

pSAT1-cEYFP-C1-B

| | | | | | |
|-----|------------|-------------------|-------------------|------------|-------------|
| 1 | TCGCGCGTTT | CGGTGATGAC | GGTAAAAACC | TCTGACACAT | GCAGCTCCCG |
| | AGCGCGCAAA | GCCACTACTG | CCACTTTTTGG | AGACTGTGTA | CGTCGAGGGC |
| 51 | GAGACGGTCA | CAGCTTGTCT | GTAAGCGGAT | GCCGGGAGCA | GACAAGCCCC |
| | CTCTGCCAGT | GTCGAACAGA | CATTTCGCTA | CGGCCCTCGT | CTGTTCGGGC |
| 101 | TCAGGGCGCG | TCAGCGGGTG | TTGGCGGGTG | TCGGGGCTGG | CTTAACTATG |
| | AGTCCCAGCG | AGTCGCCAC | AACCGCCCAC | AGCCCCGACC | GAATTGATAC |
| 151 | CGGCATCAGA | GCAGATTGTA | CTGAGAGTGC | ACCATATGCG | GTGTGAAATA |
| | GCCGTAGTCT | CGTCTAACAT | GACTCTCACG | TGGTATACGC | CACACTTTAT |
| 201 | CCGCACAGAT | GCGTAAGGAG | AAAATACCGC | ATCAGGCGCC | ATTTCGCCATT |
| | GCGGTGTCTA | CGCATTCCTC | TTTTATGGCG | TAGTCCGCGG | TAAGCGGTAA |
| 251 | CAGGCTGCGC | AACTGTTGGG | AAGGGCGATC | GGTGCGGGCC | TCTTCGCTAT |
| | GTCCGACGCG | TTGACAACCC | TTCCCGCTAG | CCACGCCCGG | AGAAGCGATA |
| 301 | TACGCCAGCT | GCGAAAAGGG | GGATGTGCTG | CAAGGCGATT | AAGTTGGGTA |
| | ATGCGGTCGA | CCGCTTTCCC | CCTACACGAC | GTTCCGCTAA | TTCAACCCAT |
| 351 | ACGCCAGGGT | TTTCCCAGTC | ACGACGTTGT | AAAACGACGG | CCAGTGCCGG |
| | TGCGGTCCCA | AAAGGGTCAG | TGCTGCAACA | TTTTGCTGCC | GGTCACGGCC |
| | Ascl | | CaMV 35S promoter | | Ascl |
| 401 | CGCGCCACCG | GTCAACATGT | GGAGCACGAC | ACACTTGTCT | ACTCCAAAAA |
| | GCGCGGTGGC | CAGTTGTACA | CCTCGTGCTG | TGTGAACAGA | TGAGGTTTTT |
| | | CaMV 35S promoter | | | |
| 451 | TATCAAAGAT | ACAGTCTCAG | AAGACCAAAG | GGCAATTGAG | ACTTTTCAAC |
| | ATAGTTTCTA | TGTCAGAGTC | TTCTGGTTTC | CCGTAACTC | TGAAAAGTTG |
| | | CaMV 35S promoter | | | |
| 501 | AAAGGGTAAT | ATCCGAAAAC | CTCCTCGGAT | TCCATTGCCC | AGCTATCTGT |
| | TTTCCCATTA | TAGGCCTTTG | GAGGAGCCTA | AGGTAACGGG | TCGATAGACA |
| | | BspEI | | | |
| 551 | CACTTTATTG | TGAAGATAGT | GGAAAAGGAA | GGTGGCTCCT | ACAAATGCCA |
| | GTGAAATAAC | ACTTCTATCA | CCTTTTCCTT | CCACCGAGGA | TGTTTACGGT |

