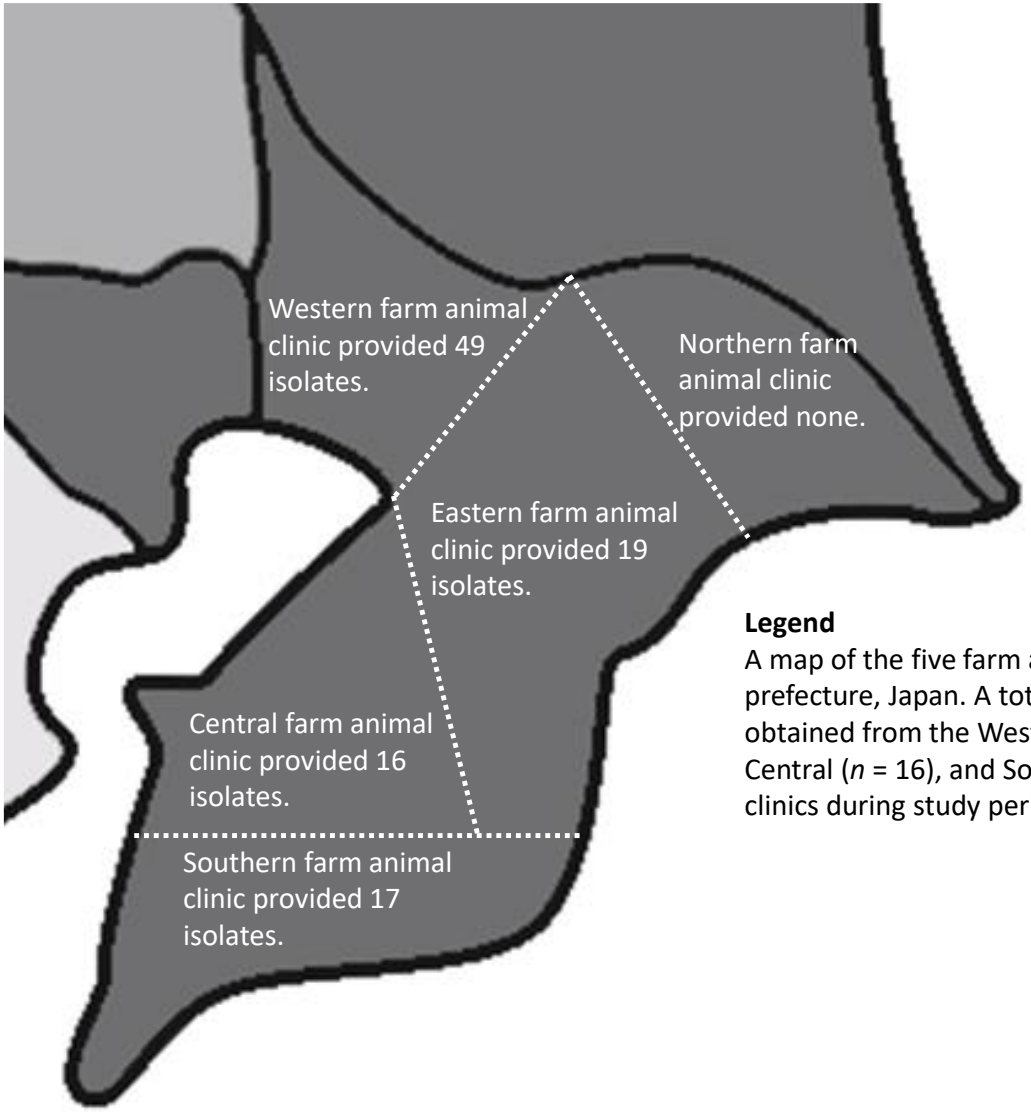
Supplementary Fig. 1



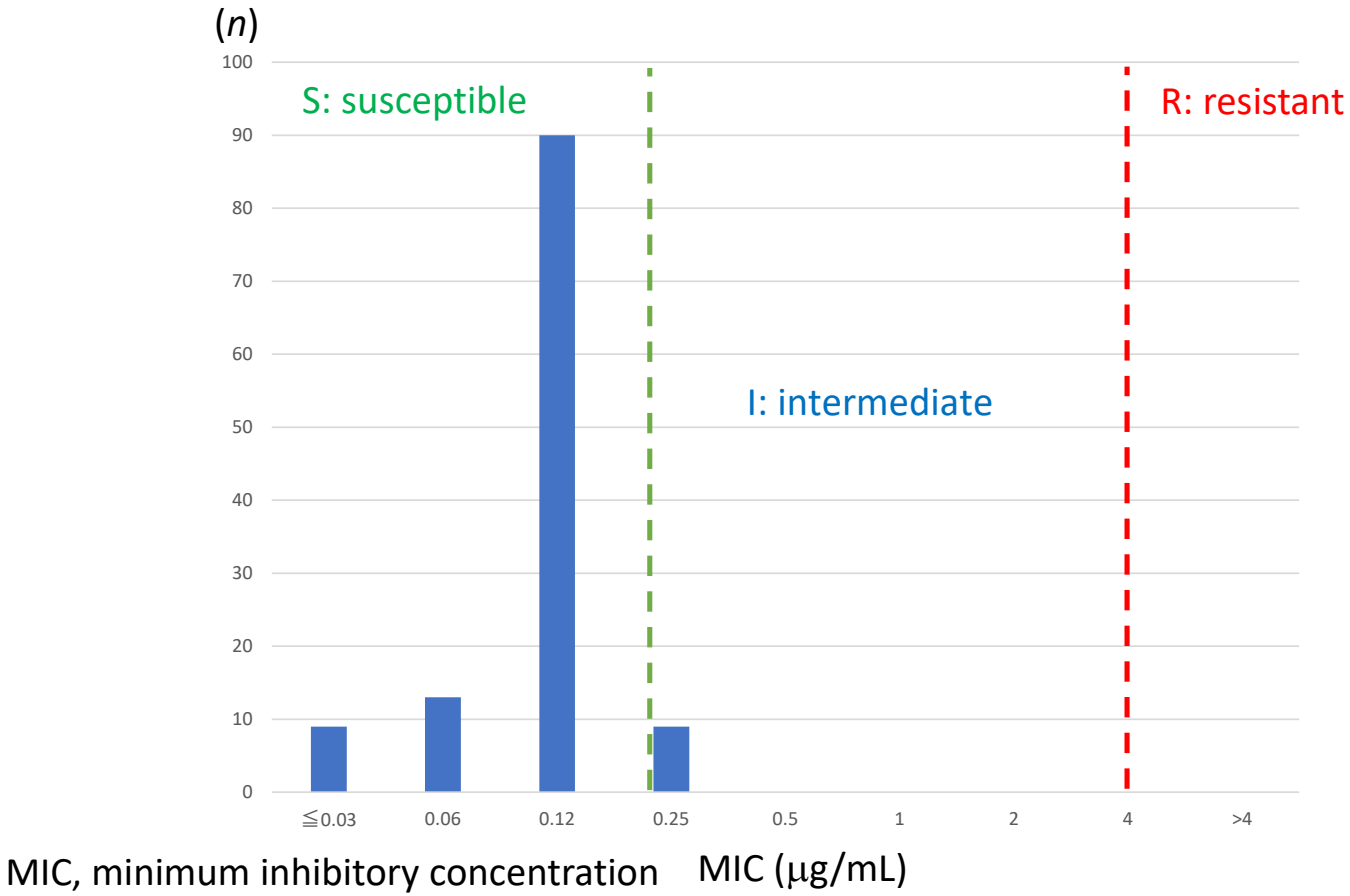
Legend

A map of the five farm animal clinics located in Chiba prefecture, Japan. A total of 101 *S. uberis* isolates were obtained from the Western (*n* = 49), Eastern (*n* = 19), Central (*n* = 16), and Southern (*n* = 17) farm animal clinics during study period of March to October, 2022.

