

File S2

DNA sequence of transgenesis vectors

Note: the pDSAx vector series carries kanamycin resistance.

pDSAG (GFP):

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LOCUS       pDSAG                      5143 bp      DNA      circular
FEATURES             Location/Qualifiers
     misc_feature   complement(3258..3353)
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     misc_feature   600..1174
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     misc_feature   590..608
                     /note="M13R"
     misc_feature   625..644
                     /note="T3"
     misc_feature   677..696
                     /note="SK primer"
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     misc_feature   1395..1621
                     /note="SV40 term"
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                     /note="attB"
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 241  TAGCATGGAT GTTTTCCCAG TCACGACGTT GTAAAACGAC GGCCAGTCTT AAGCTCGGGC
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 361  TTACAGTATT ATGTAGTCTG TTTTTTATGC AAAATCTAAT TTAATATATT GATATTTATA
 421  TCATTTTACG TTTCTCGTTC AACTTTTCTA TACAAAGTTg gtACcggatc cagagaccCG
 481  CAACGCAATT AATGTGAGTT AGCTCACTCA TTAGGCACCC CAGGCTTTAC ACTTTATGCT
 541  TCCGGCTCGT ATGTTGTGTG GAATTGTGAG CGGATAACAA TTTCACACAG GAAACAGCTA
 601  TGACCATGAT TACGCCAAGC GCGCAATTAA CCTCACTAA AGGGAACAAA AGCTGGAGCT
 661  CCACCGCGGT GGCGGCCGCT CTAGAACTAG TGGATCCCC GGGCTGCAGG AATTTCGATAT
 721  CAAGCTTATC GATACCGTCC ACCTCGAGGG GGGGCCCGGT ACCCAATTCG CCCTATAGTG
 781  AGTCGTATTA CGCGCGCTCA CTGGCCGTCG TTTTACAACG TCGTGACTGG GAAAACCCTG
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pDSAT (mTurquoise2):

LOCUS	pDSAT	5147 bp	DNA	circular
FEATURES	Location/Qualifiers			
misc_feature	complement(3408..3426) /note="M13R"			
misc_feature	1972..2021 /note="3x Pax6 binding sites"			
misc_feature	2061..2068 /note="TATA"			
misc_feature	271..286 /note="M13F"			
misc_feature	600..1174 /note="LacZ"			
misc_feature	479..599 /note="lac promoter"			
misc_feature	590..608 /note="M13R"			
misc_feature	625..644 /note="T3"			
misc_feature	677..696 /note="SK primer"			
misc_feature	complement(731..747) /note="KS primer"			
misc_feature	complement(800..816) /note="M13F"			
misc_feature	complement(771..790) /note="T7"			
misc_feature	1395..1621 /note="SV40 term"			
misc_feature	1622..1898 /note="attB"			
misc_feature	2977..3198 /note="SV40 term"			
misc_feature	2232..2948 /note="mTurquoise2"			
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ORIGIN

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pDSAY (YFP):

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LOCUS      pDSAY          5145 bp      DNA      circular
FEATURES             Location/Qualifiers
  misc_feature       complement(3406..3424)
                     /note="M13R"
  misc_feature       271..286
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  misc_feature       1395..1621
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  misc_feature       1972..2021
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  misc_feature       2955..3198
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ORIGIN

