

SUPPLEMENTARY MATERIAL

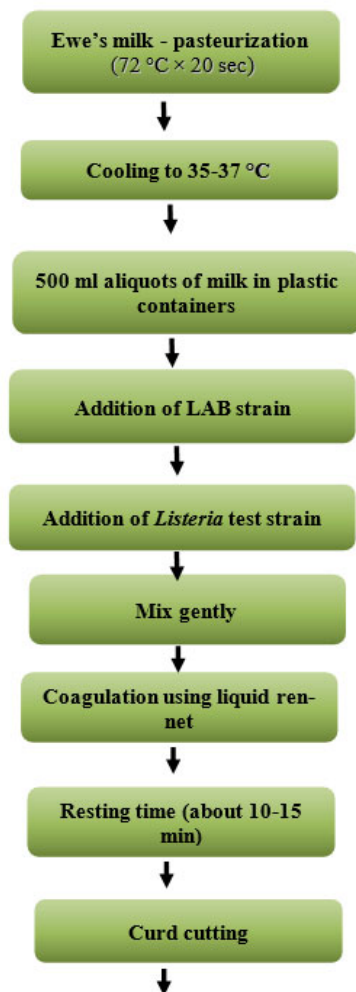


Figure S1. Flow diagram of the cheese manufacturing procedure.

Table S1. -In vitro characteristics related to technological and antimicrobial properties of the microbial strains used in the study.

Microbial strains	Isolated from MBDS code #		Technological properties	Antimicrobial properties	Reference
<i>L. lactis</i> 16FS16	Sheep cheese	UNICA B39	<ul style="list-style-type: none"> 6.5% NaCl + <i>B</i>-galactosidase + Nisin A producer 	<ul style="list-style-type: none"> Antimicrobial activity Antilisterial activity in vitro 	Cosentino et al., 2012 [37] Pisano et al., 2015 [43] Siroli et al., 2019 [44] Bukvicki et al., 2020 [45]
<i>L. lactis</i> 11FS16	Sheep cheese	UNICA B40	<ul style="list-style-type: none"> 6.5% NaCl + <i>B</i>-galactosidase + Nisin A producer 	<ul style="list-style-type: none"> Antimicrobial activity Antilisterial activity in vitro 	Cosentino et al., 2012 [37] Pisano et al., 2015 [43] Siroli et al., 2019 [44] Bukvicki et al., 2020 [45]

<i>L. lactis</i> 6LS5	Raw sheep milk	UNICA B46	<ul style="list-style-type: none"> • 6.5% NaCl + • <i>B</i>-galactosidase + • Nisin Z producer 	<ul style="list-style-type: none"> • Antimicrobial activity • Antilisterial activity in vitro 	Cosentino et al., 2012 [37] Pisano et al., 2015 [43] Siroli et al., 2019 [44] Bukvicki et al., 2020 [45]
<i>L. lactis</i> 1FS171M	Sheep cheese	UNICA B108	<ul style="list-style-type: none"> • Milk coagulation + • 6.5% NaCl + 	<ul style="list-style-type: none"> • Antimicrobial activity 	Cosentino et al., 2002 [46] Master thesis (unpublished)
<i>L. lactis</i> 2A/SB	Sheep cheese whey	UNICA B56	<ul style="list-style-type: none"> • Milk coagulation + 	<ul style="list-style-type: none"> • Antimicrobial activity 	Cosentino et al., 2002 [46] Master thesis (unpublished)
<i>L. lactis</i> 9/20234	Raw sheep milk	UNICA B47	<ul style="list-style-type: none"> • 6.5% NaCl + • <i>B</i>-galactosidase + • Nisin A producer 	<ul style="list-style-type: none"> • Antimicrobial activity • Antilisterial activity in vitro 	Cosentino et al., 2012 [37] Pisano et al., 2015 [43] Siroli et al., 2019 [44] Bukvicki et al., 2020 [45]
<i>Lpb. plantarum</i> 62LP39b	Raw sheep milk	UNICA B28	<ul style="list-style-type: none"> • Milk coagulation + 	<ul style="list-style-type: none"> • Antibacterial activity • Antifungal activity 	Pisano et al., 2008 [47] (<i>L. plantarum</i> DBS273 renamed as <i>L. plantarum</i> 62LP39B)
<i>Lpb. plantarum</i> 11/20966	Raw sheep milk	UNICA B26	<ul style="list-style-type: none"> • Milk coagulation + • <i>B</i>-galactosidase + 	<ul style="list-style-type: none"> • Antibacterial activity • Antifungal activity 	Cosentino et al., 2002 [46] Pisano et al., 2014 [39] Cosentino et al., 2018 [3]
<i>Lpb. plantarum</i> 4A/20045	Raw sheep milk	UNICA B29	<ul style="list-style-type: none"> • Milk coagulation + 	<ul style="list-style-type: none"> • Antifungal activity 	Cosentino et al., 2002 [46] Cosentino et al., 2018 [3]
<i>Lpb. plantarum</i> 19/20711	Raw sheep milk	UNICA B25	<ul style="list-style-type: none"> • Milk coagulation + • <i>B</i>-galactosidase + 	<ul style="list-style-type: none"> • Antibacterial activity • Antifungal activity 	Cosentino et al., 2002 [46] Pisano et al., 2014 [39] Cosentino et al., 2018 [3]
<i>Lpb. plantarum</i> 1B3M	Sheep cheese	UNICA B30	<ul style="list-style-type: none"> • Milk coagulation + 	<ul style="list-style-type: none"> • Antifungal activity 	Cosentino et al., 2002 [46] Cosentino et al., 2018 [3]
<i>Lpb. plantarum</i> 4/16898	Raw sheep milk	UNICA B27	<ul style="list-style-type: none"> • Milk coagulation + • <i>B</i>-galactosidase + 	<ul style="list-style-type: none"> • Antibacterial activity • Antifungal activity 	Cosentino et al., 2002 [46] Pisano et al., 2014 [39] Cosentino et al., 2018 [3]
<i>Lpb. plantarum</i> 1/14537	Raw sheep milk	UNICA B32	<ul style="list-style-type: none"> • Milk coagulation + 	<ul style="list-style-type: none"> • Antifungal activity 	Cosentino et al., 2002 [46] Cosentino et al., 2018 [3]