253

Supplementary Fig. 2

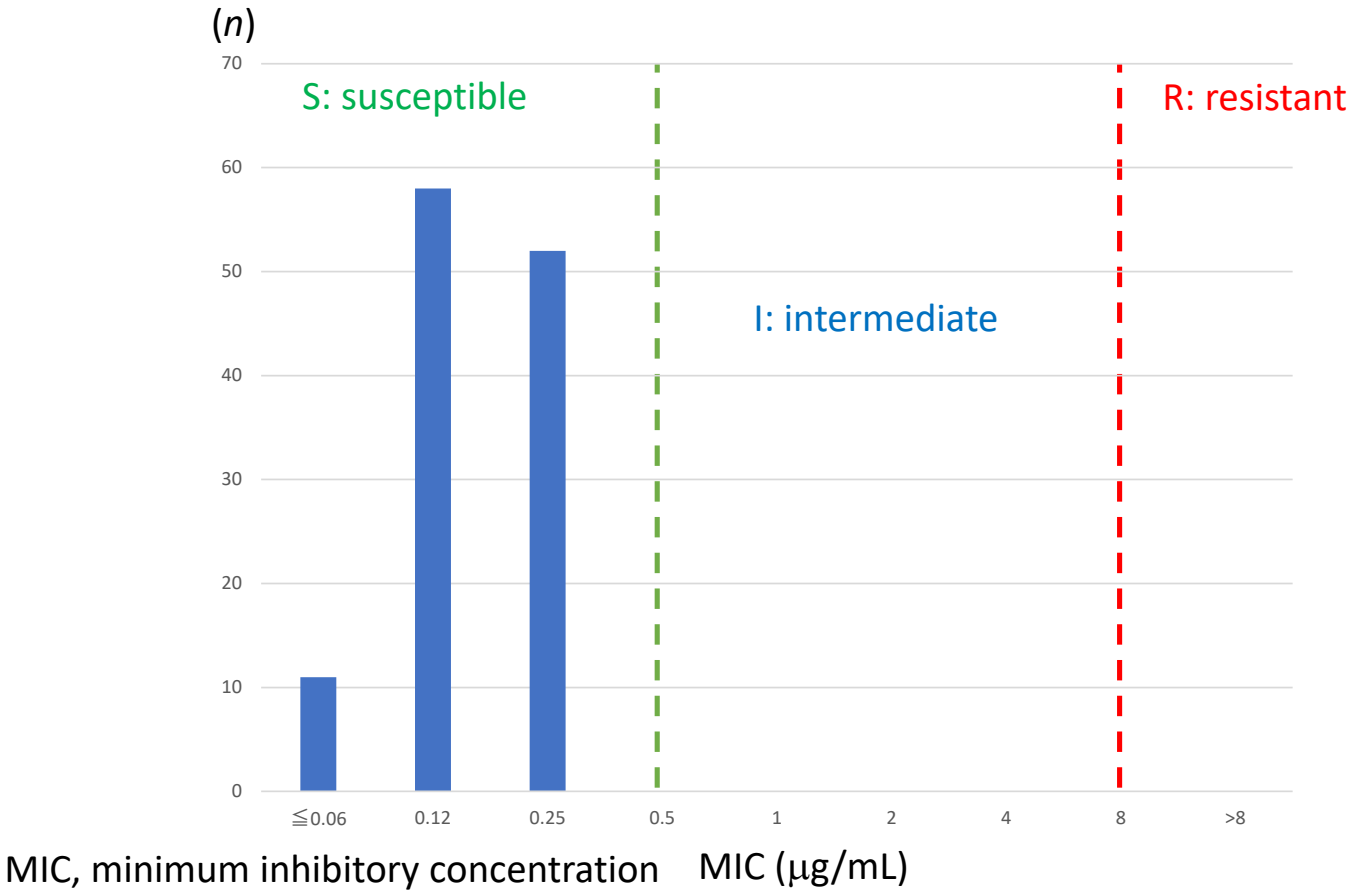
Penicillin G MIC distribution



MIC, minimum inhibitory concentration

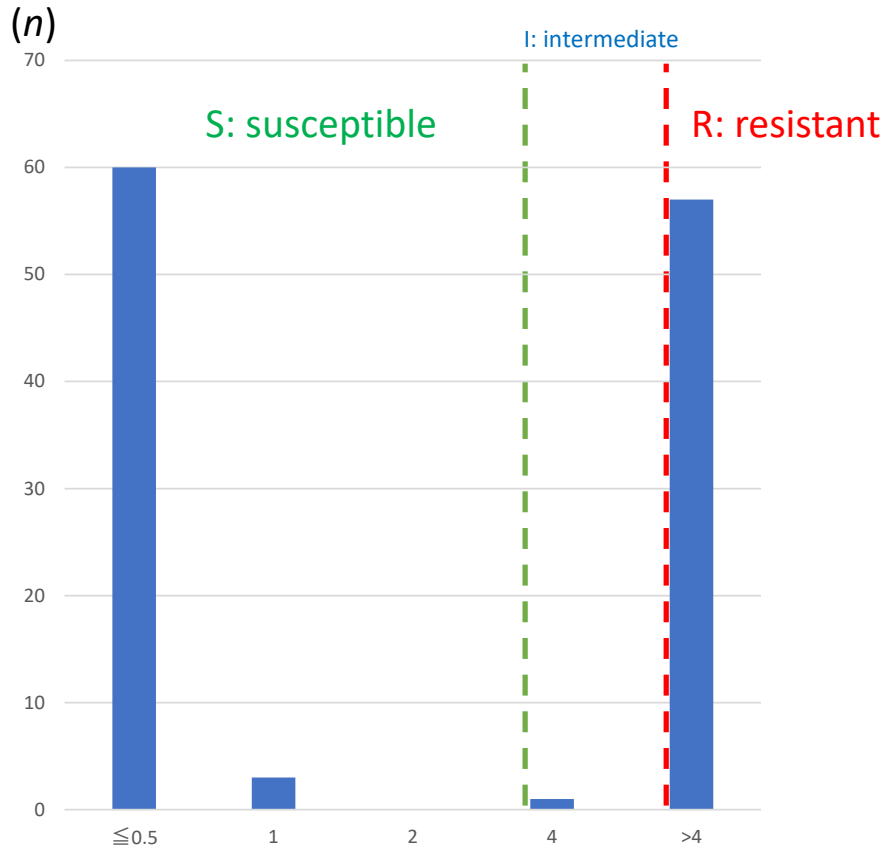
Supplementary Fig. 2

Ampicillin MIC distribution



Supplementary Fig. 2

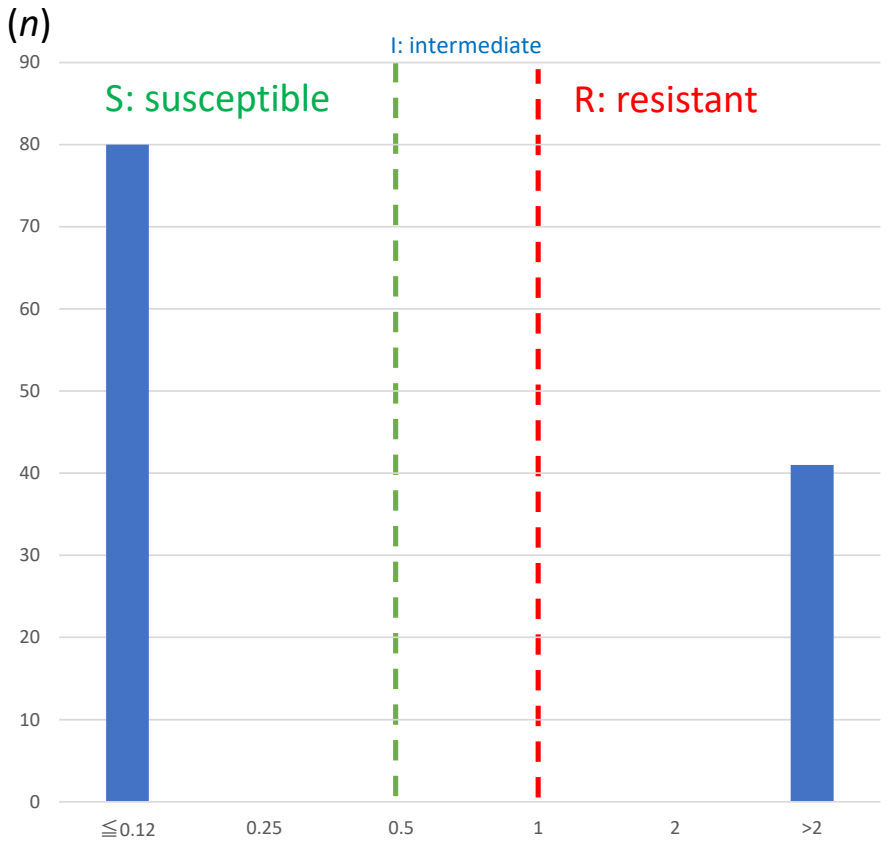
Minocycline MIC distribution



MIC, minimum inhibitory concentration MIC (μg/mL)

Supplementary Fig. 2

Erythromycin MIC distribution



