

pFBIP-N Vector

Source	Constructed by Farrell MacKenzie
Company	Structural Genomics Consortium, Toronto
Description	pFBIP-N 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). pFBIP-N has a polyhedron promoter that drives the expression of proteins targeted for secretion with the addition of an N-terminal <i>Drosophila</i> BiP signal peptide followed by a 6xHis tag and TEV cleavage site.
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	MKLCILLAVVAFVGLSLGGEHHHHHDYDIPENLYFQG
5' primer tail for amplification of insert	5' CTGTATTTTCAGGGC --- 3'
3' primer tail for amplification of insert	5' CGACAAGCTTCATCA --- 3'
5' sequencing primer pFBOH-fwd	5' CCGGATTATTCATACCGTCCCACCA 3'
3' sequencing primer pFBOH-rev	5' CTGATTATGATCCTCTAGTACTTCT 3'

pFBIP-N sequence (6,811 bp):

GACGCGCCCTGTAGCGGCCATTAAGCGCGGGTGTGGTGGTTACGCGCAGCGTGACC
GCTACACTTGCCAGCGCCCTAGCGCCCGCTCCTTTGCTTTCTTCCCTTCTTTCTCGCCAC
GTTTCGCGGGCTTTCCCGTCAAGCTCTAAATCGGGGGCTCCCTTTAGGGTTCCGATTTAGTG
CTTTACGGCACCTCGACCCCAAAAACTTGATTAGGGTGATGGTTCACGTAGTGGGCCATCG
CCCTGATAGACGGTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTT
GTTCCAAACTGGAACAACACTCAACCCTATCTCGGTCTATTCTTTTGATTTATAAGGGATTTT
GCCGATTTTCGGCCTATTGGTTAAAAAATGAGCTGATTTAACAAAAATTTAACGCGAATTTTAA
CAAAATATTAACGTTTACAATTTCAAGGTGGCACTTTTTCGGGGAAATGTGCGCGGAACCCCTA
TTTGTTTTATTTTTCTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAAT
GCTTCAATAATATTGAAAAAGGAAGAGTATGAGTATTCAACATTTCCGTGTGCGCCCTTATTCC
CTTTTTTTCGGCATTTCCTTCCCTGTTTTGCTCACCCAGAAACGCTGGTGAAGTAAAAGA
TGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAACTGGATCTCAACAGCGGTAAG
ATCCTTGAGAGTTTTTCGCCCGAAGAACGTTTTCCAATGATGAGCACTTTTAAAGTTCTGCTA
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TCTGACAACGATCGGAGGACCGAAGGAGCTAACCCTTTTTTGCACAACATGGGGGATCAT
GTAACCTCGCCTTGATCGTTGGGAACCGGAGCTGAATGAAGCCATACCAAACGACGAGCGTG
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AGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCC
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