

Staphylococcus aureus* Fluorescent Reporter Plasmid pSRFPS1, Recombinant in *Staphylococcus aureus

Catalog No. NR-51164

Product Description: NR-51164 is a glycerol stock of *Staphylococcus aureus* (*S. aureus*), strain RN4220 containing the DsRed.T3(DNT) red fluorescent protein (RFP) reporter plasmid pSRFPS1, a derivative of the *Escherichia coli* (*E. coli*) - staphylococcal shuttle vector pKK30.

Lot¹: 70010750

Manufacturing Date: 22NOV2017

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) Hemolysis ³ Biochemical characterization Catalase VITEK [®] MS (MALDI-TOF)	Gram-positive cocci Report results Report results Report results Positive <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and cream to pink (Figure 1) Non-motile β-hemolytic Positive <i>S. aureus</i> (99.9%)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 770 base pairs)	≥ 99% sequence identity to <i>S. aureus</i> , strain RN4220 (GenBank: AFGU01000017.1)	100% sequence identity to <i>S. aureus</i> , strain RN4220 (GenBank: AFGU01000017.1)
Confirmation of pSRFPS1 plasmid	Report results	Consistent with pSRFPS1 plasmid description (Figure 2, Table 1) ^{4,5}
Functional Activity of Antibiotic Resistance Gene in <i>S. aureus</i> Trimethoprim ²	Growth	Growth
Purity (post-freeze)⁶	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-51164 was produced by inoculation of the deposited material in Tryptic Soy broth containing 10 µg/mL trimethoprim and incubated for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was used to inoculate Tryptic Soy agar with 10 µg/mL trimethoprim kolles, which were grown for 1 day at 37°C in an aerobic atmosphere to produce this lot.

²1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 10 µg/mL trimethoprim

³1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood.

⁴Illumina[®] MiSeq[®] sequence was analyzed with CLC Genomics Workbench Version 7.0.2.

⁵pSRFPS1 was sequenced and annotated by BEI Resources and is consistent with the vector described in Rodriguez, M. D., et al. "Construction of Stable Fluorescent Reporter Plasmids for Use in *Staphylococcus aureus*." *Front. Microbiol.* 8 (2017): 2491. PubMed: 29312199.

⁶Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO₂ on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



