

pFSTREP-C Vector

Source	Constructed by Farrell MacKenzie
Company	Structural Genomics Consortium, Toronto
Description	pFSTREP-C is a donor vector for use in the Bac-to-Bac Baculovirus Expression System for expressing proteins in insect cells, and it is derived from the pFastBac HTa vector (Invitrogen). pFSTREP-C has a polyhedron promoter that drives the expression of proteins targeted for secretion with the addition of an N-terminal <i>Apis mellifera</i> melittin signal peptide and a C-terminal Strep-tag.
Antibiotic resistance	Ampicillin (plasmid resistance in <i>E. coli</i> ) Gentamicin (bacmid resistance in DH10Bac <i>E. coli</i> )
Promoter	Polyhedrin
Cloning Methods	Insertion of a DNA sequence into the cloning/expression region is performed using Clontech's In-fusion enzyme-mediated directional recombination between complementary 15 nucleotide DNA sequences at the ends of the insert (PCR product) and BfuAI linearized vector. Insertion of a target sequence involves replacement of a SacB gene stuffer sequence, which provides for negative selection of the original plasmid on 5% sucrose.
N – terminal fusion sequence	MKFLVNVALVFMVVYISYIYAAA
C – terminal fusion sequence	HHHHHHHH
5' primer tail for amplification of insert	5' ATCTATGCGGCCGCT --- 3'
3' primer tail for amplification of insert	5' CTGCGGGTGGCTCCA --- 3'
5' sequencing primer pFBOH-fwd	5' CCGGATTATTCATACCGTCCCACCA 3'
3' sequencing primer pFBOH-rev	5' CTGATTATGATCCTCTAGTACTTCT 3'

**pFSTREP-C sequence (6,781 bp):**

GACGCGCCCTGTAGCGGCGCATTAAAGCGCGGGCGGGTGTGGTGGTTACGCGCAGCGTGACC  
GCTACACTTGCCAGCGCCCTAGCGCCCGCTCCTTTTCGCTTTCTTCCCTTCCCTTTCTCGCCAC  
GTTTCGCGGGCTTTCCCGTCAAGCTCTAAATCGGGGGCTCCCTTTAGGGTTCCGATTTAGTG  
CTTTACGGCACCTCGACCCCAAAAACTTGATTAGGGTGTATGGTTCACGTAGTGGGCCATCG  
CCCTGATAGACGGTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTT  
GTTCCAAACTGGAACAACACTCAACCCTATCTCGGTCTATTCTTTTGATTTATAAGGGATTTT  
GCCGATTTTCGGCCTATTGGTTAAAAAATGAGCTGATTTAACAAAAATTTAACGCGAATTTTAA  
CAAAATATTAACGTTTACAATTTCAAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTA  
TTTGTATTTTTCTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAAT  
GCTTCAATAATATTGAAAAAGGAAGAGTATGAGTATTCAACATTTCCGTGTGCGCCCTTATTCC  
