

Table S1. *Staphylococcus* spp. tested for chromosomal and plasmid *blaZ*, *femA* and *mecA* genes and oxacillin and penicillin G resistance profile

Sample number	Species	Chromosomal			Plasmid			Resistance	
		<i>blaZ</i>	<i>femA</i>	<i>mecA</i>	<i>blaZ</i>	<i>femA</i>	<i>mecA</i>	Oxacillin	Penicillin G
1.1	<i>Staphylococcus haemolyticus</i>	-	-	-	-	-	-	Negative	Negative
1.2	<i>Staphylococcus intermedius</i>	Negative	-	-	Negative	Negative	Negative	Negative	Positive
1.3	<i>Staphylococcus haemolyticus</i>	Negative	-	Positive	-	Positive	Negative	Positive	Negative
1.4	<i>Staphylococcus haemolyticus</i>	Negative	Negative	-	Negative	Positive	Negative	Negative	Positive
1.5	<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	Negative	Negative	Negative	Negative	Negative	Positive	Negative	Positive
1.6	<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	-	-	-	-	-	-	Negative	Negative
1.7	<i>Staphylococcus haemolyticus</i>	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive
1.8	<i>Staphylococcus haemolyticus</i>	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Positive
1.9	<i>Staphylococcus carnosus</i> subsp. <i>carnosus</i>	Negative	Negative	-	Negative	Negative	Negative	Positive	Negative
1.10	<i>Staphylococcus haemolyticus</i>	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Negative
1.11	<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	Negative	Negative	Negative	-	Positive	Positive	Negative	Positive
1.12	<i>Staphylococcus carnosus</i> subsp. <i>carnosus</i>	Negative	Positive	Negative	Positive	Positive	Positive	Negative	Negative
2.1	<i>Staphylococcus intermedius</i>	Negative	Positive	Negative	Negative	Positive	Negative	Negative	Negative
2.2	<i>Staphylococcus haemolyticus</i>	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Positive
2.3	<i>Staphylococcus haemolyticus</i>	Negative	-	Negative	Negative	Negative	Negative	Positive	Negative
2.4	<i>Staphylococcus haemolyticus</i>	Negative	Negative	Negative	-	Negative	Negative	Positive	Negative
2.5	<i>Staphylococcus haemolyticus</i>	Negative	-	Negative	Negative	Negative	-	Positive	Positive
2.6	<i>Staphylococcus haemolyticus</i>	Negative	-	Negative	Negative	Negative	Negative	Positive	Negative
2.7	<i>Staphylococcus haemolyticus</i>	-	Positive	Negative	Negative	Positive	Negative	Positive	Negative
2.8	<i>Staphylococcus haemolyticus</i>	Negative	-	Negative	-	Positive	Negative	Positive	Positive
2.9	<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Positive
3.1	<i>Staphylococcus haemolyticus</i>	-	-	-	-	-	-	Negative	Positive
3.2	<i>Staphylococcus haemolyticus</i>	-	-	-	-	-	-	Positive	Positive
3.3	<i>Staphylococcus agnetis</i>	Negative	-	Negative	Positive	-	Positive	Positive	Positive
3.4	<i>Staphylococcus haemolyticus</i>	Negative	Negative	Negative	Negative	-	-	Positive	Positive
3.5	<i>Staphylococcus carnosus</i> subsp. <i>utilis</i>	Negative	-	Negative	Positive	Positive	Negative	Positive	Positive
3.6	<i>Staphylococcus carnosus</i> subsp. <i>utilis</i>	-	-	Negative	Negative	Negative	Negative	Positive	Negative
3.7	<i>Staphylococcus haemolyticus</i>	-	Negative	Negative	-	-	Negative	Positive	Positive
3.8	<i>Staphylococcus auricularis</i>	-	-	-	-	-	-	Positive	Positive
4.1	<i>Staphylococcus haemolyticus</i>	-	-	-	-	-	-	Positive	Positive
4.2	<i>Staphylococcus agnetis</i>	Negative	-	Negative	-	-	-	Positive	Positive
4.3	<i>Staphylococcus haemolyticus</i>	-	-	-	-	-	-	Positive	Positive
4.4	<i>Staphylococcus auricularis</i>	-	-	Negative	-	-	-	Positive	Positive
4.5	<i>Staphylococcus auricularis</i>	-	-	-	-	-	-	Positive	Positive
4.6	<i>Staphylococcus epidermidis</i>	-	Positive	-	Negative	-	-	Positive	Positive
5.1	<i>Staphylococcus carnosus</i> subsp. <i>utilis</i>	-	-	-	-	-	-	Positive	Positive
5.2	<i>Staphylococcus carnosus</i> subsp. <i>utilis</i>	Negative	Positive	Negative	Negative	Positive	Positive	Positive	Positive
5.3	<i>Staphylococcus haemolyticus</i>	-	Positive	-	-	-	-	Positive	Positive
5.4	<i>Staphylococcus auricularis</i>	-	-	Negative	-	-	-	Negative	Negative

