <sup>a,A</sup>	5.93 ± 0.40 <sup>a,B</sup>	5.73 ± 0.51 <sup>a,b,B</sup>
14	6.61 ± 0.44 <sup>b,c,A</sup>	6.24 ± 0.95 <sup>a,A</sup>	6.27 ± 0.25 <sup>b,A</sup>
21	7.46 ± 0.14 <sup>c,B</sup>	5.65 ± 0.27 <sup>a,A</sup>	5.02 ± 1.04 <sup>a,A</sup>
28	6.48 ± 0.37 <sup>b,B</sup>	6.72 ± 0.34 <sup>a,B</sup>	5.74 ± 0.30 <sup>a,b,A</sup>

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