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CaMV 35S promoter

601 TCATTGCGAT AAAGGAAAGG CCATCGTTGA AGATGCCTCT GCCGACAGTG
AGTAACGCTA TTTCCTTTCC GGTAGCAACT TCTACGGAGA CGGCTGTCAC

CaMV 35S promoter

651 GTCCCAAAGA TGGACCCCA CCCACGAGGA GCATCGTGGA AAAAGAAGAC
CAGGGTTTCT ACCTGGGGGT GGGTGCTCCT CGTAGCACCT TTTTCTTCTG

CaMV 35S promoter

CaMV 35S promoter

701 GTTCCAACCA CGTCTTCAA GCAAGTGGAT TGATGTGATA ACATGGTGGGA
CAAGTTGGT GCAGAAGTTT CGTTCACCTA ACTACACTAT TGTACCACCT

CaMV 35S promoter

751 GCACGACACA CTTGTCTACT CAAAAATAT CAAAGATACA GTCTCAGAAG
CGTGCTGTGT GAACAGATGA GGTTTTTATA GTTTCTATGT CAGAGTCTTC

CaMV 35S promoter

801 ACCAAAGGGC AATTGAGACT TTTCAACAAA GGGTAATATC CGGAAACCTC
TGGTTTCCCG TTAACTCTGA AAAGTTGTTT CCCATTATAG GCCTTTGGAG

CaMV 35S promoter

851 CTCGGATTCC ATTGCCCAGC TATCTGTCAC TTTATTGTGA AGATAGTGGA
GAGCCTAAGG TAACGGGTCG ATAGACAGTG AAATAACACT TCTATCACCT

CaMV 35S promoter

901 AAAGGAAGGT GGCTCCTACA AATGCCATCA TTGCGATAAA GGAAAGGCCA
TTTCCTTCCA CCGAGGATGT TTACGGTAGT AACGCTATTT CCTTCCGGT

CaMV 35S promoter

951 TCGTTGAAGA TGCCTCTGCC GACAGTGGTC CCAAAGATGG ACCCCACCC
AGCAACTTCT ACGGAGACGG CTGTCACCAG GGTTCCTACC TGGGGTGGG

CaMV 35S promoter

1001 ACGAGGAGCA TCGTGAAAA AGAAGACGTT CCAACCACGT CTTCAAAGCA
TGCTCCTCGT AGCACCTTTT TCTTCTGCAA GGTGGTGCA GAAGTTTCGT

CaMV 35S promoter

1051 AGTGGATTGA TGTGATATCT CCACTGACGT AAGGGATGAC GCACAATCCC
TCACCCTAAGT AACTATAGA GGTGACTGCA TTCCCTACTG CGTGTTAGGG

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1101 ACTATCCTTC GCAAGACCCT TCCTCTATAT AAGGAAGTTC ATTTCAATTTG
TGATAGGAAG CGTTCCTGGGA AGGAGATATA TTCCTTCAAG TAAAGTAAAC

translational enhancer 5'-UTR from tobacco

1151 GAGAGGACGT CGAGAGTTCT CAACACAACA TATACAAAAC AAACGAATCT
CTCTCCTGCA GCTCTCAAGA GTTGTGTTGT ATATGTTTTG TTTGCTTAGA

translational enhancer 5'-UTR from tobacco

1201 CAAGCAATCA AGCATTCTAC TTCTATTGCA GCAATTTAAA TCATTTCTTT
GTTTCGTTAGT TCGTAAGATG AAGATAACGT CGTTAAATTT AGTAAAGAAA

translational enhancer 5'-UTR from tobacco

1251 TAAAGCAAAA GCAATTTTCT GAAAATTTTC ACCATTTACG AACGATAGCC
ATTTTCGTTTT CGTTAAAAGA CTTTTAAAAG TGGTAAATGC TTGCTATCGG

NcoI
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cEYFP

1301 ATGGGCGGCA GCGTGCAGCT CGCCGACCAC TACCAGCAGA ACACCCCAT  
TACCCGCCGT CGCACGTCGA GCGGCTGGTG ATGGTCGCTCT TGTGGGGGTA

NcoI  
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cEYFP

1351 CGGCGACGGC CCCGTGCTGC TGCCCGACAA CCACTACCTG AGCTACCAGT
GCCGCTGCCG GGCACGACG ACGGGCTGTT GGTGATGGAC TCGATGGTCA

cEYFP

1401 CCGCCCTGAG CAAAGACCCC AACGAGAAGC GCGATCACAT GTTCCTGCTG
GGCGGGACTC GTTCTGCGG TTGCTCTTCG CGTAGTGTA CCAGGACGAC

cEYFP

1451 GAGTTCGTGA CCGCCGCCGG GATCACTCTC GGCATGGACG AGCTGTACAA
CTCAAGCACT GGCGGCGGCC CTAGTGAGAG CCGTACCTGC TCGACATGTT

MCS

cEYFP

1501 GTCCGGACTC AGATCTCGAG CTCAAGCTTC GAATTCGCA GTCGACGGTA
CAGGCCTGAG TCTAGAGCTC GAGTTCGAAG CTTAAGACGT CAGCTGCCAT

HindIII ~~~~~
EcoRI ~~~~~
Accl ~~~~~
Sall ~~~~~
XhoI ~~~~~
BspEI ~~~~~
BglII ~~~~~
SacI ~~~~~
PstI ~~~~~
KpnI ~~~~~

