

SUPPLEMENTARY MATERIAL

SUPPLEMENTARY TABLE S1. The AST results of the two strains in the study.

CLSI class	Antimicrobial agent	MIC interpretive standard (µg/mL)			Result (MICs)			
		Susceptible	Intermediate	Resistant	G2		G5	
Penicillins	Ampicillin (AMP)	≤8	16	≥32	≤1	S	≤1	S
β-lactamase inhibitor combinations	Ampicillin/Sulbactam (AMS)	≤8/4	16/8	≥32/16	≤1/0.5	S	≤1/0.5	S
	Ceftazidime/avibactam (CAZ)	≤8/4	NA	≥16/8	≤2/1	S	≤4/2	S
Cephems	Cefazolin (CFZ)	≤2	4	≥8	1	S	2	S
	Cefuroxime (CXM)	≤4	8–16	≥32	2	S	2	S
	Cefotaxime (CTX)	≤1	2	≥4	≤0.25	S	≤0.5	S
	Ceftazidime (CAZ)	≤4	8	≥16	0.5	S	1	S
	Cefepime (CPM)	≤2	NA	≥16	≤1	S	≤1	S
	Cefoxitin (CFX)	≤8	16	≥32	2	S	4	S
	Imipenem (IMP)	≤1	2	≥4	≤0.25	S	≤0.25	S
Penems	Meropenem (MEM)	≤1	2	≥4	0.25	S	0.25	S
	Ertapenem (ETP)	≤0.5	1	≥2	≤0.25	S	≤0.25	S
	Meropenem (MEM)	≤1	2	≥4	0.25	S	0.25	S
Aminoglycosides	Gentamicin (GEN)	≤2	4	≥8	≤1	S	≤1	S
	Streptomycin (STR)*	≤32	NA	≥64	8	S	8	S
	Amikacin (AMK)	≤4	8	≥16	≤2	S	≤2	S
Macrolides	Azithromycin (AZI)	≤16	NA	≥32	4	S	4	S
Monobactams	Aztreonam (ATM)	≤4	8	≥16	4	S	2	S
Tetracyclines	Tetracycline (TET)	≤4	8	≥16	≤1	S	≤1	S
Quinolones	Nalidixic acid (NAL)	≤16	NA	≥32	4	S	8	S
	Ciprofloxacin (CIP)	≤0.06	0.12–0.5	≥1	≤0.015	S	≤0.015	S
Phenicol	Chloramphenicol (CHL)	≤8	16	≥32	4	S	4	S
Folate pathway inhibitors	Trimethoprim/sulfamethoxazole (SXT)	≤2/38	NA	≥4/76	≤0.25/4.75	S	≤0.25/4.75	S

Abbreviation: NA=not applicable.

* STR is streptomycin breakpoints followed NARMS Standard, while other antibiotics used CLSI guideline.

SUPPLEMENTARY TABLE S2. The 53 genomes of *S. Grumpensis* used in the study.

SRA	BioSample	location	Sequence type	Year	Source 1	Source 2
ERR2812291	SAMEA4939521	Spain	2060	2018	Human	
ERR2812292	SAMEA4939522	Spain	2060	2018	Human	
ERR2812293	SAMEA4939523	Spain	2060	2018	Human	
ERR2812294	SAMEA4939524	Spain	2060	2018	Human	
ERR2812311	SAMEA4939541	Spain	2060	2017	Human	
ERR2812312	SAMEA4939542	Spain	2060	2017	Human	
ERR2812313	SAMEA4939543	Spain	2060	2017	Human	
ERR2812314	SAMEA4939544	Spain	2060	2017	Human	
ERR2812315	SAMEA4939545	Spain	2060	2017	Human	
ERR2812316	SAMEA4939546	Spain	2060	2017	Human	
ERR2812317	SAMEA4939547	Spain	2060	2006	Human	
ERR2812318	SAMEA4939548	Spain	2060	2007	Human	
ERR2812319	SAMEA4939549	Spain	2060	2017	Human	

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SRA	BioSample	location	Sequence type	Year	Source 1	Source 2
ERR2812320	SAMEA4939550	Spain	2060	2017	Human	
ERR2812321	SAMEA4939551	Spain	2060	2017	Human	
ERR2812322	SAMEA4939552	Spain	2060	2017	Human	
ERR2812323	SAMEA4939553	Spain	2060	2017	Human	
ERR2812324	SAMEA4939554	Spain	2060	2017	Human	
ERR2812326	SAMEA4939565	Spain	2060	2016	Human	
ERR2812327	SAMEA4939566	Spain	2060	2017	Human	
ERR4399645	SAMEA7113136	Ireland	2060	2007	Human	
ERR4399741	SAMEA7113232	Ireland	2060	2007	Human	
ERR4401224	SAMEA7114717	Netherlands	96	2005	Plant	
ERR5490209	SAMEA8227021	Gambia	2060	2013	Human	
SRR10139533	SAMN12783652	UK	2060	2019	Human	
SRR11142710	SAMN14161829	UK	2060	2020	Human	
SRR11409991	SAMN14443813	UK	751	2020	Other	
SRR11425106	SAMN14449695	UK	751	2020	Other	
SRR11425253	SAMN14449709	UK	2060	2020	Human	
SRR11600410	SAMN14681283	UK	2060	2020	Human	
SRR13203049	SAMN16927787	Canada	751	2017	Human	
SRR15539823	SAMN20880130	USA	751	2021	Unknown	
SRR1604894	SAMN02678803	India	Novel	2010	Food	
SRR16764823	SAMN22867027	UK	2060	2021	Human	
SRR19552634	SAMN28885006	UK	2060	2022	Human	
SRR1967988	SAMN03478079	UK	2060	2014	Human	
SRR21981001	SAMN31382628	USA	751	2022	Unknown	
SRR25872707	SAMN31209171	UK	751	2022	Human	
SRR25873085	SAMN31169200	UK	751	2022	Human	
SRR26351730	SAMN37769924	USA	2060	2023	Unknown	
SRR3930417	SAMN05389757	USA	751	2016	Human	
SRR3996846	SAMN05464603	USA	2060	2011	Human	
SRR5361174	SAMN06481001	USA	751	Unknown	Unknown	
SRR6410434	SAMN08199243	USA	751	2017	Human	
SRR7064962	SAMN08951167	Brazil	751	2016	Poultry	
SRR7475324	SAMN09610265	UK	2060	2015	Human	
SRR7892229	SAMN10104853	UK	751	2016	Unknown	
SRR8380058	SAMN10662455	UK	2060	2018	Human	
SRR8401411	SAMN10698050	UK	751	2018	Human	
SRR8987871	SAMN11533635	Senegal	2060	2008	Human	CSF
SRR9281773	SAMN02678803	India	2767	2010	Food	
G2		China	2060	2023	Human	
G5		China	2060	2023	Human	