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  121  GCGCCCAATA CGCAAACCGC CTCTCCCCGC GCGTTGGCCG ATTCA'TTAAT GCAGCTGGCA
  181  CGACAGGTTT CCCGACTGGA AAGCGGGCAG TGAGCGCAAC GCAATTAATA CGCGTACCGC
  241  TAGCATGGAT G'TTTTCCCAG TCACGACGTT GTAAAACGAC GGCCAGTCTT AAGTCGGGC
  301  CCCTACAGGT CACTAATACC ATCTAAGTAG TTGATTCATA GTGACTGGAT ATGTTGTGTT
  361  TTACAGTATT ATGTAGTCTG TTTTTTATGC AAAATCTAAT TTAATATATT GATATTTATA
  421  TCATTTTACG TTTCTCGTTC AACTTTTCTA TACAAAGTTg gtACcggatc cagagaccCG
  481  CAACGCAAT' AATGTGAGTT AGCTCACTCA TTAGGCACCC CAGGCTTTAC ACTTTATGCT
  541  TCCGGCTCGT ATGTTGTGTG GAAT'TGTGAG CGGATAACAA TTTACACAG GAAACAGCTA
  601  TGACCATGAT TACGCCAAGC GCGCAATTAA CCTCACTAA AGGGAACAAA AGCTGGAGCT
  661  CCACCGCGGT GGCGGCCGCT CTAGAACTAG TGGATCCCCC GGGCTGCAGG AATTCGATAT
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961 CGCCC GTAG CGGCGCATTAG AGCGCGGCGG GTGTGGTGGT TACGCGCAGC GTGACCGCTA
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5101 CTTTTTACGG TTCTTGGCCT TTTGCTGGCC TTTTGCTCAC ATGTT

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pDSAR (DsRed2):

LOCUS pDSAR 5103 bp DNA linear 17-JAN-2013

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	/note="M13F"
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ORIGIN

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121 GCGCCCAATA CGCAAACCGC CTCTCCCCGC GCGTTGGCCG ATTCA'TTAAT GCAGCTGGCA
181 CGACAGGTTT CCCGACTGGA AAGCGGGCAG TGAGCGCAAC GCAATTAATA CGCGTACCGC
241 TAGCATGGAT GTTTTCCCAG TCACGACGTT GTAAAACGAC GGCCAGTCTT AAGCTCGGGC
301 CCCTACAGGT CACTAATACC ATCTAAGTAG TTGATTCATA GTGACTGGAT ATGTTGTGTT
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421 TCATTTTACG TTTCTCGTTC AACTTTTCTA TACAAAGTTg gtACcggatc cagagaccCG
481 CAACGCAATT AATGTGAGTT AGCTCACTCA TTAGGCACCC CAGGCTTTAC ACTTTATGCT
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601 TGACCATGAT TACGCCAAGC GCGCAATTAA CCTCACTAA AGGGAACAAA AGCTGGAGCT
661 CCACCGCGGT GGCGGCCGCT CTAGAACTAG TGGATCCCC GGGCTGCAGG AATTCGATAT
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781 AGTCTGATTA CGCGCGTCA CTGGCCGTCG TTTTACAACG TCGTGCATGG GAAAACCTTG
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 1921 TCGCGTTTGT TTGATCGCAC GGTTCACACA ATGGTTAATT CGAGCTCGCC CGGGGATCTA
 1981 ATTCAATTAG AGACTAATTC AATTAGAGCT AATTCAATTA GGATCCAAGC TTATCGATTT
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pDSAP (puromycin resistance):

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 4381 AAAGAAATGC ATAAACTTTT GCCATTTCTA CCGGATTCAG TCGTCACTCA TGGTGATTTT
 4441 TCACTTGATA ACCTTATTTT TGACGAGGGG AAATTAATAG GTTGTATTGA TGTGGACGA
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 4561 TCTCCTTCAT TACAGAAACG GCTTTTTTCAA AAATATGGTA TTGATAATCC TGATATGAAT
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 4681 TAACACTGGC AGAGCATTAC GCTGACTTGA CGGGACGGCG CAAGCTCATG ACCAAAATCC

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4741 CTTAACGTGA GTTACGCGTC GTTCCACTGA GCGTCAGACC CCGTAGAAAA GATCAAAGGA
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4861 CTACCAGCGG TGGTTTGTTC GCCGGATCAA GAGCTACCAA CTCTTTTTTC GAAGGTAAC
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5341 TGACTTGAGC GTCGATTTTT GTGATGCTCG TCAGGGGGGC GGAGCCTATG GAAAAACGCC
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pDSAYN (YFPnls):

