

**Table S1** | Effects of nisin-biogel at 1/2 MIC, 1/4 MIC and 1/8 MIC and clindamycin at 1/2 MIC on *agrI*, *spA*, *atl*, *clfA*, *coa*, *icaA* and *icaD* mRNA expression for the isolates A 5.2, A 6.3, B 1.1, B 14.2, Z 1.1 and Z 5.2. Results are expressed as n-fold differences in ‘gene under study/*gyrB*’ ratio in the presence of the different conditions described above relative to ‘gene under study/*gyrB*’ ratio in the growth control (no antimicrobial). Values are present as mean values  $\pm$  SD (two repeated different experiments), except for the *clfA/gyrB* fold change for the isolate Z 5.2, since only one assay was performed. Asterisks indicate statistically significant differences between treatments and between treatments and control for each clinical isolate (\*= $p<0.05$ ; \*\*= $p<0.01$ ; \*\*\*= $p<0.001$ , compared with the results of the corresponding control).

A 5.2	<i>agrI/gyrB</i> fold change	<i>spA/gyrB</i> fold change	<i>atl/gyrB</i> fold change	<i>clfA/gyrB</i> fold change	<i>coa/gyrB</i> fold change	<i>icaA/gyrB</i> fold change	<i>icaD/gyrB</i> fold change
Only isolate	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00
Isolate + 1/2 MIC CLI	0.04 $\pm$ 0.01**	0.34 $\pm$ 0.08	2.10 $\pm$ 0.15	1.79 $\pm$ 0.00**	4.88 $\pm$ 3.60	0.33 $\pm$ 0.10	0.48 $\pm$ 0.12
Isolate + 1/2 MIC NB	0.06 $\pm$ 0.03*	5.28 $\pm$ 1.81	1.11 $\pm$ 0.33	0.60 $\pm$ 0.24	6.36 $\pm$ 0.35	0.79 $\pm$ 0.12	1.13 $\pm$ 0.03
Isolate + 1/4 MIC NB	0.06 $\pm$ 0.03*	7.27 $\pm$ 3.75	1.09 $\pm$ 0.17	0.85 $\pm$ 0.37	6.43 $\pm$ 1.50	0.83 $\pm$ 0.23	1.30 $\pm$ 0.13
Isolate + 1/8 MIC NB	0.06 $\pm$ 0.01**	4.24 $\pm$ 0.25*	1.08 $\pm$ 0.34	0.45 $\pm$ 0.12	3.26 $\pm$ 2.69	0.89 $\pm$ 0.19	0.89 $\pm$ 0.34
B 14.2	<i>agrI/gyrB</i> fold change	<i>spA/gyrB</i> fold change	<i>atl/gyrB</i> fold change	<i>clfA/gyrB</i> fold change	<i>coa/gyrB</i> fold change	<i>icaA/gyrB</i> fold change	<i>icaD/gyrB</i> fold change
Only isolate	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00
Isolate + 1/2 MIC CLI	0.03 $\pm$ 0.02*	0.24 $\pm$ 0.04	1.87 $\pm$ 0.38	1.28 $\pm$ 0.23	2.89 $\pm$ 1.15	1.08 $\pm$ 0.21	1.10 $\pm$ 0.05
Isolate + 1/2 MIC NB	0.06 $\pm$ 0.02*	0.67 $\pm$ 0.17	0.87 $\pm$ 0.56	0.31 $\pm$ 0.12	2.81 $\pm$ 0.23	0.79 $\pm$ 0.08	0.77 $\pm$ 0.04
Isolate + 1/4 MIC NB	0.09 $\pm$ 0.02*	0.99 $\pm$ 0.31	0.83 $\pm$ 0.44	0.29 $\pm$ 0.03*	2.05 $\pm$ 0.76	0.67 $\pm$ 0.12	0.86 $\pm$ 0.04
