

***Escherichia coli* – *Staphylococcus aureus* Shuttle Vector pCN34, Recombinant in *Escherichia coli***

**Catalog No. NR-46121**

**Product Description:** NR-46121 is a culture of *Escherichia coli* (*E. coli*) DH5α (RN9583, NRS583) containing the *E. coli*-staphylococcal shuttle vector pCN34. Vector pCN34 contains both the *E. coli* ColE1 replication origin and the *Staphylococcus aureus* (*S. aureus*) pT181 *cop-wt-repC* replicon and was deposited as resistant to ampicillin and kanamycin in *E. coli* and resistant to kanamycin in *S. aureus*.

**Lot<sup>1</sup>: 62401827**

**Manufacturing Date: 18APR2014**

| TEST   | SPECIFICATIONS                           | RESULTS   |
|--|--|---|
| <b>Confirmation of pCN36 Sequence</b><br>Illumina <sup>®</sup> MiSeq <sup>®</sup> sequence (Figure 1, Table 1) | Report results                           | Consistent with pCN34 vector description <sup>2,3</sup> |
| <b>Antibiotic Resistance</b><br>Kanamycin (50 µg/mL)<br>Ampicillin (100 µg/mL) <sup>4</sup>                    | Resistant (growth)<br>Resistant (growth) | Growth observed<br>Growth observed                      |
| <b>Viability (post-freeze)<sup>5</sup></b>   | Growth                                   | Growth  |

<sup>1</sup>NR-46121 was produced by inoculation of the deposited material in Luria-Bertani (LB) broth with 50 µg/mL kanamycin and incubated for 21 hours at 37°C in an aerobic atmosphere with shaking (3000 rpm). Broth inoculum was passaged once in LB broth with 50 µg/mL kanamycin for 24 hours at 37°C in an aerobic atmosphere with shaking at 300 rpm to produce this lot.

<sup>2</sup>Illumina<sup>®</sup> MiSeq<sup>®</sup> sequence was analyzed with CLC Genomics Workbench Version 7.0.2.

<sup>3</sup>pCN34 was sequenced and annotated by BEI Resources and is consistent with the vector described in Charpentier et al. "Novel Cassette-Based Shuttle Vector System for Gram-Positive Bacteria." *Appl. Environ. Microbiol.* 70 (2004): 6076-6085. PubMed: 15466553. The BEI Resources vector sequence was deposited into GenBank as pNR-46121 (GenBank: KM015349).

<sup>4</sup>24 hours at 37°C in an aerobic atmosphere on LB agar with 100 µg/mL ampicillin

<sup>5</sup>24 hours at 37°C in an aerobic atmosphere on LB agar with 50 µg/mL kanamycin