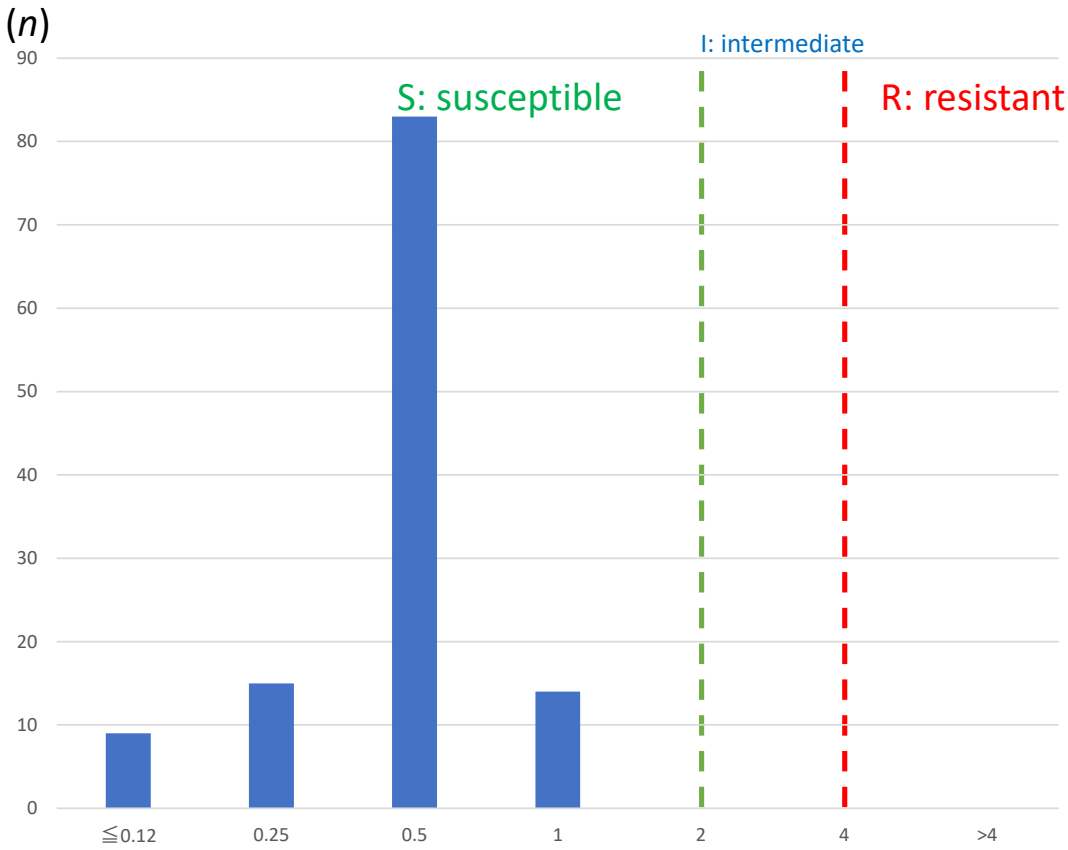
MIC, minimum inhibitory concentration MIC (μg/mL)

Supplementary Fig. 2

Chloramphenicol MIC distribution

Supplementary Fig. 2

Cefotaxime MIC distribution



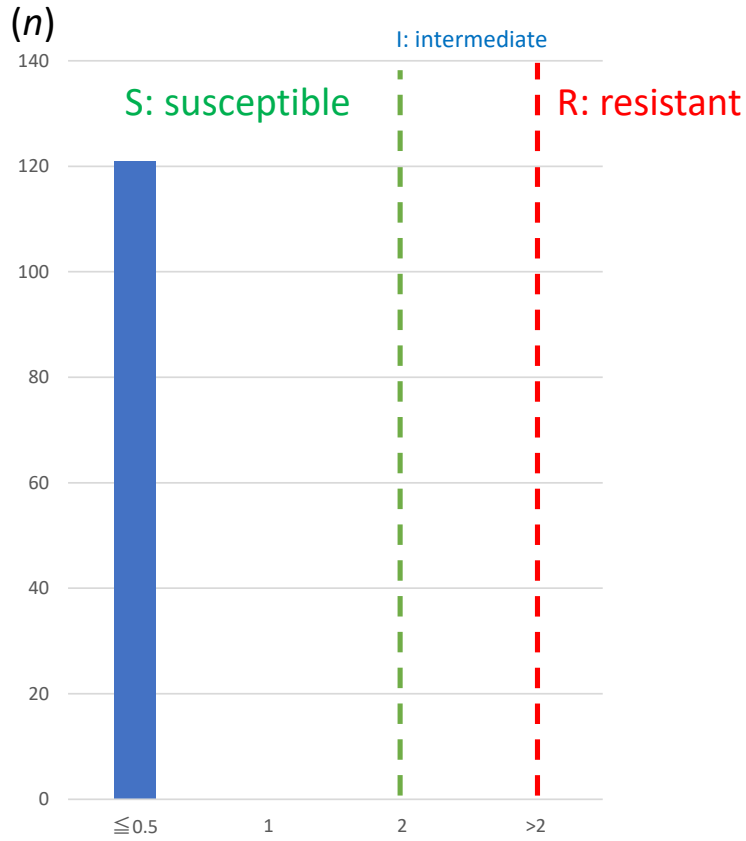
Supplementary Fig. 2

Cefozopran MIC distribution

MIC, minimum inhibitory concentration MIC (μg/mL)

Supplementary Fig. 2

Cefepime MIC distribution



MIC, minimum inhibitory concentration MIC (μg/mL)