CTTTTTTCGCGCATTTTGCCTTCTGTTTTGCTCACCCAGAAACGCTGGTGAAAGTAAAAGA  
TGCTGAAGATCAGTTGGGTGCACGAGTGGTTACATCGAACTGGATCTCAACAGCGGTAAAG  
ATCCTTGAGAGTTTTTCGCCCGAAGAACGTTTTTCCAATGATGAGCACTTTTAAAGTTCTGCTA  
TGTGGCGCGGTATTATCCCGTATTGACGCCGGGCAAGAGCAACTCGGTGCGCCGCATACACT  
ATTCTCAGAATGACTTGGTTGAGTACTCACAGTACAGAAAAGCATCTTACGGATGGCATG  
ACAGTAAGAGAATTATGCAGTGCTGCCATAACCATGAGTGATAACACTGCGGCCAACTTACT  
TCTGACAACGATCGGAGGACCGAAGGAGCTAACCGCTTTTTTGCACAACATGGGGGATCAT  
GTAACCTCGCCTTGATCGTTGGGAACCGGAGCTGAATGAAGCCATACCAAACGACGAGCGTG  
ACACCACGATGCCTGTAGCAATGGCAACAACGTTGCGCAAACCTATTAACCTGGCGAACTACTT  
ACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGCGGATAAAGTTGCAGGACCACT  
TCTGCGCTCGGCCCTTCCGGCTGGCTGGTTTTATTGCTGATAAATCTGGAGCCGGTGAGCGT  
GGGTCTCGCGGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTA  
TCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCGCTGAGATAGG  
TGCCTCACTGATTAAGCATTGGTAACTGTCAGACCAAGTTTACTCATATATACTTTAGATTGAT  
TTAAAACCTTCATTTTTAAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCA  
AAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGA  
TCTTCTTGAGATCCTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAACCCACCGCTA  
CCAGCGGTGGTTTTGTTGCCGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAACCTGGCTT  
CAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCA  
AGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCC  
AGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGC  
AGCGGTGCGGGTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACA  
CCGAACCTGAGATACCTACAGCGTGAGCATTGAGAAAGCGCCACGCTTCCCGAAGGGAGAAA  
GGCGGACAGGTATCCGGTAAGCGGCAGGGTTCGGAACAGGAGAGCGCACGAGGGAGCTTC  
CAGGGGGAACGCCTGGTATCTTTATAGTCTGTCGGGTTTCGCCACCTCTGACTTGAGCG  
TCGATTTTTGTGATGCTCGTCAGGGGGCGAGCCTATGGAAAAACGCCAGCAACGCGGCC  
TTTTACGTTTTCTGGCCTTTTTGCTGGCCTTTTTGCTCACATGTTCTTTCTGCTTATCCCT  
GATTCTGTGGATAACCGTATTACCGCCTTTGAGTGAGCTGATACCGCTGCGCCGACGCCGAA  
CGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAGCGGAAGAGCGCCTGATGCGGTATTTTC  
TCCTTACGCATCTGTGCGGTATTTACACCCGACAGACCAGCCGCGTAACCTGGCAAATCGG  
TTACGGTTGAGTAATAAATGGATGCCCTGCGTAAGCGGGTGTGGGCGGACAATAAAGTCTTA  
AACTGAACAAAATAGATCTAAACTATGACAATAAAGTCTTAAACTAGACAGAATAGTTGTA  
CTGAAATCAGTCCAGTTATGCTGTGAAAAAGCATACTGGACTTTTTGTTATGGCTAAAGCAAAC  
