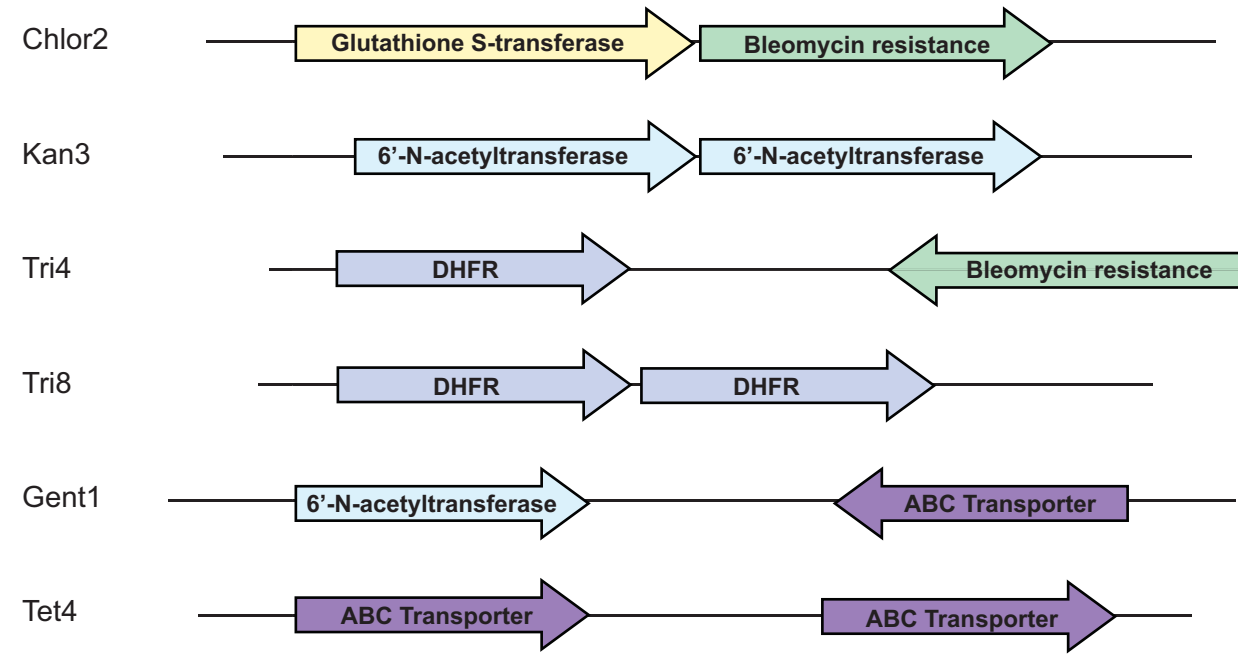


Table S1. PhyloPythia classification results for recovered antibiotic resistant metagenomic clones.

Clone ID	Domain	Phylum	Class
kan1	Bacteria	Proteobacteria	Alphaproteobacteria
kan2	Bacteria	Actinobacteria	
kan3	Bacteria	Proteobacteria	Alphaproteobacteria
kan4	Bacteria		
gent1	Bacteria	Proteobacteria	Alphaproteobacteria
chlor1	Bacteria	Proteobacteria	Gammaproteobacteria
chlor2	Bacteria	Proteobacteria	
chlor3	Bacteria	Proteobacteria	Betaproteobacteria
rif1	Bacteria	Firmicutes	
rif2	Bacteria	Proteobacteria	
rif3	Archaea		
rif4	Bacteria		
rif5	Bacteria		
rif6	Bacteria	Proteobacteria	Gammaproteobacteria
rif7	Bacteria	Actinobacteria	Actinobacteria
tri1	Bacteria	Proteobacteria	Betaproteobacteria
tri2	Bacteria		
tri3	Bacteria	Proteobacteria	
tri4	Bacteria	Actinobacteria	
tri5	Bacteria		
tri6	Bacteria		
tri7	Bacteria	Proteobacteria	Alphaproteobacteria
tri8	Bacteria	Actinobacteria	Actinobacteria
tri9	Bacteria	Actinobacteria	Actinobacteria
tri10	Bacteria	Proteobacteria	Betaproteobacteria
tri11	Bacteria	Actinobacteria	Actinobacteria
tri12	Bacteria	Proteobacteria	Betaproteobacteria
tri13	Bacteria		
tri14	Bacteria	Proteobacteria	
tri15	Bacteria	Actinobacteria	Actinobacteria
tri16	Bacteria	Proteobacteria	
tri17	Bacteria		
tri18	Bacteria	Proteobacteria	Betaproteobacteria
tri19	Bacteria	Proteobacteria	Alphaproteobacteria
tri20	Bacteria	Proteobacteria	Betaproteobacteria
tet1	Bacteria	Actinobacteria	
tet2	Bacteria	Firmicutes	Bacilli
tet3	Bacteria	Proteobacteria	
tet4	Bacteria		