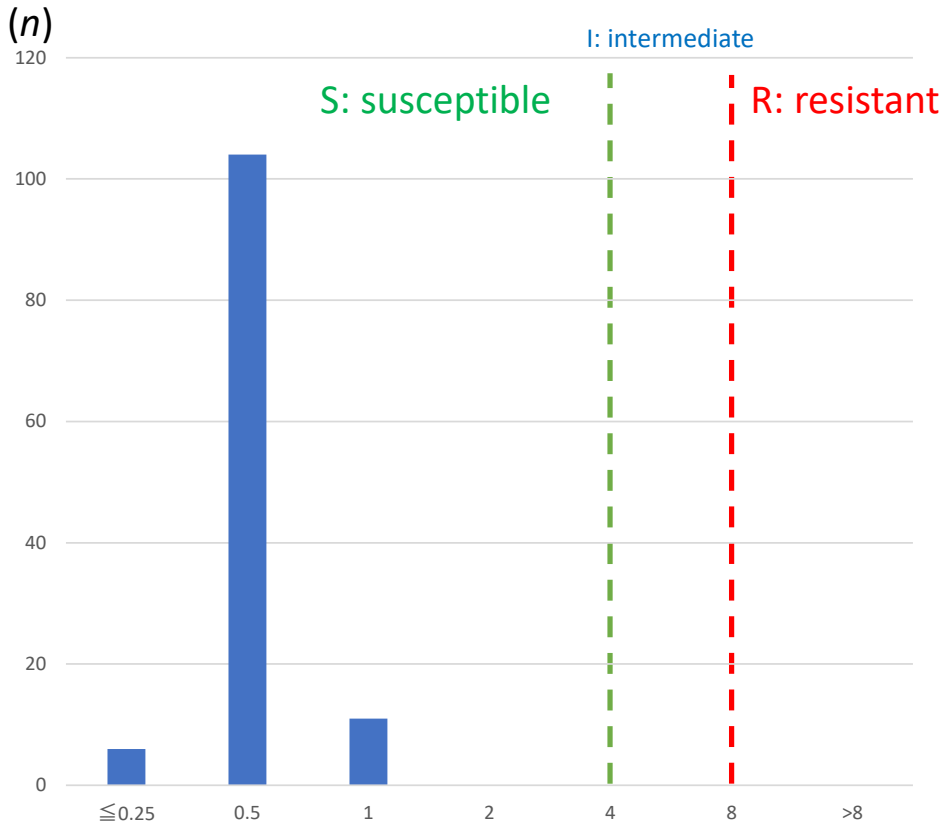
Supplementary Fig. 2

Clindamycin MIC distribution

MIC, minimum inhibitory concentration

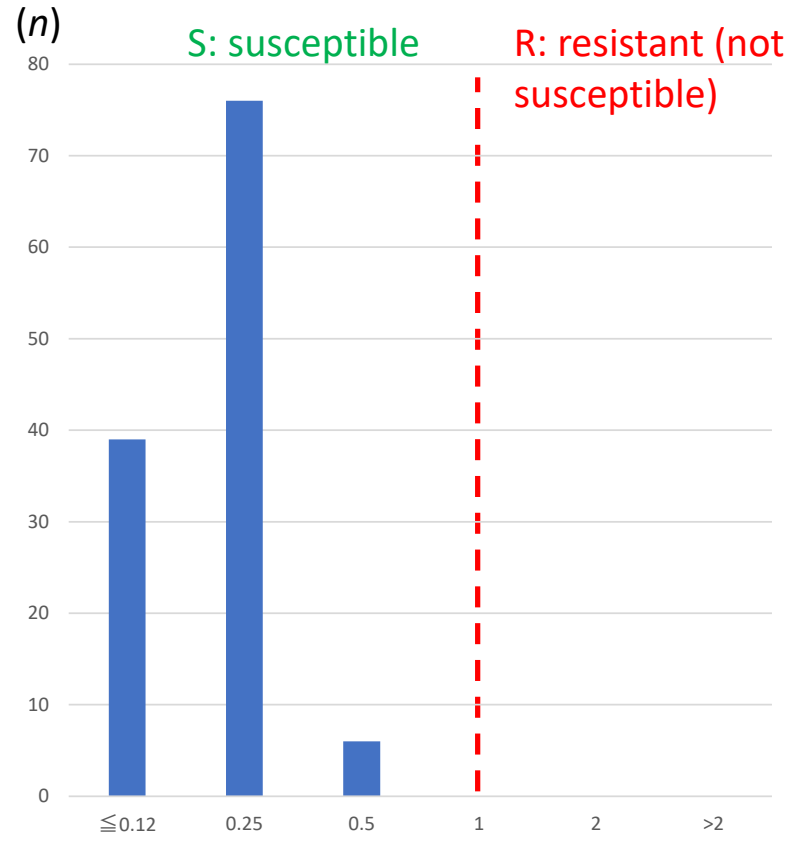
Supplementary Fig. 2

Levofloxacin MIC distribution



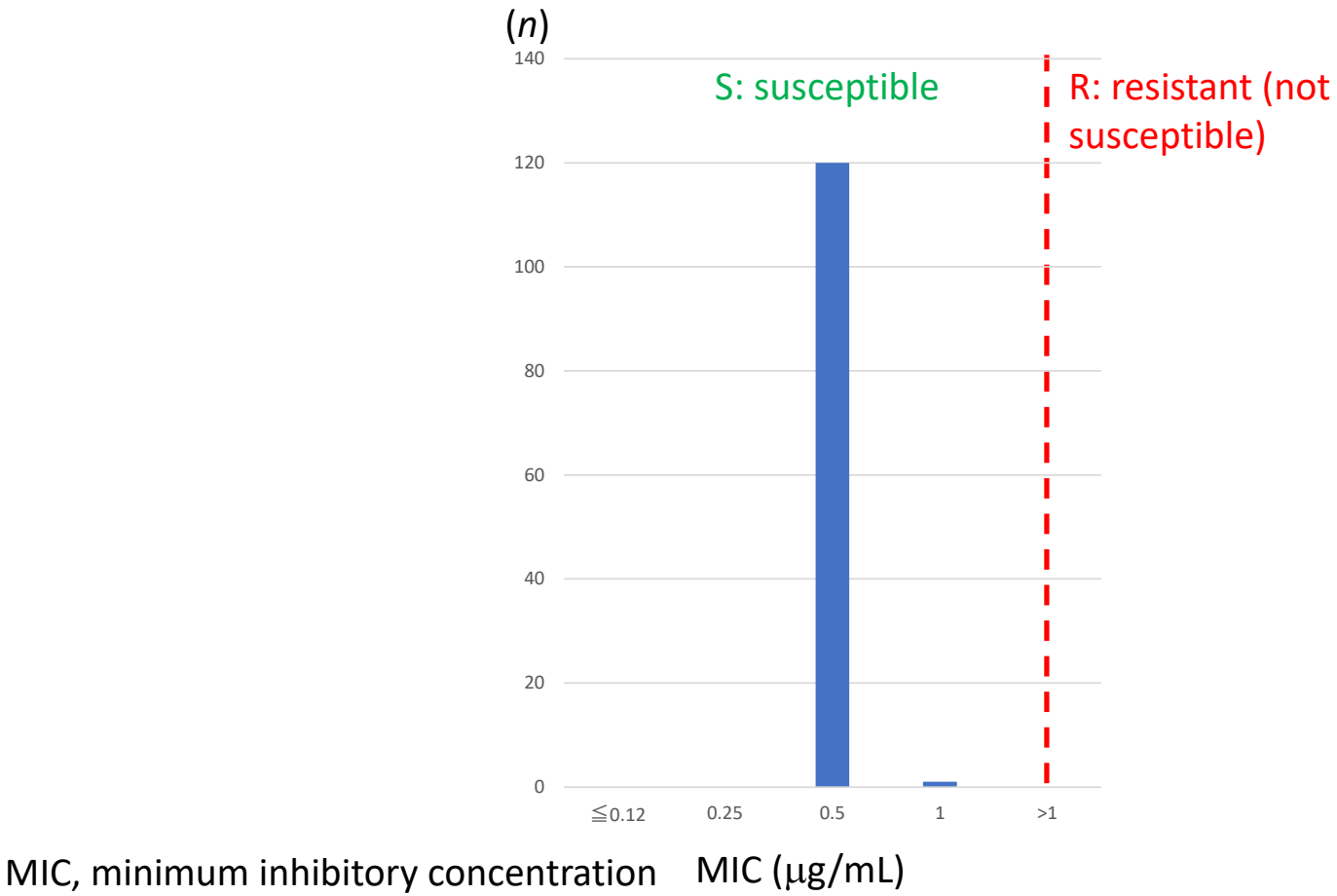
Supplementary Fig. 2