5.7	<i>Staphylococcus agnetis</i>	-	Negative	-	-	-	-	Positive	Positive
5.8	<i>Staphylococcus auricularis</i>	Negative	Positive	Negative	Negative	-	Negative	Positive	Positive
6.1	<i>Staphylococcus pasteurii</i>	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Positive
6.2	<i>Staphylococcus intermedius</i>	Negative	Positive	Negative	Negative	Positive	Negative	Positive	Positive
6.3	<i>Staphylococcus intermedius</i>	Negative	Positive	Negative	Negative	Negative	Negative	Positive	Positive
6.4	<i>Staphylococcus intermedius</i>	Negative	Positive	-	Negative	Negative	Positive	Positive	Negative
6.5	<i>Staphylococcus intermedius</i>	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Negative
8.1	<i>Staphylococcus auricularis</i>	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive
8.2	<i>Staphylococcus intermedius</i>	Negative	Positive	Negative	Positive	Positive	Negative	Positive	Positive

Legend: - represent untested samples for a given gen

Table S2. Logistic regression to verify the association between the presence of the gene and resistance to penicillin G and oxacillin.

		Penicillin G - Resistant			Oxacillin - Resistant		
		OR	IC-95%	p-value	OR	IC-95%	p-value
All species	blaZ-c	*	*	*	*	*	*
	femA-c	0.78	(0.09; 6.79)	0.51	1.53	(0.25; 9.55)	0.55
	mecA-c	438676.90	(0.0; 1.17)	0.96	117878.60	(0.0; 3.13)	0.74
	blaZ-p	2.00	(0.07; 54.72)	0.52	0.97	(0.07; 12.47)	0.94
	femA-p	265873.42	(0.0; 2.30)	0.45	0.97	(0.12; 7.11)	0.61
	mecA-p	6.47	(0.07; 641.61)	0.73	0.48	(0.06; 3.71)	0.71
<i>S. aureus</i>	femA-p	1.00	(0.0; 3.15)	0.99	0.00	(0.0; 9.28)	1.00
subsp. <i>aureus</i>	mecA-p	1.00	(0.0; 3.51)	0.99	0.00	(0.0; 2.34)	0.99
<i>S. auricularis</i>	femA-c	1.00	(0.0; 1.28)	1.00	1.00	(0.0; 1.28)	1.00
	blaZ-p	1.00	(0.0; 1.28)	0.87	1.00	(0.0; 1.28)	1.00
<i>S. carnosus</i>	femA-c	*	*	*	0.00	(0.0; 4.32)	0.90
	blaZ-p	286663.11	(0.0; 7.63)	1.00	0.00	(0.0; 4.32)	0.90
	femA-p	1.50	(0.0; 5.30)	1.00	0.00	(0.0; 4.32)	0.90
	mecA-p	*	*	*	0.00	(0.0; 4.32)	0.90
<i>S. haemolyticus</i>	femA-c	0.96	(0.0; 2.61)	0.96	2.88	(0.09; 88.34)	0.61
	mecA-c	0.00	(0.0; 5.24)	0.99	59848.83	(0.0; 1.60)	1.00
	blaZ-p	0.00	(0.0; 1.84)	0.97	*	*	*
	femA-p	5.00	(0.0; 4.68)	0.94	0.82	(0.03; 19.75)	0.99
<i>S. intermedius</i>	blaZ-p	105456.47	(0.0; 4.86)	0.95	286663.12	(0.0; 7.63)	0.97
	femA-p	1.00	(0.02; 50.40)	1.00	1.00	(0.2; 50.40)	1.00
	mecA-p	*	*	*	286663.12	(0.0; 7.63)	0.97

*did not have enough data to calculate such estimates.

-c (chromosomal DNA)

-p (plasmid DNA)

Table S3. χ^2 test for association between the presence of genes and resistance to penicillin G and oxacillin.

	Gene	X ²	p-value
Oxacillin	femA-c	1854.00	0.396
	blaZ-p	0.19	0.909
	femA-p	0.70	0.705
	mecA-p	0.89	0.642
Penicillin G	femA-c	0.58	0.75
	blaZ-p	0.64	0.725
	femA-p	3.59	0.166
	mecA-p	2.37	0.306

-c (chromosomal DNA)

-p (plasmid DNA)