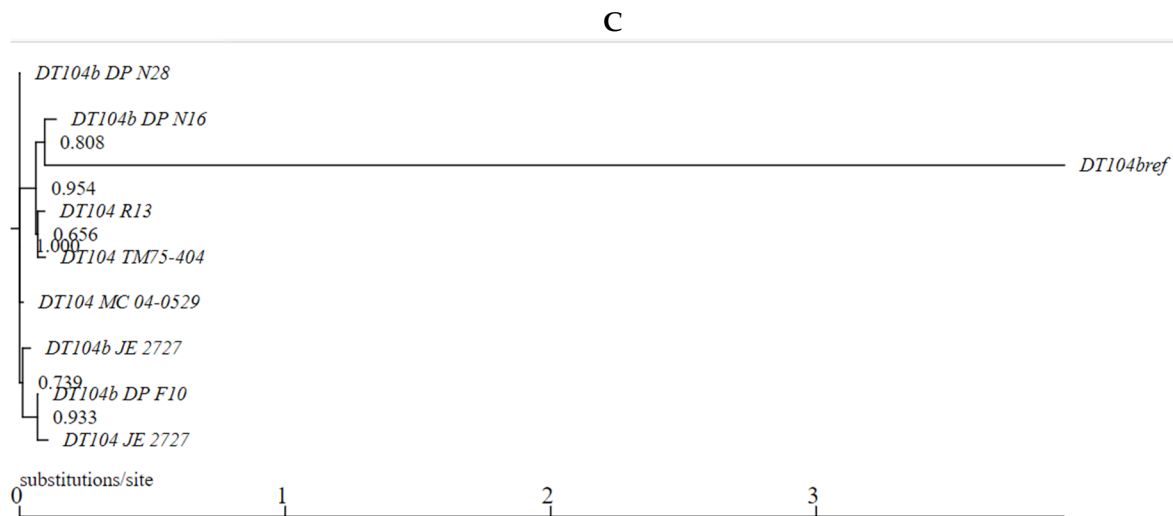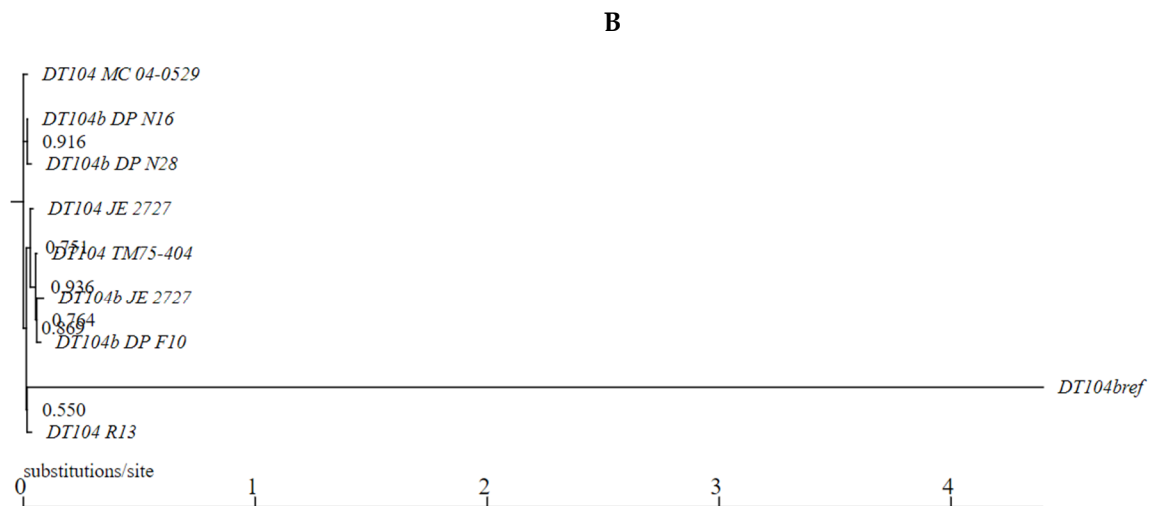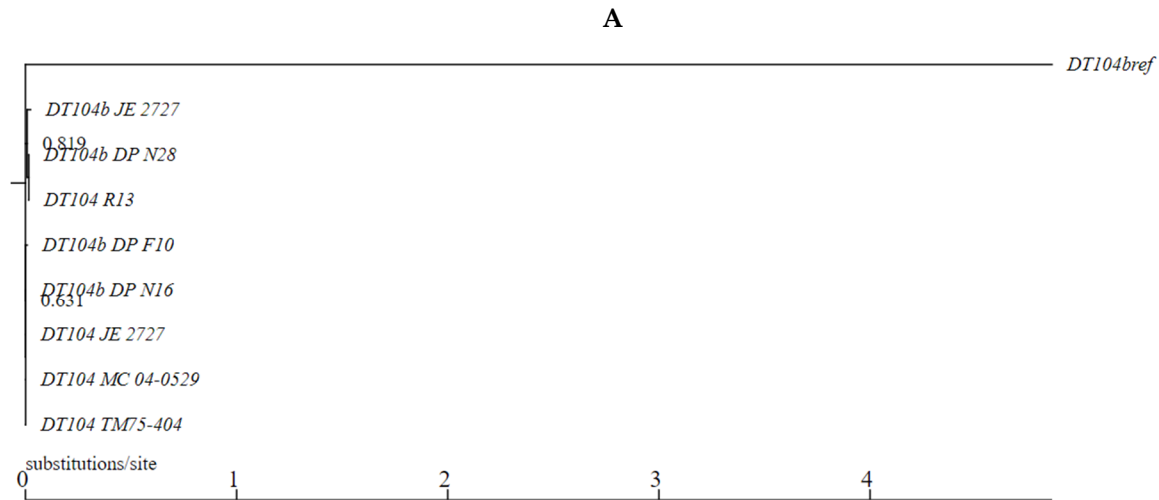Supplementary Table S1. WGS-based identification of antimicrobial resistance determinants.