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| | BamHI MCS | | CaMV 35S terminator | | |
|------|---------------------|--------------|---------------------|------------|-------------|
| 1551 | SacII Kpn | XmaI SmaI | XbaI | | |
| | CCGCGGGGCC | GGGATCCACC | TGATCTAGAG | TCCGCAAAAA | TCACCAGTCT |
| | GGCGCCCGGG | CCCTAGGTGG | ACTAGATCTC | AGGCGTTTTT | AGTGGTCAGA |
| 1601 | CaMV 35S terminator | | | | |
| | CTCTCTACAA | ATCTATCTCT | CTCTATTTTT | CTCCAGAATA | ATGTGTGAGT |
| | GAGAGATGTT | TAGATAGAGA | GAGATAAAAA | GAGGTCTTAT | TACACACTCA |
| 1651 | CaMV 35S terminator | | | | |
| | AGTTCCCAGA | TAAGGGAATT | AGGGTTCTTA | TAGGGTTTCG | CTCATGTGTT |
| | TCAAGGTCT | ATTCCCTTAA | TCCAAGAAT | ATCCCAAAGC | GAGTACACAA |
| 1701 | CaMV 35S terminator | | | | |
| | GAGCATATAA | GAAACCCTTA | GTATGTATTT | GTATTTGTAA | AATACTTCTA |
| | CTCGTATATT | CTTTGGGAAT | CATACATAAA | CATAAACATT | TTATGAAGAT |
| 1751 | CaMV 35S terminator | | | SacII | Ascl |
| | TCAATAAAAT | TTCTAATTCC | TAAAACCAAA | ATCCAGTGAC | GCGCCGCGG |
| | AGTTATTTTA | AAGATTAAGG | ATTTTGTTTT | TAGGTCACTG | CGCCGCGGCC |
| 1801 | Ascl | | | NotI | |
| | CGCGCCGTAA | TCATGGTCAT | AGCTGTTTCC | TGTGTGAAAT | TGTTATCCGC |
| | GCGCGGCATT | AGTACCAGTA | TCGACAAAGG | ACACACTTTA | ACAATAGGCG |
| 1851 | | | | | |
| | TCACAATTCC | ACACAACATA | CGAGCCGGAA | GCATAAAGTG | TAAAGCCTGG |
| | AGTGTTAAGG | TGTGTTGTAT | GCTCGGCCCT | CGTATTTTAC | ATTTCCGGACC |
| 1901 | | | | | |
| | GGTGCCTAAT | GAGTGAGCTA | ACTCACATTA | ATTGCGTTGC | GCTCACTGCC |
| | CCACGGATTA | CTCACTCGAT | TGAGTGTAAT | TAACGCAACG | CGAGTGACGG |
| 1951 | | | | | |
| | CGCTTTCAG | TCGGGAAACC | TGTCGTGCCA | GCTGCATTAA | TGAATCGGCC |
| | GCGAAAGGTC | AGCCCTTTGG | ACAGCACGGT | CGACGTAATT | ACTTAGCCGG |
| 2001 | | | | | |
| | AACGCGCGGG | GAGAGGCGGT | TTGCGTATTG | GGCGCTCTTC | CGCTTCCTCG |
| | TTGCGCGCCC | CTCTCCGCCA | AACGCATAAC | CCGCGAGAAG | GCGAAGGAGC |
| 2051 | | | | | |
| | CTCACTGACT | CGCTGCGCTC | GGTCGTTCCG | CTGCGGCGAG | CGGTATCAGC |
| | GAGTGACTGA | GCGACGCGAG | CCAGCAAGCC | GACGCCGCTC | GCCATAGTCG |