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  misc_feature       2061..2068
                     /note="TATA"
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                     /note="T7"
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ORIGIN

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121 GCGCCCAATA CGCAAACCGC CTCTCCCCCG GCGTTGGCCG ATTCATTAAT GCAGCTGGCA
181 CGACAGGTTT CCCGACTGGA AAGCGGGCAG TGAGCGCAAC GCAATTAATA CGCGTACCGC
241 TAGCATGGAT GTTTTCCAG TCACGACGTT GTAAAACGAC GGCCAGTCTT AAGCTCGGGC
301 CCCTACAGGT CACTAATACC ATCTAAGTAG TTGATT CATA GTGACTGGAT ATGTTGTGTT
361 TTACAGTATT ATGTAGTCTG TTTTTTATGC AAAATCTAAT TTAATATATT GATATTTATA
421 TCATTTTACG TTTCTCGTTC AACTTTTCTA TACAAAGTTg gtACcggatc cagagaccCG
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661 CCACCGCGGT GCGGCGCGCT CTAGAACTAG TGGATCCCC GGGCTGCAGG AATTTCGATAT
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841 GCGTTACCCA ACTTAATCGC CTTGCAACAC ATCCCCCTTT CGCCAGCTGG CGTAATAGCG
901 AAGAGGCCCG CACCGATCGC CCTCCAGACC AGTTGCGCAG CCGTAATGGC GAATGGGACG
961 CGCCCTGTAG CGGCGCATTA AGCGCGGCGG GTGTGGTGGT TACGCGCAGC GTGACCGCTA
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1261 TCTTGTTC CA AACTGGAACA ACAC TCAACG CTATCTCGGT CTATTCCTTT GATTTATAAG
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1861 GGGCAGCGTC AGCGGGTTCT CGACGGTCA GCGGGCAat tCCTGCAGAC TTCCGGTATC
1921 TCGCTTTGT TTGATCGCAC GGTTCACACA ATGGTTAATT CGAGCTCGCC CGGGGATCTA
1981 ATTCAATTAG AGACTAATTC AATTAGAGCT AATTCAATTA GGATCCAAGC TTATCGATTT
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2101 TCAAACAAGC AAAGTGAACA CGTCGCTAAG CGAAAGCTAA GCAAATAAAC AAGCGCAGCT
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3241 atcgatacgc GTACGTacgG CGCGCCTAGA GCGGCCGCCA CCGCGGTGGA GCTCGAGTAC
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3481 CGTGTCTCAA AATCTCTGAT GTTACATTCG ACAAGATAAA AATATATCAT CATGAACAAT
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3601 AACGTCGAGG CCGCGATTAA ATTCCAACAT GGATGCTGAT TTATATGGGT ATAAATGGGC
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3721 GCCAGAGTTA TTTCTGAAAC ATGGCAAAGC TAGCGTTGCC AATGATGTTA CATAGTAGAT
3781 GGTAGACTA AAC TGGCTGA CGGAATTTAT GCTCTTCCG ACCATCAAGC ATTTTATCCG
3841 TACTCCTGAT GATGCATGGT TACTCACCAC TGCGATCCCC GGAAAAACAG CATTCAGGT

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4021 CGCTCAGGCG CAATCACGAA TGAATAACGG TTTGGTTGAT GCGAGTGATT TTGATGACGA
4081 GCGTAATGGC TGGCC TGTTG AACAAAGTCTG GAAAGAAATG CATAAACTTT TGCCATTCTC
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pDSARN (DsRed2NLS):

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     misc_feature      2061..2068
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ORIGIN

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3781 GCCAGAGTTG TTTCTGAAAC ATGGCAAAGG TAGCGTTGCC AATGATGTTA CAGATGAGAT
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3901 TACTCCTGAT GATGCATGGT TACTCACCAC TCGCATCCCC GGAAAAACAG CATTCCAGGT
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4021 CCGGTTGCAT TCGATTCC'TG TTTGTAATTG TCCTTTTAAAC AGCGATCGCG TATTTCTGCT
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4201 ACCGGATTCA GTCGTCAC'TC ATGGTGATTT CTCAC'TTGAT AACCTTATTT TTGACGAGGG
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5221 CTTTTGCTGG CTTTTTGCTC ACATGTT

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pattB-RfB2 (ampicillin resistant attB site-containing vector for docking site-based transgenesis, compatible with Gateway and Multisite Gateway cloning. Transform a *ccdB* resistant *E. coli* strain!)