Isolate + 1/8 MIC NB	0.05 $\pm$ 0.03*	0.61 $\pm$ 0.23	0.38 $\pm$ 0.11	0.17 $\pm$ 0.03*	2.65 $\pm$ 0.12*	0.73 $\pm$ 0.04	0.97 $\pm$ 0.07
Z 5.2	<i>agrI/gyrB</i> fold change	<i>spA/gyrB</i> fold change	<i>atl/gyrB</i> fold change	<i>clfA/gyrB</i> fold change	<i>coa/gyrB</i> fold change	<i>icaA/gyrB</i> fold change	<i>icaD/gyrB</i> fold change
Only isolate	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00
Isolate + 1/2 MIC CLI	0.18 $\pm$ 0.09	0.19 $\pm$ 0.06*	2.59 $\pm$ 1.77	5.54	5.43 $\pm$ 4.19	0.40 $\pm$ 0.28	0.43 $\pm$ 0.27
Isolate + 1/2 MIC NB	0.14 $\pm$ 0.02*	0.34 $\pm$ 0.07	0.69 $\pm$ 0.14	0.09	4.67 $\pm$ 3.62	1.37 $\pm$ 0.29	0.98 $\pm$ 0.00
Isolate + 1/4 MIC NB	0.15 $\pm$ 0.04*	0.36 $\pm$ 0.17	0.59 $\pm$ 0.09	0.34	8.90 $\pm$ 8.12	1.49 $\pm$ 0.29	1.06 $\pm$ 0.13
Isolate + 1/8 MIC NB	0.29 $\pm$ 0.1	0.57 $\pm$ 0.33	0.55 $\pm$ 0.24	1.08	7.83 $\pm$ 6.70	1.77 $\pm$ 0.53	1.10 $\pm$ 0.15
A 6.3	<i>agrI/gyrB</i> fold change	<i>spA/gyrB</i> fold change	<i>atl/gyrB</i> fold change	<i>clfA/gyrB</i> fold change	<i>coa/gyrB</i> fold change	<i>icaA/gyrB</i> fold change	<i>icaD/gyrB</i> fold change
Only isolate	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00
Isolate + 1/2 MIC CLI	0.24 $\pm$ 0.15	1.13 $\pm$ 0.68	2.08 $\pm$ 0.16	0.76 $\pm$ 0.07	12.13 $\pm$ 2.45	0.17 $\pm$ 0.03	0.23 $\pm$ 0.12
Isolate + 1/2 MIC NB	0.28 $\pm$ 0.07	1.66 $\pm$ 1.17	0.75 $\pm$ 0.26	0.42 $\pm$ 0.07	35.54 $\pm$ 15.73	1.10 $\pm$ 0.28	1.80 $\pm$ 0.18
Isolate + 1/4 MIC NB	0.45 $\pm$ 0.20	1.39 $\pm$ 0.49	0.71 $\pm$ 0.14	0.41 $\pm$ 0.07	29.38 $\pm$ 3.46	1.57 $\pm$ 0.43	2.28 $\pm$ 0.91
Isolate + 1/8 MIC NB	0.41 $\pm$ 0.17	2.33 $\pm$ 0.75	0.68 $\pm$ 0.31	0.52 $\pm$ 0.13	19.20 $\pm$ 2.71	1.64 $\pm$ 0.44	1.80 $\pm$ 0.37
B 1.1	<i>agrI/gyrB</i> fold change	<i>spA/gyrB</i> fold change	<i>atl/gyrB</i> fold change	<i>clfA/gyrB</i> fold change	<i>coa/gyrB</i> fold change	<i>icaA/gyrB</i> fold change	<i>icaD/gyrB</i> fold change
Only isolate	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00	1.00 $\pm$ 0.00
Isolate + 1/2 MIC CLI	0.20 $\pm$ 0.16	0.29 $\pm$ 0.11	0.35 $\pm$ 0.26	1.32 $\pm$ 0.85	7.54 $\pm$ 0.07**	1.55 $\pm$ 0.49	1.33 $\pm$ 0.02*
Isolate + 1/2 MIC NB	0.10 $\pm$ 0.05*	0.46 $\pm$ 0.10	0.14 $\pm$ 0.10	0.29 $\pm$ 0.21	9.94 $\pm$ 3.05	0.73 $\pm$ 0.09	1.04 $\pm$ 0.06
Isolate + 1/4 MIC NB	0.13 $\pm$ 0.04*	0.71 $\pm$ 0.42	0.11 $\pm$ 0.07	0.28 $\pm$ 0.15	7.73 $\pm$ 1.59	0.91 $\pm$ 0.07	1.14 $\pm$ 0.01*