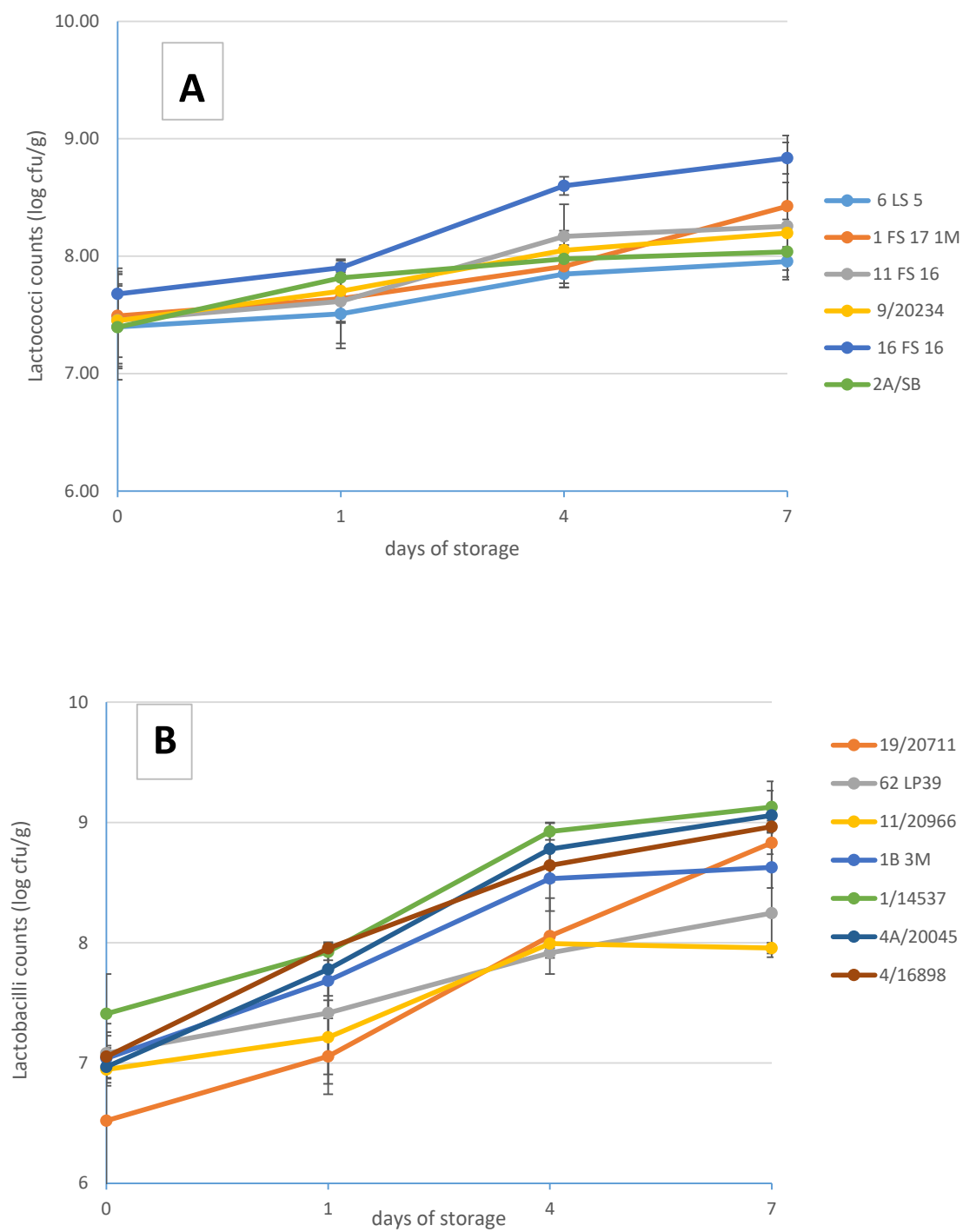


Figure S2. Evolution of Lactococci (**A**) or Lactobacilli (**B**) counts in experimental cheeses during storage (0, 1, 4, 7 days) at 10°C (means \pm SD of two sample)