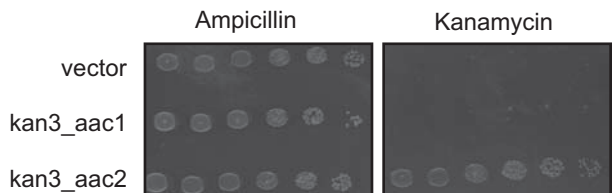
Supplementary Figure 1

A

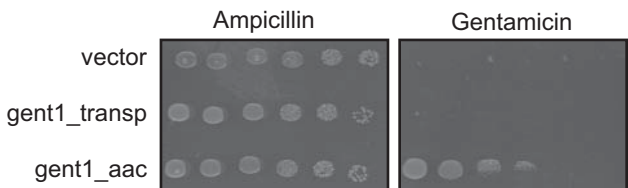


Supplementary Figure 1

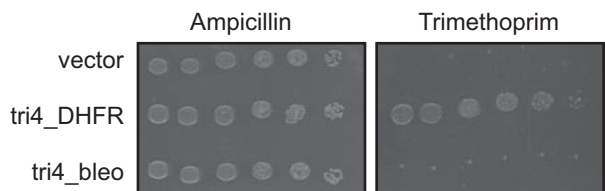
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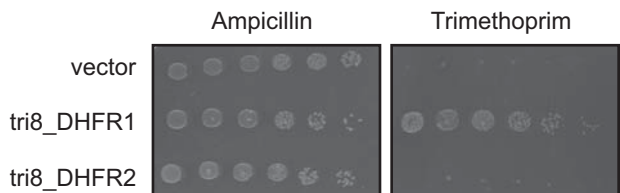
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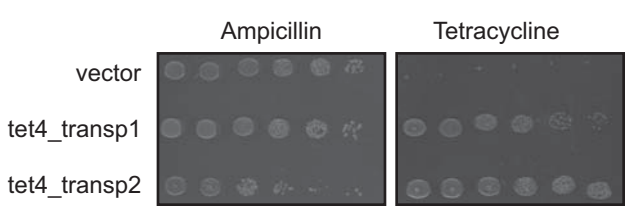
D



E



F



Supplementary Figure 2

A



B

	kan1_aac	kan2_aac	kan3_aac	kan4_aac	gent1_aac
kan1_aac	-				
kan2_aac	27%	-			
kan3_aac	26%	31%	-		
kan4_aac	27%	30%	92%	-	
gent1_aac	12%	14%	16%	14%	-