Figure 2: Fluorescent Report Plasmid pSRFPS1

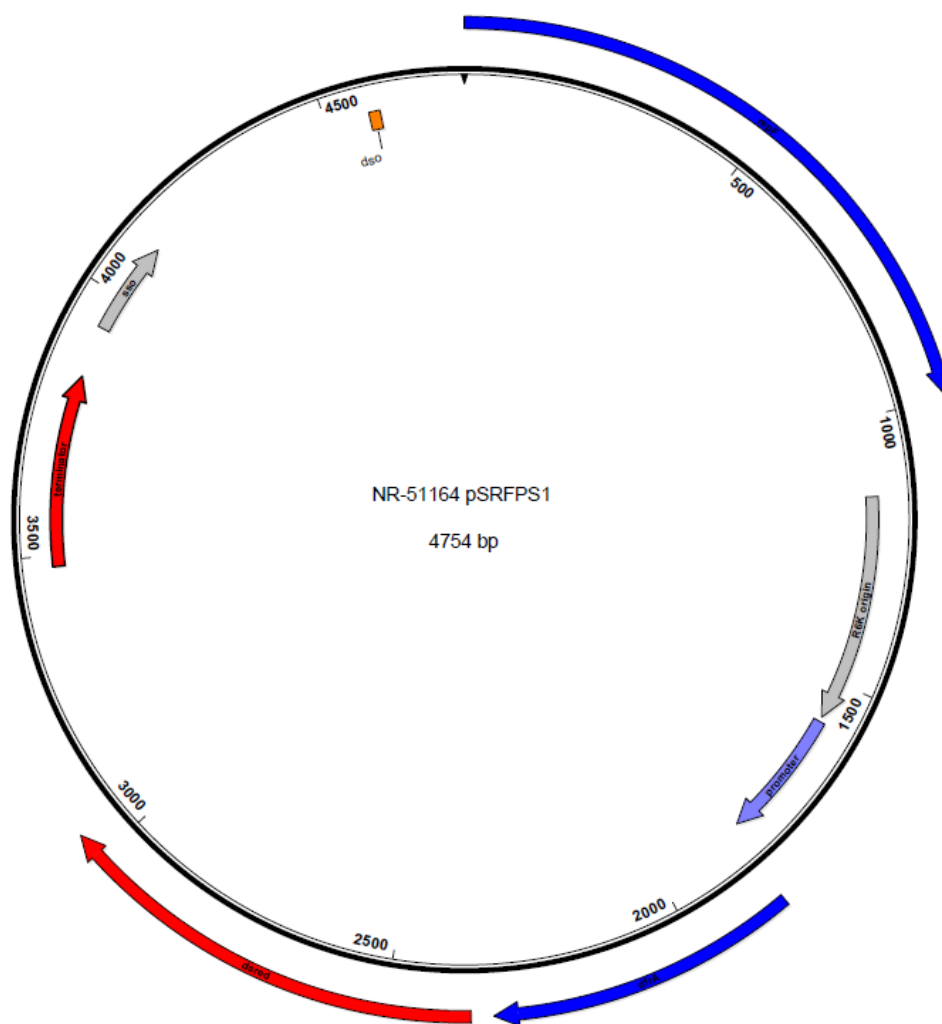


Table 1: Sequence of pSRFPS1

1	ATGCAATATA	ATACTACTAG	AAGTATAACC	GAAAATCAAG	ATAATAAAAC	GTTAAAAGAT
61	ATGACGAAAA	GTGGGAAACA	ACGCCCATGG	AGAGAAAAAG	AAATAGATAA	TGTAAGCTAT
121	GCAGATATAC	TAGAAATTTT	AAAAATCAAA	AAGGCTTTTA	ATGTAAAACA	ATGTGGTAAT
181	ATTTTAGAAT	TTAAGCCAAC	TGATGAAGGC	TATTTGAAGT	TACATAAGAC	ATGGTTTTGT
241	AAATCAAAAT	TATGTCCGGT	TTGTAATTGG	AGACGTGCTA	TGAAAAATAG	TTATCAAGCT
301	CAAAAAGTGA	TTGAAAAAGT	AATTAAGGAA	AAGCCAAAAG	CACGTTGGTT	GTTTTTAACA
361	CTTTCAACAA	AAAATGCGAT	AGATGGAGAT	ACTTTAGAAC	AAAGTTTGAA	GCATCTAACT
421	AAAGCATTTG	ATAGGTTGAG	TAGATATAAA	AAGGTTAAAC	AAAATCTTGT	TGGATTTATG
481	CGTTCAACAG	AAGTTACCGT	TAATAAAAAAT	GACGGTAGTT	ATAATCAGCA	CATGCATGTT
541	TTGTTATGTG	TTGAAAATGC	ATATTTTAGA	AAAAAAGAGA	ATTATATAAC	TCAAGAAGAA
601	TGGGTTAATT	TATGGCAAAG	AGCATTACAA	GTTGACTATC	GACCTGTTGC	TAATGTTAAA
661	GCGATCAAAC	CGAATAGAAA	AGGCGATAAA	GACATTGAAT	CGGCAATCAA	AGAGACCTCA
721	AAATATTCGG	TTAAATCATC	TGATTTTTTTA	ACTGATGATG	ATGAAAAAAA	TCAAGAAATT
781	GTAAGTGATT	TAGAAAAAGG	TTTGTATCGA	AAACGTATGT	TAAGTTATGG	TGGATTGCTT
841	AAACAAAAAC	ATAAAATTTT	AAACTTAGAC	GATGTCGAAG	ATGGTAATTT	GATTAATGCA
901	AGTGATGAAG	ATAAAACAAC	AGACGAAGAA	GAAAAAGCAC	ATTCAATTAC	CGCAATTTGG
961	AATTTTCGAAA	AGCAAAATTA	TTATTTAAGA	CATTAGTGTT	GACTAATGTC	TTTTTTGTTG
1021	ATTTTTTATA	AAAAAGTACT	GTCTTATTTT	TGTGACAAAT	GCTGTATGTA	GTGTCACAAA
1081	AATAAGACAA	ACGCAATATA	TTGTGTCACA	AAAAAAGAC	AGTACAGCTT	TGTATGATCC
1141	GTCGACGAAA	GCCTGGCCAC	GATGCGTCCG	GCGTAGAGGA	TCTGAAGATC	AGCAGTTCAA
1201	CCTGTTGATA	GTACGTACTA	AGCTCTCATG	TTTCACGTAC	TAAGCTCTCA	TGTTTAAACGT
1261	ACTAAGCTCT	CATGTTTAAAC	GAACTAAACC	CTCATGGCTA	ACGTAATAAG	CTCTCATGGC
1321	TAACGTAATA	AGCTCTCATG	TTTCACGTAC	TAAGCTCTCA	TGTTTGAACA	ATAAAATTTA
1381	TATAAATCAG	CAACTTAAAT	AGCCTCTAAG	GTTTTAAGTT	TTATAAGAAA	AAAAAGAATA
1441	TATAAGGCTT	TTAAAGCTTT	TAAGGTTTAA	CGTTTGTGGA	CAACAAGCCA	GGGATGTAAC
1501	GCACTGAGAA	GCCCTTAGAG	CCTCTCAAAG	CAATTTTGAG	TGACACAGGA	ACACTTAACG