<b>Isolate + 1/8 MIC NB</b>	0.20±0.03*	0.98±0.47	0.14±0.10	0.33±0.11	8.09±0.48*	1.40±0.30	1.60±0.45
<b>Z 1.1</b>	<b><i>agrI</i>/<i>gyrB</i> fold change</b>	<b><i>spA</i>/<i>gyrB</i> fold change</b>	<b><i>atl</i>/<i>gyrB</i> fold change</b>	<b><i>clfA</i>/<i>gyrB</i> fold change</b>	<b><i>coa</i>/<i>gyrB</i> fold change</b>	<b><i>icaA</i>/<i>gyrB</i> fold change</b>	<b><i>icaD</i>/<i>gyrB</i> fold change</b>
<b>Only isolate</b>	1.00±0.00	1.00±0.00	1.00±0.00	1.00±0.00	1.00±0.00	1.00±0.00	1.00±0.00
<b>Isolate + 1/2 MIC CLI</b>	0.07±0.04*	0.19±0.08	0.57±0.01*	0.82±0.20	1.46±0.02*	0.64±0.61	1.19±0.09
<b>Isolate + 1/2 MIC NB</b>	0.14±0.03	2.01±0.54	0.23±0.05*	0.27±0.04*	2.71±0.16	0.98±0.22	0.94±0.05
<b>Isolate + 1/4 MIC NB</b>	0.13±0.09	1.10±0.19	0.18±0.06*	0.24±0.11	2.73±0.57	1.17±0.48	0.99±0.04
<b>Isolate + 1/8 MIC NB</b>	0.15±0.04	1.03±0.19	0.28±0.09	0.27±0.08	2.43±0.05*	1.52±0.19	1.99±0.02**

NB: nisin-biogel; CLI: clindamycin; MIC: minimum inhibitory concentration. *agrI*: accessory gene regulator I; *spA*: gene encoding staphylococcal protein A; *atl*: gene encoding autolysin; *clfA*: gene encoding clumping factor A; *coa*: gene encoding coagulase; *icaA*: gene encoding intracellular adhesin A; *icaD*: gene encoding intracellular adhesin D; *gyrB*: gene encoding gyrase B.

**Table S2** | Effects of nisin-biogel at 1/2 MIC, 1/4 MIC and 1/8 MIC and clindamycin at 1/2 MIC on biofilm formation by the isolates A 5.2, A 6.3, B 1.1, B 14.2, Z 1.1 and Z 5.2. Values are present as mean values  $\pm$  SD (three repeated different experiments). \*= $p<0.05$ ; \*\*= $p<0.01$ ; \*\*\*= $p<0.001$ , compared with the results of the corresponding control.

	Only isolate	Isolate + 1/2 MIC CLI	Isolate + 1/2 MIC NB	Isolate + 1/4 MIC NB	Isolate + 1/8 MIC NB
<b>A 5.2</b>	0.49 $\pm$ 0.08	0.49 $\pm$ 0.15	0.28 $\pm$ 0.04	0.34 $\pm$ 0.01	0.46 $\pm$ 0.10
<b>B 14.2</b>	0.21 $\pm$ 0.06	0.25 $\pm$ 0.03	0.37 $\pm$ 0.09	0.39 $\pm$ 0.11	0.54 $\pm$ 0.13
<b>Z 5.2</b>	0.25 $\pm$ 0.04	0.27 $\pm$ 0.05	0.21 $\pm$ 0.04	0.33 $\pm$ 0.05**	0.44 $\pm$ 0.16
<b>A 6.3</b>	0.36 $\pm$ 0.10	0.31 $\pm$ 0.03	0.40 $\pm$ 0.06	0.36 $\pm$ 0.13	0.44 $\pm$ 0.18
<b>B 1.1</b>	0.23 $\pm$ 0.02	0.24 $\pm$ 0.02	0.26 $\pm$ 0.12	0.38 $\pm$ 0.06	0.50 $\pm$ 0.17
<b>Z 1.1</b>	0.25 $\pm$ 0.02	0.37 $\pm$ 0.08	0.27 $\pm$ 0.04	0.30 $\pm$ 0.12	0.35 $\pm$ 0.11

NB: nisin-biogel; CLI: clindamycin; MIC: minimum inhibitory concentration.