Meropenem MIC distribution



Supplementary Fig. 2

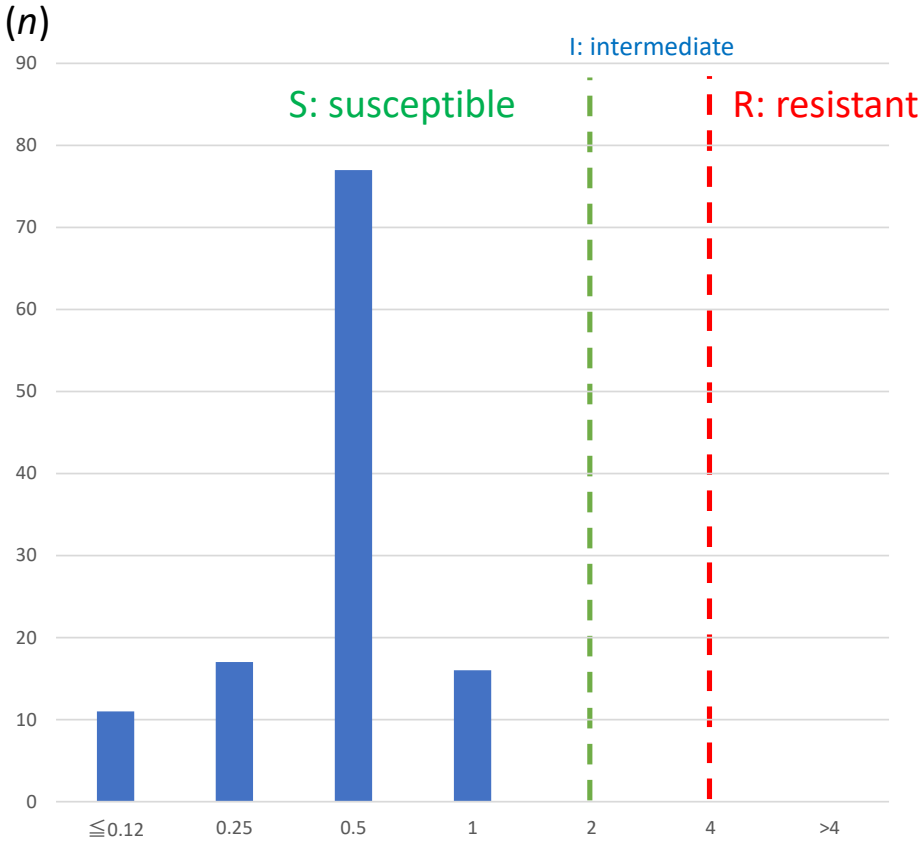
Vancomycin MIC distribution



MIC, minimum inhibitory concentration

Supplementary Fig. 2

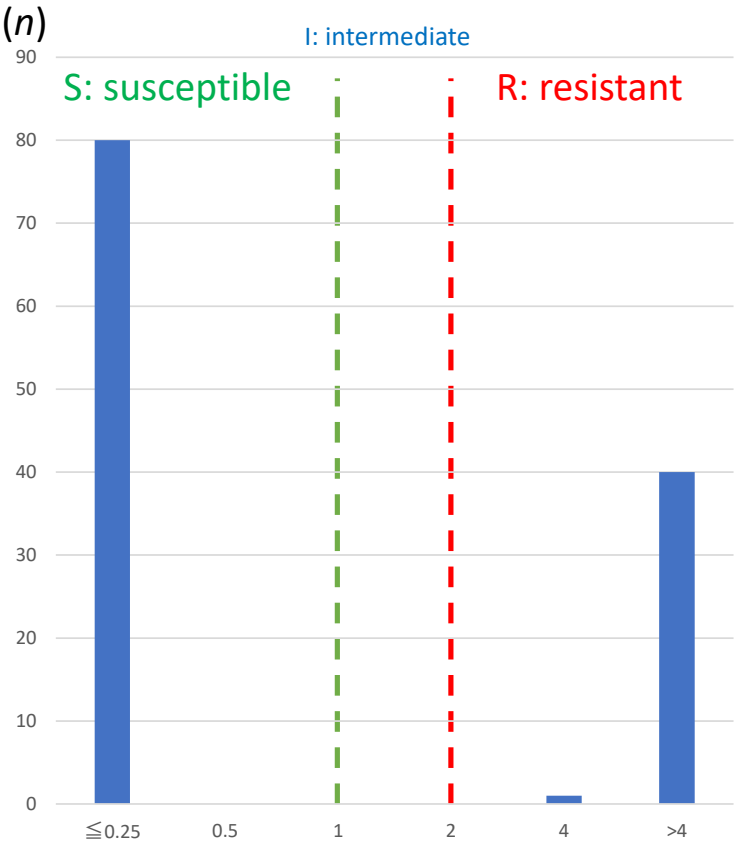
Ceftriaxone MIC distribution



MIC, minimum inhibitory concentration MIC (μg/mL)

