



Supplementary Materials

Table S1. Prevalence of MRSA among different sources.

head	No. of samples		<i>p</i> -value
	MRSA Positive	MRSA Negative	
Slaughterhouse in 2017	4	98	0.352
Slaughterhouse in 2018	7	95	
Market in 2017	28	29	0.361
Market in 2018	24	35	
Total 2017	32	127	0.845
Total 2018	31	130	
Slaughterhouse	11	193	<0.001*
Market	52	64	
Market D	1	12	0.035*
Market E	36	39	
Market F	7	5	
Market G	8	8	
Slaughterhouse A	8	60	0.008*
Slaughterhouse B	3	65	
Slaughterhouse C	0	68	

* The *p*-value less than 0.05 was considered statistically significant.

Table S2. Antimicrobial resistance patterns of MRSA isolates from pig and pork.

Antimicrobial resistance pattern.												Total of isolat es	Sources (No. of isolates)		Genotype (No. of isolates)				
AMP	OXA	FOX	CHL	CLI	ERY	CIP	ENR	GEN	TET	SXT	VAN		Slaughterho use	Market	ST9 -SCCmec IX	ST398 -SCCmec V	ST9 -SCCmec NT	ST779 -SCCmec IV	ST5639 -SCCmec IX
												5	B (2)	E (3)	5	-	-	-	-
												3	A (1)	E (2)	3	-	-	-	-
												8	A (3)	E (5)	8	-	-	-	-
												2	0	E (2)	2	-	-	-	-
												2	0	E (2)	2	-	-	-	-
												3	0	E (3)	3	-	-	-	-
												1	0	E (1)	1	-	-	-	-
												1	0	E (1)	-	-	1	-	-
												1	0	E (1)	-	-	1	-	-
												3	0	E (1), G (2)	3	-	-	-	-
												1	A (1)	0	1	-	-	-	-
												7	B (1)	E (3), G (3)	6	-	-	-	1
												1	0	F (1)	1	-	-	-	-
												1	0	D (1)	1	-	-	-	-
												2	0	G (1), E (1)	2	-	-	-	-
												1	0	F (1)	1	-	-	-	-
												1	0	E (1)	-	1	-	-	-
												2	A (1)	F (1)	2	-	-	-	-
												1	0	G (1)	1	-	-	-	-
												1	0	G (1)	1	-	-	-	-
												1	0	F (1)	1	-	-	-	-
												1	A (1)	0	1	-	-	-	-
												1	A (1)	0	-	1	-	-	-
												3	0	E (2), F (1)	-	3	-	-	-
												1	0	E (1)	-	1	-	-	-
												1	0	F (1)	-	1	-	-	-
												1	0	F (1)	-	1	-	-	-

	3	0	E (2), F (1)	-	3	-	-	-
	7	0	E (6), F (1)	-	7	-	-	-
	1	0	E (1)	-	-	-	1	-
Total	67	11	56	45	18	2	1	1

Abbreviation: AMP, ampicillin; OXA, oxacillin; FOX, ceftioxin; CHL, chloramphenicol; CLI, clindamycin; ERY, erythromycin; CIP, ciprofloxacin; ENR, enrofloxacin; GEN, gentamicin; TE, tetracycline; SXY, sulfamethoxazole/trimethoprim; VAN, vancomycin

Red, resistant; Yellow, intermediate; Green, susceptible; NT, nontypeable; ST5639; novel ST found from Market E in 2018

Table S3. Prevalence of antimicrobial resistance of MRSA isolated in slaughterhouse and market located in Pathumthani province, Thailand in 2017 and 2018.

Class/ Antimicrobial agents	No. (%) of antimicrobial resistance of MRSA isolates						Total (<i>n</i> = 67)
	Slaughterhouse (<i>n</i> = 30)			Market (<i>n</i> = 102)			
	2017 (<i>n</i> = 4)	2018 (<i>n</i> = 7)	Total (<i>n</i> = 11)	2017 (<i>n</i> = 30)	2018 (<i>n</i> = 26)	Total (<i>n</i> = 56)	
Penicillin							
AMP	4 (100)	7 (100)	11 (100)	30 (100)	26 (100)	56 (100)	67 (100)
OXA	4 (100)	7 (100)	11 (100)	30 (100)	25 (96.2)	55 (98.2)	66 (98.5)
Cephem							
FOX	4 (100)	7 (100)	11 (100)	30 (100)	26 (100)	56 (100)	67 (100)
Phenicol							
CHL	3 (75.0)	5 (71.4)	8 (72.7)	15 (50.0)	19 (73.1)	34 (60.7)	42 (62.7)
Lincosamide							
CLI	3 (75.0)	7 (100)	10 (90.9)	27 (90.0)	23 (88.5)	50 (89.3)	60 (89.6)
Macrolide							
ERY	3 (75.0)	3 (42.9)	6 (54.5)	10 (33.3)	9 (34.6)	19 (33.9)	25 (37.3)
Fluoroquinolone							
CIP	4 (100)	7 (100)	11 (100)	16 (53.3)	23 (88.5)	39 (69.6)	50 (74.6)
ENR	4 (100)	6 (85.7)	10 (90.0)	16 (53.3)	23 (88.5)	39 (69.6)	49 (73.1)
Aminoglycoside							
GEN	4 (100)	6 (85.7)	10 (90.9)	10 (33.3)	23 (88.5)	33 (58.9)	43 (64.2)
Tetracycline							
TE	4 (100)	7 (100)	11 (100)	30 (100)	25 (96.2)	55 (98.2)	66 (98.5)
Folate partway -intibitor							
SXT	2 (50.0)	0	2 (18.2)	6 (20.0)	8 (30.8)	14 (25.0)	16 (23.9)
Glycopeptide							
VAN	0	0	0	0	0	0	0