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| | | | | | |
|------|-------------|-------------|------------|------------|------------|
| 2101 | TCACTCAAAG | GCGGTAATAC | GGTTATCCAC | AGAATCAGGG | GATAACGCAG |
| | AGTGAGTTTC | CGCCATTATG | CCAATAGGTG | TCTTAGTCCC | CTATTGCGTC |
| 2151 | GAAAGAACAT | GTGAGCAAAA | GGCCAGCAAA | AGGCCAGGAA | CCGTAAAAAG |
| | CTTTCTTGTA | CACCTCGTTTT | CCGGTCGTTT | TCCGGTCCTT | GGCATTTTTC |
| 2201 | GCCGCGTTGC | TGGCGTTTTT | CCATAGGCTC | CGCCCCCTG | ACGAGCATCA |
| | CGGCGCAACG | ACCGCAAAAA | GGTATCCGAG | GCGGGGGGAC | TGCTCGTAGT |
| 2251 | CAAAAATCGA | CGCTCAAGTC | AGAGGTGGCG | AAACCCGACA | GGACTATAAA |
| | GTTTTTAGCT | GCGAGTTCAG | TCTCCACCGC | TTTGGGCTGT | CCTGATATTT |
| 2301 | GATACCAGGC | GTTTCCCCCT | GGAAGCTCCC | TCGTGCGCTC | TCCTGTTCCG |
| | CTATGGTCCG | CAAAGGGGGA | CCTTCGAGGG | AGCACGCGAG | AGGACAAGGC |
| 2351 | ACCCTGCCGC | TTACCGGATA | CCTGTCCGCC | TTTCTCCCTT | CGGGAAGCGT |
| | TGGGACGGCG | AATGGCCTAT | GGACAGGCGG | AAAGAGGGAA | GCCCTTCGCA |
| 2401 | GGCGCTTTCT | CAATGCTCAC | GCTGTAGGTA | TCTCAGTTCG | GTGTAGGTCG |
| | CCGCGAAAAG | GTTACGAGTG | CGACATCCAT | AGAGTCAAGC | CACATCCAGC |
| 2451 | TTCGCTCCAA | GCTGGGCTGT | GTGCACGAAC | CCCCCGTTCA | GCCCGACCGC |
| | AAGCGAGGTT | CGACCCGACA | CACGTGCTTG | GGGGGCAAGT | CGGGCTGGCG |
| 2501 | TGCGCCTTAT | CCGGTAACTA | TCGTCTTGAG | TCCAACCCGG | TAAGACACGA |
| | ACGCGGAATA | GGCCATTGAT | AGCAGAACTC | AGGTTGGGCC | ATTCTGTGCT |
| 2551 | CTTATCGCCA | CTGGCAGCAG | CCACTGGTAA | CAGGATTAGC | AGAGCGAGGT |
| | GAATAGCGGT | GACCGTCGTC | GGTGACCATT | GTCCTAATCG | TCTCGCTCCA |
| 2601 | ATGTAGGCGG | TGCTACAGAG | TTCTTGAAGT | GGTGGCCTAA | CTACGGCTAC |
| | TACATCCGCC | ACGATGTCTC | AAGAACTTCA | CCACCGGATT | GATGCCGATG |
| 2651 | ACTAGAAGGA | CAGTATTTGG | TATCTGCGCT | CTGCTGAAGC | CAGTTACCTT |
| | TGATCTTCCT | GTCATAAACC | ATAGACGCGA | GACGACTTCG | GTCAATGGAA |
| 2701 | CGGAAAAAGA | GTTGGTAGCT | CTTGATCCGG | CAAACAAACC | ACCGCTGGTA |
| | GCCTTTTTCT | CAACCATCGA | GAACTAGGCC | GTTTGTTTGG | TGGCGACCAT |
| 2751 | GCGGTGGTTT | TTTTGTTTGC | AAGCAGCAGA | TTACGCGCAG | AAAAAAGGA |
| | CGCCACCAA | AAAACAAACG | TTCGTCTGCT | AATGCGCGTC | TTTTTTTCCT |
| 2801 | TCTCAAGAAG | ATCCTTTGAT | CTTTTCTACG | GGGTCTGACG | CTCAGTGGAA |
| | AGAGTTCTTC | TAGGAAACTA | GAAAAGATGC | CCCAGACTGC | GAGTCACCTT |
| 2851 | CGAAAACCTCA | CGTTAAGGGA | TTTTGGTCAT | GAGATTATCA | AAAAGGATCT |
| | GCTTTTGAGT | GCAATTCCTT | AAAACCAGTA | CTCTAATAGT | TTTTCCTAGA |

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2901 TCACCTAGAT CCTTTTAAAT TAAAAATGAA GTTTTAAATC AATCTAAAGT
AGTGGATCTA GGAAAATTTA ATTTTTACTT CAAAATTTAG TTAGATTTCA