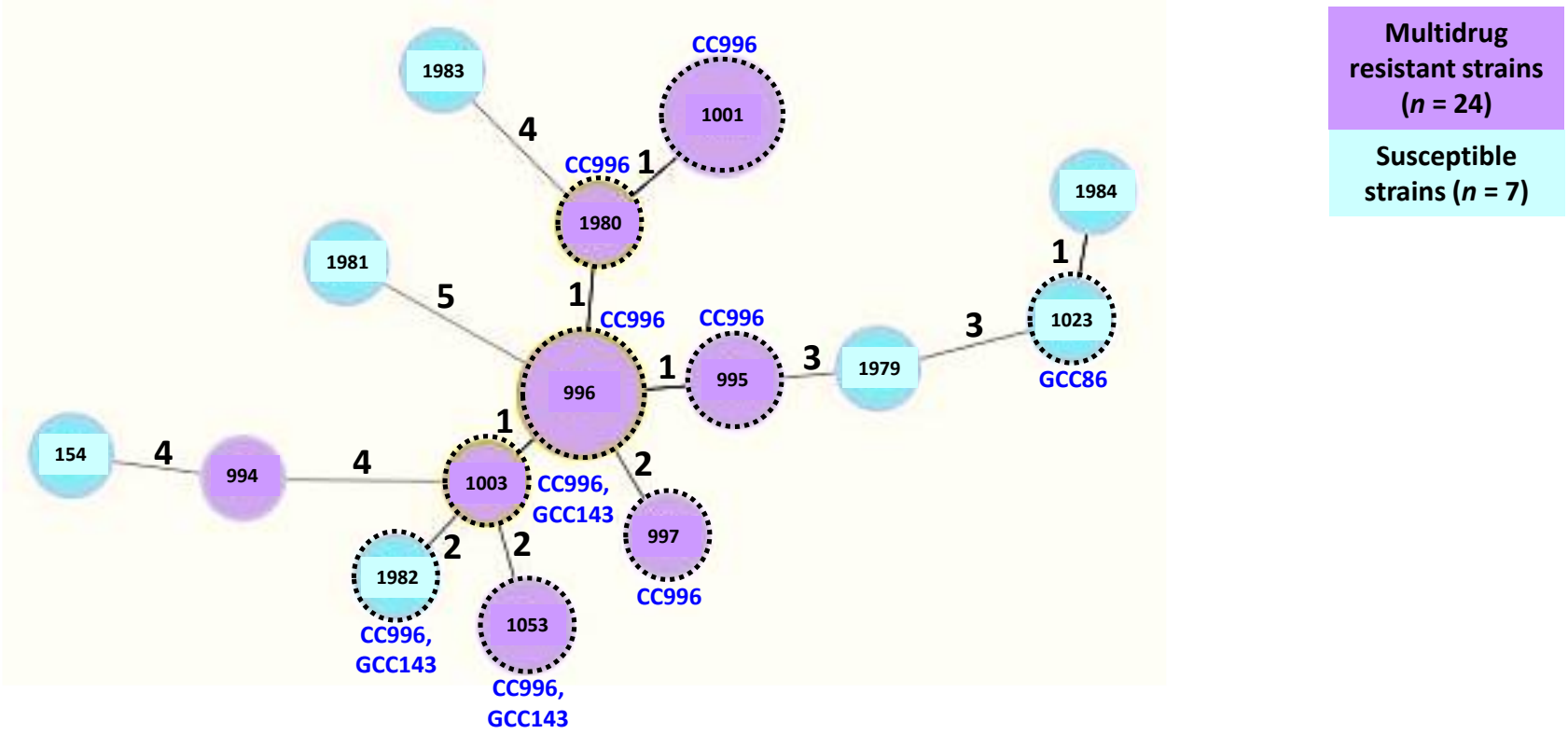
Supplementary Fig. 2

Azithromycin MIC distribution



MIC, minimum inhibitory concentration MIC (μg/mL)

Supplementary Fig. 3



Legend

The goeBURST diagram of antimicrobial susceptibility patterns by *Streptococcus uberis* strains. The numbers in the circles show sequence types (STs), and the numbers near the lines indicate the numbers of differing alleles between two connected STs. Putative clonal complexes (CCs) are identified by an outer dotted frame and correspond to STs with the highest numbers containing single-locus/double-locus/triple-locus variants. Light violet and light blue in the circles represent multidrug resistant strains (*n* = 24) and susceptible strains (*n* = 7), respectively. GCCs, global clonal complexes.

Supplementary Table 1. Fourteen antimicrobial minimum inhibitory concentrations (μg/mL)against each isolate with susceptibility results and antimicrobial resistance (AMR) genotype of each isolate

Isolate (prefecture)	Collection date (year/month)	Penicillin G	Ampicillin	Minocycline	Erythromycin	Chloramphenicol	Cefotaxime	Cefozopran	Cefepime	Clindamycin	Levofloxacin	Meropenem	Vancomycin	Ceftriaxone	Azithromycin	*blaZ*	*erm* (A)	*erm* (B)	*mef* (A)	*linB*	*lnuD*	*tet* (M)	*tet* (O)	*tet* (K)	*tet* (L)	*tet* (S)
UB1 (Chiba)	2022/Mar	0.12	0.25	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB2 (Chiba)	2022/Mar	0.12	0.12	>4	>2	≤4	0.5	0.25	≤0.5	>1	1	0.25	0.5	0.25	>4			*erm* (B)					*tet* (O)			
UB3 (Chiba)	2022/Mar	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	≤0.12	0.5	0.25	≤0.25											
UB4 (Chiba)	2022/Mar	0.12	0.12	>4	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.25	≤0.25						*lnuD*					*tet* (S)
UB5 (Chiba)	2022/Apr	0.12	0.12	≤0.5	≤0.12	≤4	1	0.5	≤0.5	>1	≤0.25	≤0.12	0.5	0.5	≤0.25					*linB*						
UB6 (Chiba)	2022/Apr	0.12	0.12	≤0.5	≤0.12	≤4	1	0.5	≤0.5	>1	0.5	≤0.12	0.5	1	≤0.25					*linB*						
UB7 (Chiba)	2022/Apr	0.12	0.12	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.25	>4			*erm* (B)					*tet* (O)			
UB8 (Chiba)	2022/Apr	0.06	0.12	>4	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.25	≤0.25					*linB*	*lnuD*					*tet* (S)
UB9 (Chiba)	2022/May	0.06	≤0.06	≤0.5	≤0.12	≤4	0.25	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	0.25	≤0.25											
UB10 (Chiba)	2022/May	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	≤0.12	≤0.25	≤0.12	0.5	0.5	≤0.25											
UB11 (Chiba)	2022/May	0.06	0.12	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	≤0.12	0.5	≤0.12	0.5	0.5	≤0.25											
UB12 (Chiba)	2022/May	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
UB13 (Chiba)	2022/May	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25						*lnuD*					
UB14 (Chiba)	2022/May	0.12	≤0.06	≤0.5	≤0.12	≤4	≤0.12	≤0.12	≤0.5	≤0.12	1	≤0.12	0.5	≤0.12	≤0.25											
UB15 (Chiba)	2022/May	0.12	0.12	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB16 (Chiba)	2022/May	0.12	0.25	>4	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25					*linB*	*lnuD*					*tet* (S)
UB17 (Chiba)	2022/May	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	≤0.12	0.5	0.5	≤0.25											
UB18 (Chiba)	2022/May	0.12	0.12	≤0.5	≤0.12	≤4	0.25	0.25	≤0.5	>1	0.5	0.5	0.5	0.5	≤0.25						*lnuD*					
UB19 (Chiba)	2022/May	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	≤0.12	0.5	0.5	≤0.25											
UB20 (Chiba)	2022/May	0.12	0.12	≤0.5	≤0.12	≤4	0.25	0.25	≤0.5	>1	0.5	≤0.12	0.5	0.25	≤0.25					*linB*	*lnuD*					
UB21 (Chiba)	2022/May	0.06	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	≤0.12	0.5	0.25	≤0.25						*lnuD*					
UB22 (Chiba)	2022/May	≤0.03	≤0.06	≤0.5	≤0.12	≤4	≤0.12	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	≤0.12	≤0.25											
UB23 (Chiba)	2022/May	≤0.03	≤0.06	>4	>2	≤4	≤0.12	≤0.12	≤0.5	>1	0.5	≤0.12	0.5	≤0.12	>4			*erm* (B)					*tet* (O)			
UB24 (Chiba)	2022/May	≤0.03	≤0.06	≤0.5	≤0.12	≤4	≤0.12	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	≤0.12	≤0.25											
UB25 (Chiba)	2022/Jun	0.12	0.12	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB26 (Chiba)	2022/Jun	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25						*lnuD*					
UB28 (Chiba)	2022/Jun	0.25	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4	*blaZ*		*erm* (B)					*tet* (O)			
UB29 (Chiba)	2022/Jun	≤0.03	≤0.06	≤0.5	≤0.12	≤4	≤0.12	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	≤0.12	≤0.25											
UB30 (Chiba)	2022/Jun	0.12	0.12	≤0.5	≤0.12	≤4	1	0.5	≤0.5	≤0.12	0.5	≤0.12	1	0.5	≤0.25											
UB31 (Chiba)	2022/Jun	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
UB32 (Chiba)	2022/Jun	0.12	0.25	>4	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25						*lnuD*					*tet* (S)
UB33 (Chiba)	2022/Jun	0.12	0.25	>4	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25						*lnuD*					*tet* (S)
UB34 (Chiba)	2022/Jun	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
UB35 (Chiba)	2022/Jun	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	≤0.12	0.5	0.5	≤0.25											
UB36 (Chiba)	2022/Jun	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB37 (Chiba)	2022/Jun	0.25	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB38 (Chiba)	2022/Jun	0.12	0.25	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB40 (Chiba)	2022/Jun	≤0.03	≤0.06	≤0.5	≤0.12	≤4	≤0.12	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	≤0.12	≤0.25											
UB41 (Chiba)	2022/Jun	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB42 (Chiba)	2022/Jul	0.12	0.12	>4	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25					*linB*	*lnuD*					*tet* (S)
UB44 (Chiba)	2022/Jul	≤0.03	≤0.06	≤0.5	≤0.12	≤4	≤0.12	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	≤0.12	≤0.25											
UB45 (Chiba)	2022/Jul	≤0.03	≤0.06	≤0.5	≤0.12	≤4	0.25	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	≤0.12	≤0.25						*lnuD*					
UB46 (Chiba)	2022/Jul	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25						*lnuD*					
UB47 (Chiba)	2022/Jul	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25	*blaZ*					*lnuD*					
UB48 (Chiba)	2022/Jul	0.12	0.12	>4	≤0.12	≤4	0.25	0.25	≤0.5	>1	0.5	≤0.12	0.5	0.5	≤0.25						*lnuD*					*tet* (S)
UB49 (Chiba)	2022/Jul	0.06	0.12	≤0.5	≤0.12	≤4	0.25	≤0.12	≤0.5	>1	0.5	≤0.12	0.5	0.25	≤0.25					*linB*						
UB50 (Chiba)	2022/Jul	0.12	0.12	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB51 (Chiba)	2022/Jul	0.06	0.12	1	≤0.12	≤4	0.25	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	0.25	≤0.25											*tet* (S)
UB52 (Chiba)	2022/Jul	0.12	0.12	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			