**Table S3** | Effects of nisin-biogel at 1/2 MIC, 1/4 MIC and 1/8 MIC and clindamycin at 1/2 MIC on coagulase production by the isolates A 5.2, A 6.3, B 1.1, B 14.2, Z 1.1 and Z 5.2 after 4h of growth under the different conditions tested. Coagulation ability was measured every hour for 4h of incubation, and after 24h of incubation. -: no evidence of fibrin formation; 1+: small unorganized clots; 2+: small organized clots; 3+: large organized clots; 4+: entire content of tube coagulates and is not displaced when tube is inverted.

	Only isolate	Isolate + 1/2 MIC CLI	Isolate + 1/2 MIC NB	Isolate + 1/4 MIC NB	Isolate + 1/8 MIC NB
<b>A 5.2 E1</b>	1h --	1h --	1h --	1h - 1+	1h - 2+
	2h - 3+	2h --	2h - 2+	2h - 4+	2h - 4+
	3h - 3+	3h --	3h - 3+	3h - 4+	3h - 4+
	4h - 3+	4h --	4h - 3+	4h - 4+	4h - 4+
	24h - 4+	24h - 4+	24h - 3+	24h - 4+	24h - 4+
<b>A 5.2 E2</b>	1h --	1h --	1h --	1h --	1h --
	2h - 3+	2h --	2h --	2h - 3+	2h - 3+
	3h - 3+	3h --	3h - 2+	3h - 3+	3h - 3+
	4h - 4+	4h --	4h - 2+	4h - 3+	4h - 3+
	24h - 4+	24h - 4+	24h - 4+	24h - 4+	24h - 4+
<b>B 14.2 E1</b>	1h --	1h --	1h --	1h - 1+	1h - 2+
	2h - 1+	2h --	2h --	2h - 3+	2h - 3+
	3h - 3+	3h --	3h --	3h - 3+	3h - 3+
	4h - 4+	4h --	4h - 1+	4h - 3+	4h - 3+
	24h - 4+	24h - 4+	24h - 3+	24h - 4+	24h - 4+
<b>B 14.2 E2</b>	1h --	1h --	1h --	1h --	1h --
	2h - 2+	2h --	2h --	2h --	2h - 3+
	3h - 2+	3h --	3h --	3h --	3h - 3+
	4h - 2+	4h - 1+	4h --	4h - 2+	4h - 3+
	24h - 3+	24h - 4+	24h - 3+	24h - 3+	24h - 3+
<b>Z 5.2 E1</b>	1h - 2+	1h --	1h --	1h --	1h --
	2h - 4+	2h --	2h --	2h --	2h - 4+
	3h - 4+	3h --	3h --	3h --	3h - 4+
	4h - 4+	4h --	4h --	4h - 1+	4h - 4+
	24h - 4+	24h - 4+	24h - 4+	24h - 4+	24h - 4+
<b>Z 5.2 E2</b>	1h - 2+	1h --	1h --	1h --	1h --
	2h - 3+	2h --	2h --	2h --	2h - 3+
	3h - 3+	3h --	3h --	3h --	3h - 3+
	4h - 3+	4h --	4h --	4h --	4h - 3+
	24h - 3+	24h - 3+	24h - 3+	24h - 3+	24h - 3+
<b>A 6.3 E1</b>	1h --	1h --	1h --	1h --	1h - 1+
	2h --	2h --	2h --	2h - 2+	2h - 4+
	3h - 4+	3h --	3h --	3h - 3+	3h - 4+
	4h - 4+	4h --	4h - 2+	4h - 3+	4h - 4+
	24h - 4+	24h - 4+	24h - 4+	24h - 4+	24h - 4+
<b>A 6.3 E2</b>	1h --	1h --	1h --	1h --	1h --
	2h - 1+	2h --	2h --	2h --	2h - 1+
	3h - 3+	3h --	3h --	3h - 1+	3h - 3+
	4h - 3+	4h --	4h --	4h - 2+	4h - 3+
	24h - 4+	24h - 4+	24h - 3+	24h - 4+	24h - 4+
<b>B 1.1 E1</b>	1h - 2+	1h --	1h - 2+	1h - 3+	1h - 3+
	2h - 3+	2h --	2h - 3+	2h - 3+	2h - 3+
	3h - 3+	3h --	3h - 3+	3h - 3+	3h - 3+
	4h - 3+	4h --	4h - 3+	4h - 3+	4h - 3+
	24h - 4+	24h - 4+	24h - 4+	24h - 4+	24h - 4+
<b>B 1.1 E2</b>	1h --	1h --	1h --	1h --	1h - 1+
	2h - 3+	2h --	2h --	2h - 3+	2h - 3+
	3h - 4+	3h --	3h --	3h - 3+	3h - 3+
	4h - 4+	4h --	4h - 1+	4h - 3+	4h - 3+
	24h - 4+	24h - 4+	24h - 4+	24h - 4+	24h - 4+