2951 ATATATGAGT AAACCTGGTC TGACAGTTAC CAATGCTTAA TCAGTGAGGC
TATATACTCA TTTGAACCAG ACTGTCAATG GTTACGAATT AGTCACTCCG

AMP

3001 ACCTATCTCA GCGATCTGTC TATTTTCGTTT ATCCATAGTT GCCTGACTCC
TGGATAGAGT CGCTAGACAG ATAAAGCAAG TAGGTATCAA CGGACTGAGG

AMP

3051 CCGTCGTGTA GATAACTACG ATACGGGAGG GCTTACCATC TGGCCCCAGT
GGCAGCACAT CTATTGATGC TATGCCCTCC CGAATGGTAG ACCGGGGTCA

AMP

3101 GCTGCAATGA TACCGCGAGA CCCACGCTCA CCGGCTCCAG ATTTATCAGC
CGACGTTACT ATGGCGCTCT GGGTGCAGT GGCCGAGGTC TAAATAGTCG

AMP

3151 AATAAACCAG CCAGCCGAA GGGCCGAGCG CAGAAGTGGT CCTGCAACTT
TTATTTGGTC GGTGCGCCTT CCCGGCTCGC GTCTTCACCA GGACGTTGAA

AMP

3201 TATCCGCCTC CATCCAGTCT ATTAATTGTT GCCGGGAAGC TAGAGTAAGT
ATAGGCGGAG GTAGGTCAGA TAATTAACAA CGGCCCTTCG ATCTCATTCA

AMP

3251 AGTTCGCCAG TTAATAGTTT GCGCAACGTT GTTGCCATTG CTACAGGCAT
TCAAGCGGTC AATTATCAA CGCGTTGCAA CAACGGTAAC GATGTCCGTA

AMP

3301 CGTGGTGTCA CGCTCGTCGT TTGGTATGGC TTCATTGAGC TCCGGTTCCC
GCACCACAGT GCGAGCAGCA AACCATACCG AAGTAAGTCG AGGCAAGGG

AMP

3351 AACGATCAAG GCGAGTTACA TGATCCCCCA TGTGTGCAA AAAAGCGGTT
TTGCTAGTTC CGCTCAATGT ACTAGGGGGT ACAACACGTT TTTTCGCCAA

AMP

3401 AGCTCCTTCG GTCCTCCGAT CGTTGTCAGA AGTAAGTTGG CCGCAGTGTT
TCGAGGAAGC CAGGAGGCTA GCAACAGTCT TCATTCAACC GCGGTCACAA

AMP

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3451 ATCACTCATG GTTATGGCAG CACTGCATAA TTCTCTTACT GTCATGCCAT
TAGTGAGTAC CAATACCGTC GTGACGTATT AAGAGAATGA CAGTACGGTA

AMP

3501 CCGTAAGATG CTTTTCTGTG ACTGGTGAGT ACTCAACCAA GTCATTCTGA
GGCATTCTAC GAAAAGACAC TGACCACTCA TGAGTTGGTT CAGTAAGACT

AMP

3551 GAATAGTGTA TGC GGCGACC GAGTTGCTCT TGCCCGGCGT CAATACGGGA
CTTATCACAT ACGCCGCTGG CTCAACGAGA ACGGGCCGCA GTTATGCCCT

AMP

3601 TAATACCGCG CCACATAGCA GAACTTTAAA AGTGCTCATC ATTGGAAAAC
ATTATGGCGC GGTGTATCGT CTTGAAATTT TCACGAGTAG TAACCTTTTG

AMP

3651 GTTCTTCGGG GCGAAAAC TC AAGGATCT TACCGCTGTT GAGATCCAGT
CAAGAAGCCC CGCTTTTGAG AGTTCCTAGA ATGGCGACAA CTCTAGGTCA

AMP

3701 TCGATGTAAC CCACTCGTGC ACCCAACTGA TCTTCAGCAT CTTTTACTTT
AGCTACATTG GGTGAGCACG TGGGTTGACT AGAAGTCGTA GAAAATGAAA

AMP

3751 CACCAGCGTT TCTGGGTGAG CAAAAACAGG AAGGC AAAAT GCCGAAAAA
GTGGTCGCAA AGACCCACTC GTTTTTGTCC TTCCGTTTTA CGGCGTTTTT

AMP

3801 AGGGAATAAG GCGGACACGG AAATGTTGAA TACTCATACT CTTCCTTTTT
TCCCTTATTC CCGCTGTGCC TTTACAAC TT ATGAGTATGA GAAGGAAAAA

AMP

3851 CAATATTATT GAAGCATTTA TCAGGGTTAT TGTCTCATGA GCGGATACAT
GTTATAATAA CTTTCGTAAAT AGTCCCAATA ACAGAGTACT CGCCTATGTA

3901 ATTTGAATGT ATTTAGAAAA ATAAACAAAT AGGGGTTCCG CGCACATTTT
TAAACTTACA TAAATCTTTT TATTTGTTTA TCCCAAGGC GCGTGTAAG

3951 CCCGAAAAGT GCCACCTGAC GTCTAAGAAA CCATTATTAT CATGACATTA
GGGCTTTTCA CGGTGGACTG CAGATTCTTT GGTAATAATA GTACTGTAAT

4001 ACCTATAAAA ATAGGCGTAT CACGAGGCC TTTTCGTC
TGGATATTTT TATCCGCATA GTGCTCCGGG AAAGCAG