TCTTCATTTTCTGAAGTGCAAATTGCCCGTCTGATTAAGAGGGGGCGTGGCCAAGGGCATGG  
TAAAGACTATATTCGCGGCGTTGTGACAATTTACCGAACAACTCCGCGGCCGGGAAGCCGA  
TCTCGGCTTGAACGAATTGTTAGGTGGCGGTACTTGGGTCGATATCAAAGTGCATCACTTCT  
TCCCGTATGCCCAACTTTGTATAGAGAGCCACTGCGGGATCGTCACCGTAATCTGCTTGCAC  
GTAGATCACATAAGCACCAAGCGCGTTGGCCTCATGCTTGAGGAGATTGATGAGCGCGGTG  
GCAATGCCCTGCCTCCGGTGTGCTGCGCGGAGACTGCGAGATCATAGATATAGATCTCACTAC  
GCGGCTGCTCAAACCTGGGCGAAGCGTAAGCCGCGAGAGCGCCAACAACCGCTTCTTGGT  
CGAAGGCAGCAAGCGCGATGAATGTCTTACTACGGAGCAAGTTCCCGAGGTAATCGGAGTC  
CGGCTGATGTTGGGAGTAGGTGGCTACGTCTCCGAACTCACGACCGAAAAGATCAAGAGCA  
GCCCCATGGATTTGACTTGGTTCAGGGCCGAGCCTACATGTGCGAATGATGCCCACTTG

AGCCACCTAACTTTGTTTTAGGGCGACTGCCCTGCTGCGTAACATCGTTGCTGCTGCGTAAC  
ATCGTTGCTGCTCCATAACATCAAACATCGACCCACGGCGTAACGCGCTTGCTGCTTGGATG  
CCCGAGGCATAGACTGTACAAAAAACAGTCATAACAAGCCATGAAAACCGCCACTGCGCC  
GTTACCACCGCTGCGTTCCGGTCAAGGTTCTGGACCAGTTGCGTGAGCGCATAACGCTACTTG  
CATTACAGTTTACGAACCGAACAGGCTTATGTCAACTGGGTTTCGTGCCTTCATCCGTTTTCCA  
CGGTGTGCGTCACCCGGCAACCTTGGGCAGCAGCGAAGTCGAGGCATTTCTGTCCTGGCT  
GGCGAACGAGCGCAAGGTTTTCCGGTCTCCACGCATCGTCAGGCATTGGCGGCCCTTGCTGTTT  
TTCTACGGCAAGGTGCTGTGCACGGATCTGCCCTGGCTTCAGGAGATCGGAAGACCTCGGC  
CGTCGCGGCGCTTGCCGGTGGTGTGACCCCGGATGAAGTGGTTTCGCATCCTCGGTTTTCT  
GGAAGGCGAGCATCGTTTTGTTCCGCCAGGACTCTAGCTATAGTTCTAGTGGTTGGCTACGTA  
TACTCCGGAATATTAATAGATCATGGAGATAATTAATAATGATAACCATCTCGAAATAAATAA  
GTATTTTACTGTTTTCGTAACAGTTTTGTAATAAAAAAACCTATAAATATTCCGGATTATTCATA  
CCGTCCCACCATCGGGCGCGGATCTCGGTCCGAAACCATGAAATTCTTAGTCAACGTTGCC  
CTTGTTTTTATGGTCGTATACATTTCTTACATCTATGCGGCCGCTCGTTGCAGGTCTGAAAGA  
TCCATAACTTCGTATAGCATACTTATACGAAGTTATGCGGCCGCGACGTCCACATATACT  
GCCGTTCACTATTATTTAGTGAAATGAGATATTATGATATTTTCTGAATTGTGATTAATAAAGGC  
AACTTTATGCCCATGCAACAGAAACTATAAAAAATACAGAGAATGAAAAGAAACAGATAGATT  
TTTTAGTTCTTTAGGCCCGTAGTCTGCAAATCCTTTTTATGATTTTCTATCAAACAAAAGAGGAA  
AATAGACCAGTTGCAATCCAAACGAGAGTCTAATAGAATGAGGTCGAAAAGTAAATCGCGCG  
GGTTTTGTTACTGATAAAGCAGGCAAGACCTAAAATGTGTAAGGGCAAAGTGTATACTTTGG  
CGTCACCCCTTACATATTTTAGGTCTTTTTTTTATTGTGCGTAACTAACTTGCCATCTTCAAACA  
GGAGGGCTGGAAGAAGCAGACCGCTAACACAGTACATAAAAAAGGAGACATGAACGATGAA  
CATCAAAAAGTTTGCAAAAACAAGCAACAGTATTAACCTTTACTACCGCACTGCTGGCAGGAG  