<b>Z 1.1 E1</b>	1h – 3+	1h – –	1h – 2+	1h – 3+	1h – 3+
	2h – 3+	2h – –	2h – 3+	2h – 3+	2h – 3+
	3h – 3+	3h – –	3h – 3+	3h – 3+	3h – 3+
	4h – 3+	4h – –	4h – 3+	4h – 3+	4h – 3+
	24h – 4+	24h – 4+	24h – 4+	24h – 4+	24h – 4+
<b>Z 1.1 E2</b>	1h – 3+	1h – –	1h – –	1h – 1+	1h – 3+
	2h – 3+	2h – –	2h – –	2h – 3+	2h – 3+
	3h – 3+	3h – –	3h – –	3h – 3+	3h – 3+
	4h – 3+	4h – –	4h – 1+	4h – 3+	4h – 3+
	24h – 4+	24h – 4+	24h – 4+	24h – 4+	24h – 4+

NB: nisin-biogel; CLI: clindamycin; MIC: minimum inhibitory concentration.

**Table S4** | Effects of nisin-biogel at 1/2 MIC, 1/4 MIC and 1/8 MIC and clindamycin at 1/2 MIC on coagulase production by the isolates A 5.2, A 6.3, B 1.1, B 14.2, Z 1.1 and Z 5.2 after 24h of growth under the different conditions tested. Coagulation ability was measured every hour for 4h of incubation, and after 24h of incubation. -: no evidence of fibrin formation; 1+: small unorganized clots; 2+: small organized clots; 3+: large organized clots; 4+: entire content of tube coagulates and is not displaced when tube is inverted.