1561	GCTGACATGG	GAATTCGAGC	TGATATTTTT	GACTAAACCA	AATGCTAACC	CAGAAATACA
1621	ATCACTGTGT	CTAATGAATA	ATTTGTTTTA	TAAACACTTT	TTTGTTTACT	TCTCATTTTT
1681	AATTAGTTAT	AATTAACTAA	ATAATAGAGC	ATTAATATAA	TTTAATAAAA	CTTATTTAAT
1741	GCAAAATTAT	GACTAACATA	TCTATAATAA	ATAAAGATTA	GATATCAATA	TATTATCGGG
1801	CAAATGTATC	GAGCAAGATG	CATCGGATCG	ATCCAGGAGG	TATACCATGA	CATTATCAAT
1861	AATTGTCGCT	CACGATAAAC	AAAGAGTCAT	TGGGTACCAA	AATCAATTAC	CTTGGCACTT
1921	ACCAAATGAT	TTAAAGCATA	TTAAACAAC	GACCACTGGG	AATCACTTGG	TAATGGCAGC
1981	GAAAACCTTT	AATTCTATAG	GGAAGCCATT	GCCAAATAGA	CGTAACGTCG	TACTCACTAA
2041	CCAAGCTTCA	TTTCGCCATG	AAGGGGTAGA	TGTTATAAAC	TCTCTTGATG	AAATTAAGA
2101	GTTATCTGGT	CATGTTTTTTA	TATTTGGAGG	ACAAACGTTA	TACGAAGCAA	TGATTGACCA
2161	GGTAGATGAT	ATGTATATCA	CAGTAATAGA	TGGAAAAGTTT	CAAGGAGACA	CATTCTTTCC
2221	ACCATACACA	TTCGAAAAC	GGGAAGTCGA	ATCTTCAGTA	GAAGGTCAAC	TAGATGAAAA
2281	AAATACTATA	CCGCATACAT	TCTTACATTT	AGTGCGTAGA	AAAGGGAAAT	AGGCGCGCCT
2341	GATTAACCTT	ATAAGGAGGA	AAAACATATG	GATAATACAG	AAGATGTTAT	TAAAGAATTT
2401	ATGCGTTTTA	AAGTTCGTAT	GGAAGGTTCA	GTTAATGGTC	ATGAATTTGA	AATTGAAGGT
2461	GAAGGTGAAG	GACGTCCATA	TGAAGGTACA	CAAACAGCAA	AATTAAAAGT	TACAAAAGGT
2521	GGTCCATTAC	CATTTGCATG	GGATATTTTA	TCACCACAAT	TTCAATATGG	TTCAAAAAGTT
2581	TATGTTAAAC	ATCCAGCAGA	TATTCCAGAT	TATAAGAAAT	TATCATTTCC	TGAAGGTTTT
2641	AAATGGGAAC	GTGTTATGAA	TTTTGAAGAT	GGTGGTGTTG	TTACAGTTAC	ACAAGATTCA
2701	TCATTACAAG	ATGGTTGTTT	TATCTATAAA	GTTAAATTTA	TTGGTGTTAA	TTTTCCATCA
2761	GATGGTCCAG	TTATGCAAAA	GAAAACAATG	GGTTGGGAAC	CATCAACAGA	ACGTTTATAT
2821	CCACGTGATG	GTGTTTTAAA	AGGTGAAATT	CATAAAGCAT	TGAAATTTAA	AGATGGTGGT
2881	CATTATTTAG	TTGAATTTAA	ATCAATTTAT	ATGGCAAAAA	AACCAGTTCA	ATTACCAGGT
2941	TATTATTATG	TTGATTCAAA	ATTAGATATT	ACATCACATA	ATGAAGATTA	TACAATTGTT
3001	GAACAATATG	AACGTACAGA	AGGTCGTCAT	CATTTGTTTT	TATAAGGCGC	GCCTATTCTA
3061	ATGCATAATA	AATACTGATA	ACATCTTATA	TTTTGTATTA	TATTTTGAT	TATCGTTGAC
3121	ATGTATAAAT	TTGATATCAA	AAACTGATTT	TCCCTCTATT	ATTTTCGAGA	TTTTATTTCT