Abbreviation: AMP, ampicillin; OXA, oxacillin; FOX, cefoxitin; CHL, chloramphenicol; CLI, clindamycin; ERY, erythromycin; CIP, ciprofloxacin; ENR, enrofloxacin; GEN, gentamicin; TE, tetracycline; SXY, sulfamethoxazole/trimethoprim; VAN, vancomycin.

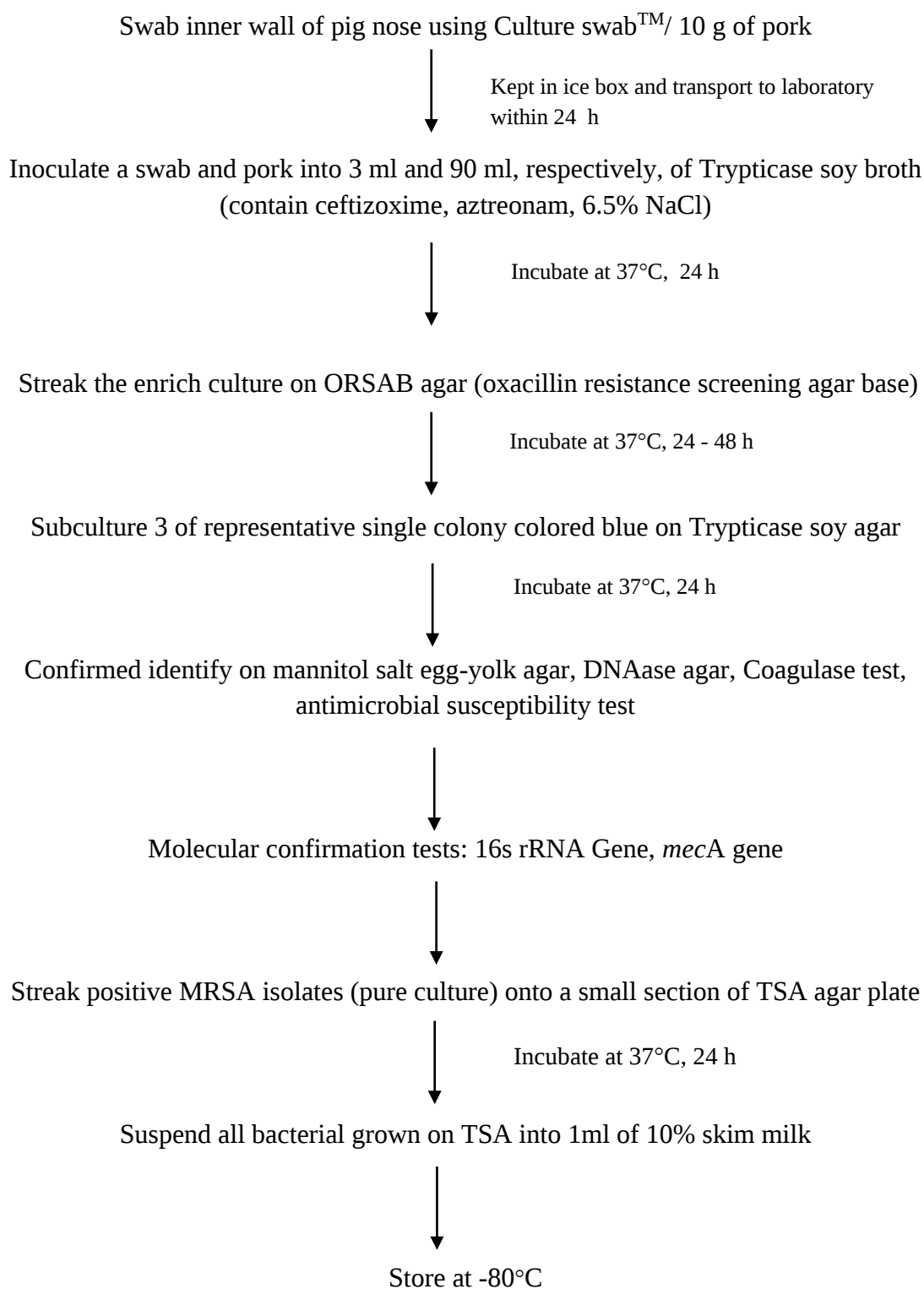


Figure S1. Isolation and Identification for methicillin-resistance *Staphylococcus aureus* (MRSA).