	Only isolate	Isolate + 1/2 MIC CLI	Isolate + 1/2 MIC NB	Isolate + 1/4 MIC NB	Isolate + 1/8 MIC NB
<b>A 5.2 E1</b>	1h – 4+	1h – -	1h – 2+	1h – 4+	1h – 4+
	2h – 4+	2h – -	2h – 2+	2h – 4+	2h – 4+
	3h – 4+	3h – -	3h – 3+	3h – 4+	3h – 4+
	4h – 4+	4h – -	4h – 3+	4h – 4+	4h – 4+
	24h – 4+	24h – -	24h – 3+	24h – 4+	24h – 4+
<b>A 5.2 E2</b>	1h – 2+	1h – -	1h – 2+	1h – 3+	1h – 2+
	2h – 3+	2h – -	2h – 3+	2h – 3+	2h – 3+
	3h – 3+	3h – -	3h – 3+	3h – 3+	3h – 3+
	4h – 3+	4h – -	4h – 3+	4h – 3+	4h – 3+
	24h – 3+	24h – -	24h – 3+	24h – 3+	24h – 3+
<b>B 14.2 E1</b>	1h – 4+	1h – 4+	1h – 2+	1h – 4+	1h – 4+
	2h – 4+	2h – 4+	2h – 3+	2h – 4+	2h – 4+
	3h – 4+	3h – 4+	3h – 3+	3h – 4+	3h – 4+
	4h – 4+	4h – 4+	4h – 3+	4h – 4+	4h – 4+
	24h – 4+	24h – 4+	24h – 3+	24h – 4+	24h – 4+
<b>B 14.2 E2</b>	1h – 2+	1h – 3+	1h – 2+	1h – 2+	1h – 2+
	2h – 3+	2h – 3+	2h – 3+	2h – 3+	2h – 3+
	3h – 3+	3h – 3+	3h – 3+	3h – 3+	3h – 3+
	4h – 3+	4h – 3+	4h – 3+	4h – 3+	4h – 3+
	24h – 3+	24h – 3+	24h – 3+	24h – 3+	24h – 3+
<b>Z 5.2 E1</b>	1h – 4+	1h – -	1h – 4+	1h – 4+	1h – 3+
	2h – 4+	2h – -	2h – 4+	2h – 4+	2h – 3+
	3h – 4+	3h – -	3h – 4+	3h – 4+	3h – 3+
	4h – 4+	4h – -	4h – 4+	4h – 4+	4h – 3+
	24h – 4+	24h – -	24h – 2+	24h – 3+	24h – 3+
<b>Z 5.2 E2</b>	1h – 2+	1h – -	1h – 2+	1h – 2+	1h – 2+
	2h – 3+	2h – -	2h – 3+	2h – 3+	2h – 3+
	3h – 3+	3h – -	3h – 3+	3h – 3+	3h – 3+
	4h – 3+	4h – -	4h – 3+	4h – 3+	4h – 3+
	24h – 3+	24h – -	24h – 3+	24h – 3+	24h – 3+
<b>A 6.3 E1</b>	1h – 2+	1h – -	1h – 2+	1h – 2+	1h – 2+
	2h – 3+	2h – -	2h – 3+	2h – 3+	2h – 3+
	3h – 3+	3h – -	3h – 3+	3h – 3+	3h – 3+
	4h – 3+	4h – -	4h – 3+	4h – 3+	4h – 3+
	24h – 4+	24h – -	24h – 4+	24h – 4+	24h – 3+
<b>A 6.3 E2</b>	1h – 3+	1h – -	1h – 3+	1h – 3+	1h – 3+
	2h – 3+	2h – -	2h – 3+	2h – 3+	2h – 3+
	3h – 3+	3h – -	3h – 3+	3h – 3+	3h – 3+
	4h – 3+	4h – -	4h – 3+	4h – 3+	4h – 3+
	24h – 4+	24h – -	24h – 4+	24h – 4+	24h – 4+
<b>B 1.1 E1</b>	1h – 2+	1h – 2+	1h – 4+	1h – 2+	1h – 2+
	2h – 3+	2h – 4+	2h – 4+	2h – 3+	2h – 3+
	3h – 3+	3h – 4+	3h – 4+	3h – 3+	3h – 3+
	4h – 3+	4h – 4+	4h – 4+	4h – 3+	4h – 3+
	24h – 3+	24h – 4+	24h – 4+	24h – 3+	24h – 3+
<b>B 1.1 E2</b>	1h – 3+	1h – 3+	1h – 3+	1h – 3+	1h – 3+
	2h – 3+	2h – 3+	2h – 3+	2h – 3+	2h – 3+
	3h – 3+	3h – 3+	3h – 3+	3h – 3+	3h – 3+
	4h – 3+	4h – 3+	4h – 3+	4h – 3+	4h – 3+
	24h – 4+	24h – 4+	24h – 4+	24h – 4+	24h – 4+
<b>Z 1.1 E1</b>	1h – 2+	1h – -	1h – 3+	1h – 4+	1h – 4+
	2h – 3+	2h – 3+	2h – 4+	2h – 4+	2h – 4+
	3h – 3+	3h – 3+	3h – 4+	3h – 4+	3h – 4+
	4h – 3+	4h – 3+	4h – 4+	4h – 4+	4h – 4+