**Date:** 27 JUL 2016

**Signature:**



BEI Resources Authentication

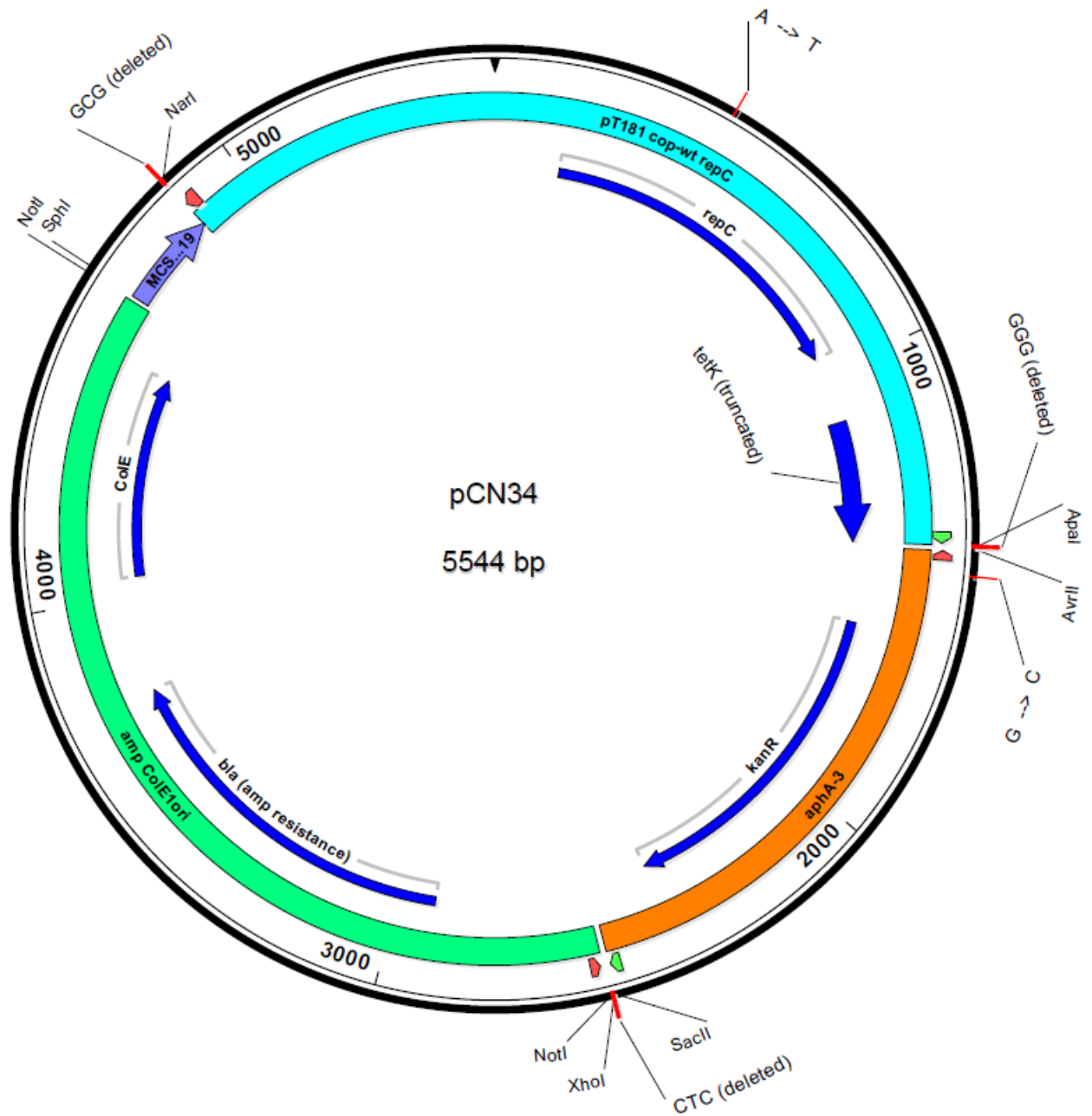
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Figure 1: Shuttle Vector pCN34



**Table 1: Sequence of shuttle vector pCN34**

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121  gtgtgcatat  ctgatccaaa  attaagtttt  gatgcaatga  cgatcgttgg  aaatctcaac
181  cgagacaacg  ctcaagccct  ttctaaatth  atgagtgtag  agccccaat  aagactttgg
241  gatattcttc  aaacaaagtt  taaagctaaa  gcacttcaag  aaaaagttha  tattgaatat
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421  gacggtttta  caagattaga  tttagccttt  gattttgaag  atgatttgag  tgactactat
481  gcaatgtctg  ataaagcagt  taagaaaact  attttttatg  gtcgtaatgg  taagccagaa
541  acaaaatatt  ttggcgtgag  agatagtaat  agatttatta  gaatttataa  taaaagcaa
601  gaacgtaaag  ataatgcaga  tgctgaagtt  atgtctgaac  atttatggcg  tgtagaaatc
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841  ataaaagaaa  tttcgccagt  cgatttaacg  gacttaatga  aatcgacttt  aaaagcgaac
901  gaaaaacaat  tgcaaaaaca  aatcgatttt  tggcaacatg  aatttaaatt  ttggaaatag
961  tgtacatatt  aatattactg  aacaaaaatg  atatatthaa  actattctaa  tttaggagga
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