GCGCAACTCAAGCGTTTGCGAAAGAAACGAACCAAAAGCCATATAAGGAAACATACGGCATT  
TCCCATATTACACGCCATGATATGCTGCAAATCCCTGAACAGCAAAAAAATGAAAAATATAAA  
GTTCTGAGTTCGATTTCGTCCACAATTAATAATATCTCTTCTGCAAAAGGCCTGGACGTTTTGG  
GACAGCTGGCCATTACAAAACACTGACGGCACTGTCGCAAACCTATCACGGCTACCACATCGT  
CTTTGCATTAGCCGGAGATCCTAAAAATGCGGATGACACATCGATTTACATGTTCTATCAAAA  
AGTCGGCGAAACTTCTATTGACAGCTGGAAAAACGCTGGCCCGCTCTTTAAGACAGCGAC  
AAATTCGATGCAAATGATTCTATCCTAAAAAGACCAAACACAAGAATGGTCAGGTTTCAGCCACA  
TTTACATCTGACGGAAAAATCCGTTTATTCTACACTGATTTCTCCGGTAAACATTACGGCAAA  
CAAACACTGACAAGTCAAGTAAACGTATCAGCATCAGACAGCTCTTTGAACATCAACGG  
TGTAGAGGATTATAAATCAATCTTTGACGGTGACGGAAAAACGTATCAAATGTACAGCAGTT  
CATCGATGAAGGCAACTACAGCTCAGGCGACAACCATACGCTGAGAGATCCTCACTACGTA  
GAAGATAAAGGCCACAAATACTTAGTATTTGAAGCAAACACTGGAACGAAGATGGCTACCA  
AGGCGAAGAATCTTTATTTAACAAAGCATACTATGGCAAAGCACATCATTCTTCCGTCAAGA  
AAGTCAAAAACCTCTGCAAAGCGATAAAAAACGCACGGCTGAGTTAGCAAACGGCGCTCTCG  
GTATGATTGAGCTAAACGATGATTACACACTGAAAAAAGTGATGAAACCGCTGATTGCATCTA  
ACACAGTAACAGATGAAATTGAACGCGCGAACGTCTTTAAATGAACGGCAAATGGTACCTG  
TTCACTGACTCCCGCGGATCAAAAATGACGATTGACGGCATTACGTCTAACGATATTTACAT  
GCTTGTTATGTTTTCTAATTTCTTTAACTGGCCCATACAAGCCGCTGAACAAAACCTGGCCTTGT  
GTTAAAAATGGATCTTGATCCTAACGATGTAACCTTTACTTACTCACACTTCGCTGTACCTCA  
AGCGAAAGGAAACAATGTCGTGATTACAAGCTATATGACAAACAGAGGATTCTACGCAGACA  
AACATCAACGTTTGCGCCTAGCTTCTGCTGAACATCAAAGGCAAGAAAACATCTGTTGTC  
AAAGACAGCATCCTTGAACAAGGACAATTAACAGTTAACAAATAAAAAACGAAAAGAAAATGC  
CGATATCCTATTGGCATTGACGTCAGGTGGCACTTTTACCTGCATCATGGAGCCACCCGCA  
GTTGAAAAGTGATGAAGCTTGTGCGAGAAGTACTAGAGGATCATAATCAGCCATAACCACATT  
TGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCTGAACCTGAAACATAAAT  
GAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTATAATGGTTACAATAAAGCAATAGC  
ATCACAAATTTACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTTGTCCAAACTCA  
TCAATGTATCTTATCATGTCTGGATCTGATCACTGCTTGAGCCTAGGAGATCCGAACCAGATA  
AGTGAATCTAGTTCCAAACTATTTTGTCAATTTTAAATTTTCGTATTAGCTTACGACGCTACAC  
CCAGTTCCCATCTATTTTGTCACTCTTCCCTAAATAATCCTTAAAAACTCCATTTCCACCCCTC  
CCAGTTCCCAACTATTTTGTCCGCCACAGCGGGGCATTTTTTCTTCTGTTATGTTTTTAAATC  
AAACATCCTGCCAACTCCATGTGACAAACCGTCATCTTCGGCTACTTTTTCTCTGTACAGAA

TGAAAATTTTTCTGTCATCTCTTCGTTATTAATGTTTGTAAATTGACTGAATATCAACGCTTATTT  
GCAGCCTGAATGGCGAATGG