BtetX

Deposited by Sergio García and Guy Cardineau

Vector backbone: pUC57. Host strain: DH5α. Resistance: ampicillin

The TetX open reading frame [Genbank: JQ990987] was synthesized de novo with codons optimized for *Chlamydomonas reinhardtii* cytoplasmic expression under the control of constitutive beta 2 tubulin promoter and chlamyopsin1 3’UTR.

Comment: The BtetX plasmidcan be used to select nuclear transformants of *Chlamydomonas reinhardtii*. It has been proven to work in the cell wall deficient strain CC-849, however the wild-type cell-walled strain CC-125 is as sensitive to tetracycline as strain CC-849. The transformants should be selected in TAP plates containing 15 µg/mL of tetracycline and maintained below a light intensity of 24 µmoles m-2 s-1. Transformed colonies will be visible after 8 days and can resist up to 100 µg/mL of tetracycline.

Reference:

Plasmid map

 

LOCUS BtetX 4445 bp DNA circular

DEFINITION

FEATURES Location/Qualifiers

 promoter 451..766

 /label="beta 2 tubulin promoter"

 CDS 767..1933

 /cds\_type=ORF

 /label="tetX ORF"

 terminator 1934..2163

 /label="COP1 3'UTR"

 rep\_origin 2611..3225

 /label="PMB1 ori"

 CDS 3385..4245

 /label="amp r"

ORIGIN

TCGCGCGTTTCGGTGATGACGGTGAAAACCTCTGACACATGCAGCTCCCGGAGACGGTCACAGCTTGTCTGTAAGCGGATGCCGGGAGCAGACAAGCCCGTCAGGGCGCGTCAGCGGGTGTTGGCGGGTGTCGGGGCTGGCTTAACTATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATGCGGTGTGAAATACCGCACAGATGCGTAAGGAGAAAATACCGCATCAGGCGCCATTCGCCATTCAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAACGCCAGGGTTTTCCCAGTCACGACGTTGTAAAACGACGGCCAGTGAATTCGAGCTCGGTACCTCGCGAATGCATCTAGATGACCCAATCTGCAGTTTTGAGCTCTTTCTTGCGCTATGACACTTCCAGCAAAAGGTAGGGCGGGCTGCGAGACGGCTTCCCGGCGCTGCATGCAACACCGATGATGCTTCGACCCCCCGAAGCTCCTTCGGGGCTGCATGGGCGCTCCGATGCCGCTCCAGGGCGAGCGCTGTTTAAATAGCCAGGCCCCCGATTGCAAAGACATTATAGCGAGCTACCAAAGCCATATTCAAACACCTAGATCACTACCACTTCTACACAGGCCACTCGAGCTTGTGATCGCACTCCGCTAAGGGGGCGCCTCTTCCTCTTCGTTTCAGTCACAACCCGCAAACATGACCATGCGCATCGACACCGACAAGCAGATGAACCTGCTGTCCGACAAGAACGTGGCGATCATCGGCGGCGGCCCCGTGGGCCTGACCATGGCCAAGCTGCTCCAGCAGAACGGCATCGACGTGTCGGTGTACGAGCGCGACAACGACCGCGAGGCGCGCATCTTCGGCGGCACCCTGGACCTGCACAAGGGCTCCGGCCAGGAGGCCATGAAGAAGGCGGGCCTGCTCCAGACGTACTACGACCTGGCCCTGCCCATGGGCGTGAACATCGCGGACAAGAAGGGCAACATCCTGAGCACCAAGAACGTGAAGCCCGAGAACCGCTTCGACAACCCGGAGATCAACCGCAACGACCTGCGCGCCATCCTGCTGAACAGCCTGGAGAACGACACCGTGATCTGGGACCGCAAGCTGGTGATGCTGGAGCCCGGCAAGAAGAAGTGGACCCTGACGTTCGAGAACAAGCCGTCGGAGACCGCCGACCTGGTGATCCTGGCGAACGGCGGCATGTCCAAGGTGCGCAAGTTCGTGACCGACACGGAGGTGGAGGAGACCGGCACGTTCAACATCCAGGCCGACATCCACCAGCCCGAGATCAACTGCCCGGGCTTCTTCCAGCTGTGCAACGGCAACCGCCTGATGGCGTCCCACCAGGGCAACCTGCTGTTCGCCAACCCCAACAACAACGGCGCGCTGCACTTCGGCATCAGCTTCAAGACCCCGGACGAGTGGAAGAACCAGACGCAGGTGGACTTCCAGAACCGCAACTCCGTGGTGGACTTCCTGCTGAAGGAGTTCAGCGACTGGGACGAGCGCTACAAGGAGCTGATCCACACCACGCTGAGCTTCGTGGGCCTGGCCACCCGCATCTTCCCCCTGGAGAAGCCGTGGAAGTCGAAGCGCCCCCTGCCGATCACGATGATCGGCGACGCCGCGCACCTGATGCCCCCGTTCGCGGGCCAGGGCGTGAACAGCGGCCTGGTGGACGCCCTGATCCTGTCGGACAACCTGGCGGACGGCAAGTTCAACAGCATCGAGGAGGCCGTGAAGAACTACGAGCAGCAGATGTTCATGTACGGCAAGGAGGCGCAGGAGGAGTCGACGCAGAACGAGATCGAGATGTTCAAGCCCGACTTCACCTTCCAGCAGCTGCTGAACGTGTGAGGGACCTGATGGTGTTGGTGGCTGGGTAGGGTTGCGTCGCGTGGGTGACAGCACAGTGTGGACGTTGGGATCCGGCAAGACTGGCCCCGCTTGGCAACGCAACAGTGAGCCCCTCCCTAGTGTGTTTGGGGATGTGACTATGTATTCGTGTGTTGGCCAACGGGTCAACCCGAACAGATTGATACCCGCCTTGGCATTTCCTGTCAGAATGTAACGTCAGTTGATGGTACATTATCGGATCCCGGGCCCGTCGACTGCAGAGGCCTGCATGCAAGCTTGGCGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGTTATCCGCTCACAATTCCACACAACATACGAGCCGGAAGCATAAAGTGTAAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCGTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGTCGTTCGGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACTCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATTAAAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTCGTTCATCCATAGTTGCCTGACTCCCCGTCGTGTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTCACGCTCGTCGTTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGTCCTCCGATCGTTGTCAGAAGTAAGTTGGCCGCAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGCGCCACATAGCAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAACTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTTACTTTCACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTCTTCCTTTTTCAATATTATTGAAGCATTTATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCCACCTGACGTCTAAGAAACCATTATTATCATGACATTAACCTATAAAAATAGGCGTATCACGAGGCCCTTTCGTC