	24h – 3+	24h – 3+	24h – 4+	24h – 4+	24h – 4+
<b>Z 1.1 E2</b>	1h – 3+	1h – 3+	1h – 3+	1h – 3+	1h – 3+
	2h – 3+	2h – 3+	2h – 3+	2h – 3+	2h – 3+
	3h – 3+	3h – 3+	3h – 3+	3h – 3+	3h – 3+
	4h – 3+	4h – 3+	4h – 3+	4h – 3+	4h – 3+
	24h – 3+	24h – 4+	24h – 3+	24h – 3+	24h – 3+

NB: nisin-biogel; CLI: clindamycin; MIC: minimum inhibitory concentration.

**Table S5** | Effects of nisin-biogel at 1/2 MIC, 1/4 MIC and 1/8 MIC and clindamycin at 1/2 MIC on protein A release by *S. aureus* DFI isolates A 5.2, A 6.3, B 1.1, B 14.2, Z 1.1 and Z 5.2 after 18h of growth under the different conditions tested. The results are the ratios of the amount of SpA (pg/mL) in the bacterial supernatants incubated with nisin-biogel or clindamycin to the amount of SpA (pg/mL) in the bacterial supernatants incubated without antimicrobials and are expressed as percentages.

	A 5.2	A 6.3	B 1.1	B 14.2	Z 1.1	Z 5.2
<b>No antimicrobial</b>	100%	100%	100%	100%	100%	100%
<b>1/2 MIC CLI</b>	49%	150%	55%	79%	42%	113%
<b>1/2 MIC NB</b>	74%	95%	61%	46%	56%	109%
<b>1/4 MIC NB</b>	77%	98%	111%	69%	68%	96%
<b>1/8 MIC NB</b>	105%	91%	130%	66%	62%	86%

NB: nisin-biogel; CLI: clindamycin



**Table S6** | Primers used in RT-qPCR protocols using 7300 Real Time PCR System for accessing virulence gene expression.

Primer	Sequence (5'-3')	Reference
<i>gyrB</i> F	GGTGGCGACTTTGATCTAGC	Otto et al., 2013 [41]
<i>gyrB</i> R	TTATACAACGGTGGCTGTGC	Otto et al., 2013 [41]
<i>agrI</i> F	CCAGCTATAATTAGTGGTATTAAGTACAGTAAACT	Francois et al., 2006 [50]
<i>agrI</i> R	AGGACGCGCTATCAAACATTTT	Francois et al., 2006 [50]
<i>spA</i> F	TATGCCTAACTTAAATGCTG	Otto et al., 2013 [41]
<i>spA</i> R	TTGGAGCTTGAGAGTCATTA	Otto et al., 2013 [41]
<i>atl</i> F	ACCAAGATCAGTTGCTGCAA	This study
<i>atl</i> R	CGGTATGCGTATTTAGGGAAGT	This study
<i>clfA</i> F	ACCCAGGTTCAAGATTCTGGCAGCG	Atshan et al., 2013 [51]
<i>clfA</i> R	TCGCTGAGTCGGAATCGCTTGCT	Atshan et al., 2013 [51]
<i>coa</i> F	GTAGATTGGGCAATTACATTTTGGAGG	Kearns et al., 1999 [52]
<i>coa</i> R	CGCATCAGCTTTGTTATCCCATGT	Kearns et al., 1999 [52]
<i>icaA</i> F	GAGGTAAAGCCAACGCACTC	Atshan et al., 2013 [51]
<i>icaA</i> R	CCTGTTAACCGCACCAAGTTT	Atshan et al., 2013 [51]
<i>icaD</i> F	ACCCAACGCTAAAATCATCG	Atshan et al., 2013 [51]
<i>icaD</i> R	GCGAAAATGCCCATAGTTTC	Atshan et al., 2013 [51]

*gyrB*: gene encoding gyrase B; *agrI*: accessory gene regulator I; *spA*: gene encoding protein A; *atl*: gene encoding autolysin; *clfA*: gene encoding clumping factor A; *coa*: gene encoding coagulase; *icaA*: gene encoding intracellular adhesin A; *icaD*: gene encoding intracellular adhesin D.