Strain ID	Phage Type	Resistance determinants	
DP_F10	DT104b	*aac(6′)-Iaa*	Amikacin, Tobramycin
		aadA2b	Streptomycin
		sul1	Sulfamethoxazole
		tet(G)	Tetracycline
		floR	Chloramphenicol
		blaCARB-2	Ampicillin
DP_N16	DT104b	*aac(6′)-Iaa*	Amikacin, Tobramycin
		aadA2b, aph(6)-Id, aph(3′′)-Ib	Streptomycin
		sul1, sul2	Sulfamethoxazole
		tet(G)	Tetracycline
		floR	Chloramphenicol
		blaCARB-2	Ampicillin
		dfrA14	Trimethoprim
DP_N28	DT104b	*aac(6′)-Iaa*	Amikacin, Tobramycin
		aadA2b, aph(6)-Id, aph(3′′)-Ib	Streptomycin
		sul1, sul2	sulfamethoxazole
		tet(G)	Tetracycline
		floR	Chloramphenicol
		blaCARB-2	Ampicillin
		dfrA14	Trimethoprim
JE_2727	DT104b	*aac(6′)-Iaa*	Amikacin, Tobramycin
		aadA2b	Streptomycin
		sul1	Sulfamethoxazole
		tet(G)	Tetracycline
		floR	Chloramphenicol
		blaCARB-2	Ampicillin
DT104b ref.	DT104b	*aac(6′)-Iaa*	Amikacin, Tobramycin
JM_04.26	DT104	*sul1*	Sulfamethoxazole
		aadA2b	Streptomycin
		aac(6′)-Iaa	Amikacin, Tobramycin
MC_04-0529	DT104	*aadA2b*	Streptomycin
		aac(6′)-Iaa	Amikacin, Tobramycin
		sul1	Sulfamethoxazole
		tet(G)	Tetracycline
		floR	Chloramphenicol
		blaCARB-2	Ampicillin
R13	DT104	*aac(6′)-Iaa*	Amikacin, Tobramycin
		aadA2b	Streptomycin
		sul1	Sulfamethoxazole
		tet(G)	Tetracycline
		floR	Chloramphenicol
		blaCARB-2	Ampicillin
TM75-404	DT104	*aac(6′)-Iaa*	Amikacin, Tobramycin
DT104 ref.	DT104	*aadA2b*	Streptomycin
		aac(6′)-Iaa	Amikacin, Tobramycin
		sul1	Sulfamethoxazole
		tet(G)	Tetracycline
		floR	Chloramphenicol
		blaCARB-2	Ampicillin
LT2	DT4	*aac(6′)-Iaa*	Amikacin, Tobramycin