3181 TAATTCTCTT TAACAAACTA GAAATATTGT ATATACAAAA AATTATAAAT AATAGATGAA
 3241 TAGTTTAATT ATAGGTGTTC ATCAATCGAA AAAGCAACGT ATCTTATTTA AAGTGCGTTG
 3301 CTTTTTCTC ATTTATAAGG TTAAATAAAT CTCATATATC AAGCAAAGTG ACAGGCGATG
 3361 CGGCCGCTAG CCTAGGAGCT CGGTACCCGG GGATCCGAAT CATGAATTAC AAGCAAAAAGT
 3421 AGCGGTGATT GTTAAAATTG ATGGTAAACA ATCACCGCTA TTTTTGCTTG TGTATGTATA
 3481 AAAAAGGGAT CAAAGGTCAT CCCCCATGAT TGATAGTGGG GGGATGACTT TTGATCCTAT
 3541 GTTCATGTTG CTTATTTAAT CGCCTTTGAT CACTTTAAAA TACCTTAAAA CCCCTGGAAT
 3601 TTCTGGCTTT GCCAGACCTA TCATTTTTGA ATGATAGCAA ATTCTCCTTA TGCTCTTACG
 3661 GAGTTTTTAG AGAAAAATTA AAAATTCTCG ATTTTTGATA AAAAACGCCC TGCAGGAATT
 3721 TAGAAAAACA TGTGGAAGTT TTAAAGGATT TTATGCTAAT TTTTAATTTG CATGTAACCTC
 3781 GAGGGGAATA TTTGAGGGGA TTTTGAAACG AGTTTCTTCT TGTTTTTACA CTGTTTTTTTT
 3841 ATTCTTATTG GTGTTGTTGC TTACTTTTTG TTTTTCTATA AAGATGATGC TTTTGACGAG
 3901 ATGGAAGAAA AATATGATTA TCATGAAGAT AATAAAAAAT AGACGACGCA TTTATGCCGA
 3961 GAAAATTTAT TGATGTTGAG AAGAACCCTT AACTAAACTT GCAGACGAAT GTCGGCATAG
 4021 CGTGAGCTAT TAAGCCGACC ATTCGACAAG TTTTGGGATT GTTAAGGGTT CCGAGGCTCA
 4081 ACGTCAATAA AGCAATTGGA ATAAATAGTA TCTAAAGTAA CCCGTATTTA AGATTACATT
 4141 GTACATCCTT CGAAACCATA GTAGCTGCGA TTCCAGCTAG GTTTCCTTTT ATCCCAATTT
 4201 TAGCTAATTT TTTTGCTACG CCCTTTAAGT TTTTGGCTTT AACATCTTCA AAAACTGCTG
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 4381 TATTCTCTAT GTCGTTTTTT AGTTTTTGA ATCCTTCAGG AACATATCCA TATCGAGATT
 4441 TGGCCGATTT TATTTGATAA TCCTTTTGAC TTTTGTAGAAA GTTTTATTTA TTCATTGGTT
 4501 TTCACATTAA TTTATTTAGG TTTAGAGGGT CATAAAAAAGA AGAAGGAATA GGTTGTTTTT
 4561 TGAAACGAGT GTGAACGAGT TTCTTCTTGT CTTGATACTA TATAGAAATA ACTCGATTTT
 4621 ATATATATAG CTGTAACCTG TGATATTACA GTGTTTAAAC GTGTTTTTGT GCGTGAAAGG
 4681 AAAATTTGAC AATAAAAAAC CCCAGTTATA TTATTAAGGT GTCGAATCTT AAATAATACT
 4741 GGGGTCTTT TTAT

17 APR 2018

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