UB53 (Chiba)	2022/Jul	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
UB54 (Chiba)	2022/Jul	0.12	0.12	≤0.5	≤0.12	≤4	1	0.5	≤0.5	≤0.12	0.5	0.25	0.5	1	≤0.25											
UB55 (Chiba)	2022/Jul	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	≤0.25	0.25	0.5	0.5	≤0.25						*lnuD*					
UB56 (Chiba)	2022/Aug	0.12	0.12	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	≤0.12	0.5	0.25	>4			*erm* (B)					*tet* (O)			
UB58 (Chiba)	2022/Aug	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.5	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB59 (Chiba)	2022/Aug	0.12	0.12	>4	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	≤0.12	0.5	0.5	≤0.25					*linB*	*lnuD*					*tet* (S)
UB60 (Chiba)	2022/Aug	0.25	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	1	>4	*blaZ*		*erm* (B)					*tet* (O)			
UB61 (Chiba)	2022/Aug	0.06	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	≤0.12	0.5	0.5	≤0.25											
UB62 (Chiba)	2022/Aug	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	1	0.25	0.5	0.5	≤0.25						*lnuD*					
UB63 (Chiba)	2022/Aug	0.12	0.12	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.25	>4			*erm* (B)					*tet* (O)			
UB64 (Chiba)	2022/Aug	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	1	0.25	0.5	0.5	≤0.25						*lnuD*					
UB65 (Chiba)	2022/Aug	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	1	0.25	0.5	0.5	≤0.25						*lnuD*					
UB66 (Chiba)	2022/Aug	≤0.03	≤0.06	≤0.5	≤0.12	≤4	≤0.12	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	≤0.12	≤0.25											
UB67 (Chiba)	2022/Aug	0.06	0.12	1	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											*tet* (S)
UB68 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB69 (Chiba)	2022/Sep	0.12	0.25	>4	≤0.12	≤4	0.5	0.5	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25			*erm* (B)					*tet* (O)			
UB70 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	1	>4			*erm* (B)					*tet* (O)			
UB71 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB72 (Chiba)	2022/Sep	0.12	0.12	>4	≤0.12	≤4	0.25	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.25	≤0.25			*erm* (B)					*tet* (O)			
UB73 (Chiba)	2022/Sep	≤0.03	≤0.06	≤0.5	≤0.12	≤4	≤0.12	≤0.12	≤0.5	≤0.12	0.5	≤0.12	0.5	≤0.12	≤0.25											
UB74 (Chiba)	2022/Sep	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	1	0.25	0.5	0.5	≤0.25						*lnuD*					
UB75 (Chiba)	2022/Sep	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
UB76 (Chiba)	2022/Sep	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25						*lnuD*					
UB77 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB78 (Chiba)	2022/Sep	0.12	0.12	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	≤0.12	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB79 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB80 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB81 (Chiba)	2022/Sep	0.12	0.12	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB82 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB83 (Chiba)	2022/Sep	0.12	0.12	>4	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	≤0.12	0.5	0.5	≤0.25					*linB*	*lnuD*					*tet* (S)
UB84 (Chiba)	2022/Sep	0.06	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.25	≤0.25						*lnuD*					
UB85 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB86 (Chiba)	2022/Sep	0.25	0.25	>4	>2	≤4	1	0.5	≤0.5	>1	0.5	0.5	0.5	1	>4	*blaZ*		*erm* (B)					*tet* (O)			
UB87 (Chiba)	2022/Sep	0.12	0.12	>4	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	0.5	0.5	0.5	≤0.25						*lnuD*					*tet* (S)
UB88 (Chiba)	2022/Sep	0.12	0.12	4	>2	≤4	1	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)		*linB*			*tet* (O)			
UB89 (Chiba)	2022/Sep	0.12	0.25	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB90 (Chiba)	2022/Sep	0.12	0.12	>4	≤0.12	≤4	0.5	0.5	≤0.5	>1	0.5	0.5	0.5	1	≤0.25					*linB*	*lnuD*					*tet* (S)
UB91 (Chiba)	2022/Sep	0.12	0.12	>4	≦0.12	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25					*linB*	*lnuD*					*tet* (S)
UB92 (Chiba)	2022/Oct	0.12	0.25	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB93 (Chiba)	2022/Oct	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
UB94 (Chiba)	2022/Oct	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
UB96 (Chiba)	2022/Oct	0.06	0.12	≤0.5	≤0.12	≤4	0.25	0.25	≤0.5	≤0.12	0.5	≤0.12	0.5	0.5	≤0.25											
UB97 (Chiba)	2022/Oct	0.12	0.12	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB98 (Chiba)	2022/Oct	0.12	0.25	≤0.5	≤0.12	≤4	1	0.5	≤0.5	≤0.12	0.5	0.25	0.5	1	≤0.25											
UB99 (Chiba)	2022/Oct	0.25	0.25	>4	>2	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
UB100 (Chiba)	2022/Oct	0.25	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	1	>4			*erm* (B)					*tet* (O)			
UB101 (Chiba)	2022/Oct	0.12	0.12	>4	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.25	≤0.25						*lnuD*					*tet* (S)
UB102 (Chiba)	2022/Oct	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	1	≤0.12	0.5	0.5	≤0.25											
UB103 (Chiba)	2022/Oct	0.12	0.12	≤0.5	≤0.12	≤4	0.25	0.25	≤0.5	>1	1	≤0.12	0.5	0.5	≤0.25						*lnuD*					
UB104 (Chiba)	2022/Oct	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	≤0.12	0.5	0.5	≤0.25											
UB105 (Chiba)	2022/Oct	0.12	0.12	>4	≤0.12	≤4	0.5	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25					*linB*	*lnuD*					*tet* (S)
UB106 (Chiba)	2022/Oct	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25						*lnuD*					*tet* (S)

