

Table S1 Characteristics of P1 phage carrying antibiotic resistance gene

Name	GenBank No.	Strain	Location	Source	Size (kb)	Antibiotic resistance gene	Plasmid type	Mobile elements connect with P1 phage	Gene loci in P1 phage
SJ46	KU760857	<i>Salmonella</i>	China	Pork	103.4	<i>bla</i> _{CTX-M-27}	N/T	Tn1721	<i>ref, mat</i>
unnamed2	CP031191	<i>Salmonella</i>	China	Chicken	103.4	<i>bla</i> _{CTX-M-27}	N/T	Tn1721	<i>ref, mat</i>
p14146	CP064673	<i>Salmonella</i>	China	Chicken meat	103.4	<i>bla</i> _{CTX-M-27}	N/T	Tn1721	<i>ref, mat</i>
p14076B	CP064676	<i>Salmonella</i>	China	Chicken meat	103.4	<i>bla</i> _{CTX-M-27}	N/T	Tn1721	<i>ref, mat</i>
JL22	ON018986	<i>Escherichia coli</i>	China	Duck	99.6	<i>bla</i> _{CTX-M-55}	N/T	IS1380	<i>upfB</i>
unnamed3	CP041922	<i>Escherichia coli</i>	China	Sputum	94.6	<i>bla</i> _{CTX-M-55}	N/T	IS1380	<i>upfA</i>
pEC5502-2	CP092645	<i>Escherichia coli</i>	China	Urine	99.2	<i>bla</i> _{CTX-M-55}	N/T	ISKpn19, Tn3	<i>cin, lxr</i>
pSCEC128	MH844525	<i>Escherichia coli</i>	China	-	101.1	<i>mcr-1</i>	N/T	IS <i>AplI</i>	<i>ant1</i>
p1-HYM1	CP141766	<i>Escherichia coli</i>	China	Duck	96.1	<i>mcr-1</i>	N/T	IS <i>AplI</i>	<i>ant1</i>
pTB-nb1	CP033632	<i>Escherichia coli</i>	China	Chicken	147.4	<i>sul1, aadA1, dfrA1, aph(6')-Id, aph(3'')-Ib, sul2, aac(3)-IId, aph(3')-IIa, oqxAB, bla</i> _{CTX-M-65} , <i>fosA3, tet(A)</i>	IncHI2	IS421, IS6	<i>gp21, phage protein</i>
pMB3176_1	CP103719	<i>Escherichia coli</i>	USA	Blood	250.7	<i>sul1, aadA5, dfrA17, bla</i> _{CTX-M-15} , <i>bla</i> _{OXA-1} , <i>aac(6')-Ib-cr5, tetR(B), tet(B), tet(C)</i>	IncF	ISEc45	<i>upfB</i>
pTZ20_1P	MN510447	<i>Escherichia</i>	Australia	Pig	130.1	<i>dfrA12, aadA2, cmlA, aadA1, sul3, bla</i> _{TEM}	IncF	IS26, Tn1721	<i>cin, pacA</i>

pFUJ80155-1 DNA	AP024695	<i>coli</i> <i>Escherichia coli</i>	Japan	Human	147.0	^{1B} , <i>aac(3)-IV</i> , <i>aph(4)-Ia</i> <i>bla</i> _{TEM-1A} , <i>sul3</i> , <i>cmlA1</i> , <i>tetX</i> , <i>aadA1</i> , <i>aadA2</i> , <i>dfrA12</i>	IncFIB	Tn3	<i>ref</i>
pCRKP-59- KPC	KX928752	<i>Klebsiella pneumoniae</i>	China	Patient	216.9	<i>qepA1</i> , <i>rmtB1</i> , <i>bla</i> _{TEM-1} , <i>aac(3)-IIId</i> , <i>bla</i> _{KPC-2} ,	IncF	IS6	<i>gpU</i>

N/T: not typeable; -: no information;