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LOCUS      pattB-RfB2                4884 bp      DNA      circular
FEATURES             Location/Qualifiers
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pXLtTloxattPGat2 (ampicillin resistant *piggyBac* transgenesis vector with transposase in backbone and Gateway cloning cassette. Ampicillin resistant):

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                     /note="Gateway cassette"
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121 GATAGGGTTG AGTGTGTGTC CAGTTTGGAA CAAGAGTCCA CTATTAAGA  ACGTGGACTC
181 CAACGTCAA  GGGCGAAAAA CCGTCTATCA GGGCGATGGC CCACTACGTG AACCATCACC
241 CTAATCAAGT TTTTGGGGT  CGAGGTGCCG TAAAGCACTA AATCGGAACC CTAAAGGGAG
301 CCCCCGATTT AGAGCTTGAC GGGGAAAGCC TCGACGGATC CAAATTC AACCAATTTA
361 TGTTTATTTA TTTATTAATA AAAACAATA  ACTCAAATTT TCTTCTATAA AGTAACAAAA

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421 CTTTTAAACA TTCTCTCCTT TACAAAAATA AACTTATTTT GTACTTTTAAA AACAGTCATG
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541 TAGTCAGTCA GAAACAACCTT TGGCACATAT CAATATTATG CTCTCGACAA ATAACCTTTTT
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pENTR R4-vas2-integrase-R3 (helper plasmid expressing phage ΦC31 integrase under the control of the vasa promoter). Kanamycin resistant

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pENTR R4-vas2-Transposase-R3 (helper plasmid expressing *piggyBac* transposase under the control of the vasa promoter). Kanamycin resistant

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pENTR L1-vas2-Cre-L4 (helper plasmid expressing *Cre recombinase* under the control of the vasa promoter). Kanamycin resistant

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                  /note="HA epitope"
misc_feature      3166..4248
                  /note="Cre ORF"

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ORIGIN

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121  GCGCCCAATA CGCAAACCGC CTCTCCCCGC GCGTTGGCCG ATTCA'TTAAT GCAGCTGGCA
181  CGACAGGTTT CCCGACTGGA AAGCGGGCAG TGAGCGCAAC GCAATTAATA CGCGTACCGC
241  TAGCCAGGAA GAGTTTGTAG AAACGCAAAA AGGCCATCCG TCAGGATGGC CTCTGCTTA
301  GTTTGATGCC TGGCAGTTTA TGGCGGGCGT CCTGCCCCGC ACCCTCCGGG CCGTTGCTTC
361  ACAACGTTCA AATCCGCTCC CGGCGGATTT GTCCTACTCA GGAGAGCGTT CACCGACAAA
421  CAACAGATAA AACGAAAGGC CCAGTCTTCC GACTGAGCCT TTCGTTTTAT TTGATGCCTG
481  GCAGTTCCTT ACTCTCGCGT TAACGCTAGC ATGGATGTTT TCCCAGTCAC GACGTTGTAA
541  AACGACGGCC AGTCTTAAGC TCGGGCCCCA AATAATGATT TTATTTTGAC TGATAGTGAC
601  CTGTTTCGTTG CAACAAATG ATGAGCAATG CTTTTTTATA ATGCCAACTT TGTACAAAAA
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pDSAR-Cre-F2A-IsceI (transgenesis plasmid that produced the C2S transgenic line, expressing Cre and I-SceI)

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