Supplementary Table S2. Distribution of potential genes coding for phage receptors among all strains of DT104 and DT104b

Gene	DP_F10 (DT104b)	DP_N16 (DT104b)	DP_N28 (DT104b)	JE_2727 (DT104b)	DT104b ref. (DT104b)	JM_04.26 (DT104)	MC_04-0529 (DT104)	R13 (DT104)	TM75-404 (DT104)	DT104 ref. (DT104)
Lipopolysaccharide biosynthesis protein WzxC	+	+	+	+	+	+	+	+	+	+
LPS O-antigen biosynthesis protein RfbU	+	+	-	+	+	+	+	+	+	+
Lipopolysaccharide N-acetylmannosaminouronosyltransferase (EC 2.4.1.180)	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide biosynthesis protein WzzE	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide export system protein LptC	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide export system protein LptA	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide ABC transporter, ATP-binding protein LptB	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide export system permease protein LptG	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide export system permease protein LptF	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide 1,2-N-acetylglucosaminetransferase (EC 2.4.1.56)	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide assembly protein LapB	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide core heptose(II)-phosphate phosphatase	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide core heptosyltransferase III	+	+	+	+	+	+	+	+	+	+
UDP-glucose:(heptosyl) LPS alpha1,3-glucosyltransferase WaaG	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide core heptose(I) kinase RfaP	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide 1,3-galactosyltransferase (EC 2.4.1.44)	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide 1,6-galactosyltransferase (EC 2.4.1.-)	+	+	+	+	+	+	+	+	+	+
UDP-glucose:(glucosyl)lipopolysaccharide alpha-1,2-glucosyltransferase (EC 2.4.1.58)	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide core heptose(II) kinase RfaY	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide core biosynthesis protein RfaZ	+	+	+	+	+	+	+	+	+	+
Lipopolysaccharide core heptosyltransferase I	+	+	+	+	+	+	+	+	+	+
Phosphoethanolamine transferase EptC [E.coli], specific for LPS heptose I residue	+	+	+	+	+	+	+	+	+	+
YihE protein, a ser/thr kinase implicated in LPS synthesis and Cpx signalling	+	+	+	+	+	+	+	+	+	+

Supplementary Figure S1. (A) ML phylogenetic tree of *Salmonella* Typhimurium DT104 and DT104b strains based on SNPs of prophags Salmon_118970_sal3; (B) ML phylogenetic tree of *Salmonella* Typhimurium DT104 and DT104b strains based on SNPs of prophage Salmon_ST64B; (C) ML phylogenetic tree of *Salmonella* Typhimurium DT104 and DT104b strains based on SNPs of prophage Gifsy-2; (D) ML phylogenetic tree of *Salmonella* Typhimurium DT104 and DT104b strains based on SNPs of prophage Gifsy-1.

A

B

C

D

DT104b DP F10
0.686
DT104 JE 2727

DT104b JE 2727

DT104b DP N28

DT104 MC 04-0529

DT104 TM75-404
0.830
0.715

0.165
0.941
DT104 R13

DT104b DP N16

DT104bref

substitutions/site

1   2   3