HK1 (Hokkaido)	2023/Aug	0.25	0.25	>4	>2	≤4	1	0.5	≤0.5	>1	0.5	0.25	0.5	1	>4			*erm* (B)					*tet* (O)			
HK2 (Hokkaido)	2023/Aug	0.06	0.25	≤0.5	≤0.12	≤4	1	0.5	≤0.5	≤0.12	0.5	0.25	0.5	1	≤0.25											
HK3 (Hokkaido)	2023/Aug	0.12	0.25	≤0.5	≤0.12	≤4	1	0.5	≤0.5	≤0.12	0.5	0.25	0.5	1	≤0.25											
HK4 (Hokkaido)	2023/Aug	0.12	0.12	≤0.5	≤0.12	≤4	1	0.5	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
HK5 (Hokkaido)	2023/Aug	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	1	≤0.12	0.5	0.5	≤0.25											
HK6 (Hokkaido)	2023/Aug	0.12	0.25	>4	>2	≤4	1	0.25	≤0.5	>1	0.5	0.25	0.5	1	>4			*erm* (B)					*tet* (O)			
HK7 (Hokkaido)	2023/Aug	0.06	0.12	>4	>2	≤4	0.25	≤0.12	≤0.5	>1	≤0.25	≤0.12	0.5	≤0.12	>4			*erm* (B)				*tet* (M)	*tet* (O)			
HK8 (Hokkaido)	2023/Aug	0.12	0.25	≤0.5	>2	≤4	0.5	0.5	≤0.5	≤0.12	0.5	0.25	0.5	1	4				*mef* (A)							
HK9 (Hokkaido)	2023/Aug	0.12	0.12	≤0.5	≤0.12	≤4	0.5	0.5	≤0.5	≤0.12	≤0.25	0.25	0.5	0.25	≤0.25						*lnuD*					
HK10 (Hokkaido)	2023/Aug	0.25	0.25	≤0.5	≤0.12	≤4	1	1	≤0.5	>1	0.5	0.5	0.5	1	≤0.25					*linB*						
HK11 (Hokkaido)	2023/Aug	0.06	0.12	≤0.5	≤0.12	≤4	0.25	0.25	≤0.5	≤0.12	≤0.25	≤0.12	0.5	0.25	≤0.25											
HK12 (Hokkaido)	2023/Aug	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
HK13 (Hokkaido)	2023/Aug	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	0.5	0.25	0.5	0.5	≤0.25											
HK14 (Hokkaido)	2023/Aug	0.12	0.12	>4	>2	≤4	1	0.5	≤0.5	>1	0.5	≤0.12	0.5	1	>4			*erm* (B)					*tet* (O)			
HK15 (Hokkaido)	2023/Aug	0.12	0.12	1	≤0.12	≤4	0.25	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25					*linB*						
HK16 (Hokkaido)	2023/Aug	0.12	0.25	>4	>2	≤4	0.5	0.5	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
HK17 (Hokkaido)	2023/Sep	0.25	0.25	>4	≤0.12	≤4	0.5	0.5	≤0.5	>1	1	0.25	0.5	1	≤0.25					*linB*						*tet* (S)
HK18 (Okinawa)	2023/Sep	0.12	0.25	>4	≤0.12	≤4	0.25	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	≤0.25					*linB*	*lnuD*					*tet* (S)
HK19 (Okinawa)	2023/Sep	0.12	0.25	≤0.5	≤0.12	≤4	0.5	0.25	≤0.5	≤0.12	1	≤0.12	0.5	0.5	≤0.25											
HK20 (Hokkaido)	2023/Sep	0.12	0.25	>4	>2	≤4	0.25	0.25	≤0.5	>1	0.5	0.25	0.5	0.5	>4			*erm* (B)					*tet* (O)			
Yellow shading indicates AMR phenotype and genotype. Green shading indicates intermediate susceptibility.																										

271

Supplementary Table 2. Oligonucleotide primer set for amplifying antimicrobial resistance gene, their melting temperature (Tm) value, and amplicon size by polymerase chain reaction (PCR)

Target gene (function or encoding protein)	Primer set	Direction	Sequence (5'→3')	Length (mer)	Expected amplicon size (bp)	Tm value (°C)	Reference
16S rRNA	27F	forward	AGAGTTTGATCMTGGCTCAG	20	1459	52	[4, 17]
(internal control)	1485R	reverse	TACGGTTACCTTGTTACGAC	20		49	
blaZ	stau-blaZ-fwd	forward	CAAAGATGATATAGTTGCTTATTCTCC	27	421	54	[16]
(penicillinase)	stau-blaZ-rev	reverse	TGCTTGACCACTTTTATCAGC	21		52	
erm (A)	ermA-F	forward	CCCGAAAAATACGCAAAATTTCAT	24	590	53	[5, 11]
(inducible-type methylase)	ermA-R	reverse	CCCTGTTTACCCATTTATAAACG	23		51	
erm (B)	ermB-F	forward	TGGTATTCCAAATGCGTAATG	21	745	50	[5, 11]
(constitutive-type methylase)	ermB-R	reverse	CTGTGGTATGGCGGGTAAGT	20		53	
mef (A)	mefA-F	forward	CAATATGGGCAGGGCAAG	18	317	51	[5, 11]
(transmembrane domains of an ABC transporter)	mefA-R	reverse	AAGCTGTTCCAATGCTACGG	20		54	
linB	linB-F	forward	CCTACCTATTGTTTGTGGAA	20	945	47	[5]
(lincosamide nucleotidyltransferase)	linB-R	reverse	ATAACGTTACTCTCCTATTC	20		45	
lnuD	lnuD-F	forward	ACGGAGGGATCACATGGTAA	20	475	52	[5]
(lincosamide nucleotidyltransferase)	lnuD-R	reverse	TCTCTCGCATAATAACCTTACGTC	24		55	
tet (M)	tetM-F	forward	GTGGACAAAGGTACAACGAG	20	406	51	[5, 11]
(ribosomal protection protein)	tetM-R	reverse	CGGTAAAGTTCGTCACACAC	20		51	
tet (O)	tetO-F	forward	AACTTAGGCATTCTGGCTCAC	21	515	54	[5, 11]
(ribosomal protection protein)	tetO-R	reverse	TCCCACTGTTCCATATCGTCA	21		53	
tet (K)	tetK-F	forward	GATCAATTGTAGCTTTAGGTGAAGG	25	155	55	[5, 11]
(efflux pump)	tetK-R	reverse	TTTTGTTGATTTACCAGGTACCATT	25		52	
tet (L)	tetL-F	forward	TGGTGGAATGATAGCCCATT	20	229	51	[5, 11]
(efflux pump)	tetL-R	reverse	CAGGAATGACAGCACGCTAA	20		54	
tet (S)	tetS-F	forward	TCCGATAGTGATCCCCTTCT	20	445	52	[5, 11]
(ribosomal protection protein)	tetS-R	reverse	GGAAATCTGCTGGCGTACTG	20		54	

Tm value was calculated using nearest neighbor method.

PCR was done with an initial denaturation at 93°C/3 min, followed by 30 cycles (denaturation at 93°C/1 min, annealing at 62°C/1 min, and extension at 65°C/4 min), and a final extension at 65°C/3 min.