Supplementary Figure 3

	Q53CM2	Z58IZ0	B5WYT8	B7VER9	B7VES0	B0FMU1	Q79D79	Q1HVJ4	C5MRP4
tri14_DHFR	23%	24%	24%	23%	24%	22%	23%	24%	23%

Supplementary Figure 4

A

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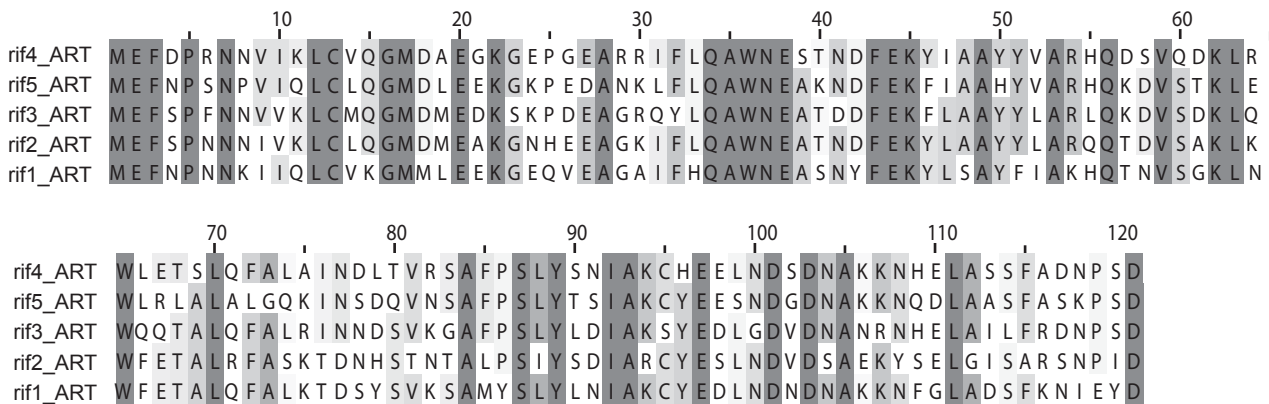
      20           30           40           50           60           70
tri2_DHFR  H P F K A I A A M S E N R V I G R G N S I P W H L P E D F K W F K K M T T G - - - - - N T V V M G R K T F Q S
tri16_DHFR K H F K A I A A M A E N R V I G N G K A I P W H L P E D F K W F K R M T T G - - - - - Q V V V M G R K T F E S
tri1_DHFR  M R I S L V V A F D R E R A I G V D N R L P W H L P D D L K R F K A L T L G - - - - - K P I L M G R L T A E S
tri7_DHFR  I L T L G P V A R D R E G V I G K D G T L P W R L S D D L K R F K A L T L G - - - - - K P V I M G R K T W D S
tri19_DHFR L M I V V A V A Q N - - G V I G R D N Q L L W R L K T D L R R F K D L T W G - - - - - K P M I M G R K T F Q S
tri3_DHFR  M I L S A I V A V S D N D V M A K D G K I P W F V R G E Q L I F K R L T T G - - - - - P P I I M G R K T F E T
tri12_DHFR M V T M I A V A E N N A L G K D N K L L W H L P D D F K R F K K L T T G - - - - - H H I M G R K T F E S
tri17_DHFR M I V S F I V A V S D N N A I G R K N T L P W H L P E D L K F F K R T T I G - - - - - K P V I M G R K T Y E S
tri10_DHFR S R I S L I V A M A K N R V I G A G N K I P W H L P S E L K L F K S L T M G - - - - - H H I V M G R R T Y E S
Ecoli_DHFR M I S L I A A L A V D R V I G M E N A M P W N L P A D L A W F K R N T L N - - - - - K P V I M G R H T W E S
tri13_DHFR M R L S I V A A M D R N R V I G R G G A L P W R L S A D L Q R F K A L T M G - - - - - H H L M M G R K T F E S
tri4_DHFR  M K V T L V A A V A R G G V I G R G N T I P W R I P E D M A R F R V L T T G - - - - - H P V V M G R R T W D S
tri9_DHFR   I G L V W A Q A A N G V I G R D G T L P W Q L P E D L A R F K A L T T G - - - - - A T V V M G R A T W D S
tri8_DHFR  R R I V L V A A V A D N G V I G D G P N I P W H V P G E Q A G F K Q L T M G - - - - - R V L L M G R T T Y E T
tri15_DHFR R R V V L V A A V A R N R V I G D G P D I P W A L P G E Q R L F K E L T L G - - - - - H T L L M G R T T Y E S
tri11_DHFR  R I V L V A A V A E N G V I G A A G G I P W H L P E D F K H F K A T T L G - - - - - H T L V M G R A T Y D S
tri5_DHFR  M T I S L I A A V A R N G V I G S D G Q I P W R L P G E L P R F K A L T T G - - - - - H V L V M G R K T F D S
tri18_DHFR G E R G I M V A M S P E G V I G L E G K I P W H Y R G D L R R V K R L T L G - - - - - T T L I M G R V T W E S
tri6_DHFR  M S I K I I V A Y G R N H E I G Y E N G M P W H L P N E L R W V S K V T R H T T D P Q R R N A I V M G R R T W E S
  
```

B

	tri4_DHFR	tri5_DHFR	tri13_DHFR	!tri14_DHFR	tri19_DHFR
tri4_DHFR	-				
tri5_DHFR	44%	-			
tri13_DHFR	39%	38%	-		
tri14_DHFR	7%	9%	9%	-	
tri19_DHFR	42%	41%	40%	7%	-

Supplementary Figure 5

A



Supplementary Figure 6

