Plasmid: **pKS-aphVIII-lox**

A *loxP*-site was introduced into a Klenow-treated *Psi*I site of vector pBluescriptII-KS (ampicillin resistance) and a *Pci*I restriction site was destroyed and replaced by an *Eco*RV site (double insertion). An expression cassette for *Chlamydomonas reinhardtii* comprising the beta2-tubulin-promoter, the *aphVIII*-gene from *Streptomyces rimosus* and the 3`-UTR from the Chlamyopsin1-gene was inserted via *SacI*/*KpnI*.

Plasmid-sequence:	pKS-aphVIII-lox	4308 bp	
	loxP:	368-402	
	beta2-tubulin-promoter:	699-1012	(*Sac*I/*Sal*I)
	aphVIII (from pSI105):	1013-1833	(*XhoI*/*Bam*HI)
	COP1-3`-UTR:	1902-2063	(*Bam*HI/*Kpn*I)

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   1 CTGACGCGCC CTGTAGCGGC GCATTAAGCG CGGCGGGTGT GGTGGTTACG
  51 CGCAGCGTGA CCGCTACACT TGCCAGCGCC CTAGCGCCCG CTCCTTTCGC
 101 TTTCTTCCCT TCCTTTCTCG CCACGTTCGC CGGCTTTCCC CGTCAAGCTC
 151 TAAATCGGGG GCTCCCTTTA GGGTTCCGAT TTAGTGCTTT ACGGCACCTC
 201 GACCCCAAAA AACTTGATTA GGGTGATGGT TCACGTAGTG GGCCATCGCC
 251 CTGATAGACG GTTTTTCGCC CTTTGACGTT GGAGTCCACG TTCTTTAATA
 301 GTGGACTCTT GTTCCAAACT GGAACAACAC TCAACCCTAT CTCGGTCTAT
 351 TCTTTTGATT TAAATTCATA ACTTCGTATA ATGTATGCTA TACGAAGTTA
 401 TGAATTAGGG ATTTTGCCGA TTTCGGCCTA TTGGTTAAAA AATGAGCTGA
 451 TTTAACAAAA ATTTAACGCG AATTTTAACA AAATATTAAC GCTTACAATT
 501 TCCATTCGCC ATTCAGGCTG CGCAACTGTT GGGAAGGGCG ATCGGTGCGG
 551 GCCTCTTCGC TATTACGCCA GCTGGCGAAA GGGGGATGTG CTGCAAGGCG
 601 ATTAAGTTGG GTAACGCCAG GGTTTTCCCA GTCACGACGT TGTAAAACGA
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 701 TTTCTTGCGC TATGACACTT CCAGCAAAAG GTAGGGCGGG CTGCGAGACG
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 801 CCTTCGGGGC TGCATGGGCG CTCCGATGCC GCTCCAGGGC GAGCGCTGTT
 851 TAAATAGCCA GGCCCCCGAT TGCAAAGACA TTATAGCGAG CTACCAAAGC
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 951 TGTGATCGCA CTCCGCTAAG GGGGCGCCTC TTCCTCTTCG TTTCAGTCAC
1001 AACCCGCAAA CATGGTCGAG ATTCGAAGCA TGGACGATGC GTTGCGTGCA
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1101 CTCGGGGGCT GGTGTTTATC GGCTTCGGGG TGGTGGGCGG GAGTTGTTTG
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1201 CGGCTGGTGT GGTTGGCGGA GGTGGGGATT CCCGTACCTC GTGTTGTGGA
1251 GGGTGGTGGG GACGAGAGGG TCGCCTGGTT GGTCACCGAA GCGGTTCCGG
1301 GGCGTCCGGC CAGTGCGCGG TGGCCGCGGG AGCAGCGGCT GGACGTGGCG
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1401 GTGTCCGTTC GATCGCAGTC TCGCGGTGAC GGTGCCGCAG GCGGCCCGTG
1451 CTGTCGCTGA AGGGAGCGTC GACTTGGAGG ATCTGGACGA GGAGCGGAAG
1501 GGGTGGTCGG GGGAGCGGCT TCTCGCCGAG CTGGAGCGGA CTCGGCCTGC
1551 GGACGAGGAT CTGGCGGTTT GCCACGGTGA CCTGTGCCCG GACAACGTGC
1601 TGCTCGACCC TCGTACCTGC GAGGTGACCG GGCTGATCGA CGTGGGGCGG
1651 GTCGGCCGTG CGGACCGGCA CTCCGATCTC GCGCTGGTGC TGCGCGAGCT
1701 GGCCCACGAG GAGGACCCGT GGTTCGGGCC GGAGTGTTCC GCGGCGTTCC
1751 TGCGGGAGTA CGGGCGCGGG TGGGATGGGG CGGTATCGGA GGAAAAGCTG
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1851 GTGGCTGGGT AGGGTTGCGT CGCGTGGGTG ACAGCACAGT GTGGACGTTG
1901 GGATCCGGCA AGACTGGCCC CGCTTGGCAA CGCAACAGTG AGCCCCTCCC
1951 TAGTGTGTTT GGGGATGTGA CTATGTATTC GTGTGTTGGC CAACGGGTCA
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2251 GCTTTCCAGT CGGGAAACCT GTCGTGCCAG CTGCATTAAT GAATCGGCCA
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2351 TCACTGACTC GCTGCGCTCG GTCGTTCGGC TGCGGCGAGC GGTATCAGCT
2401 CACTCAAAGG CGGTAATACG GTTATCCACA GAATCAGGGG ATAACGCAGG
2451 AAAGAACATG GATCGGTACG ATATCTTCGT CGATCGATAT CGTACCGATC
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3751 TCGGTCCTCC GATCGTTGTC AGAAGTAAGT TGGCCGCAGT GTTATCACTC
3801 ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC CATCCGTAAG
3851 ATGCTTTTCT GTGACTGGTG AGTACTCAAC CAAGTCATTC TGAGAATAGT
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4151 AAGGGCGACA CGGAAATGTT GAATACTCAT ACTCTTCCTT TTTCAATATT
4201 ATTGAAGCAT TTATCAGGGT TATTGTCTCA TGAGCGGATA CATATTTGAA
4251 TGTATTTAGA AAAATAAACA AATAGGGGTT CCGCGCACAT TTCCCCGAAA
4301 AGTGCCAC
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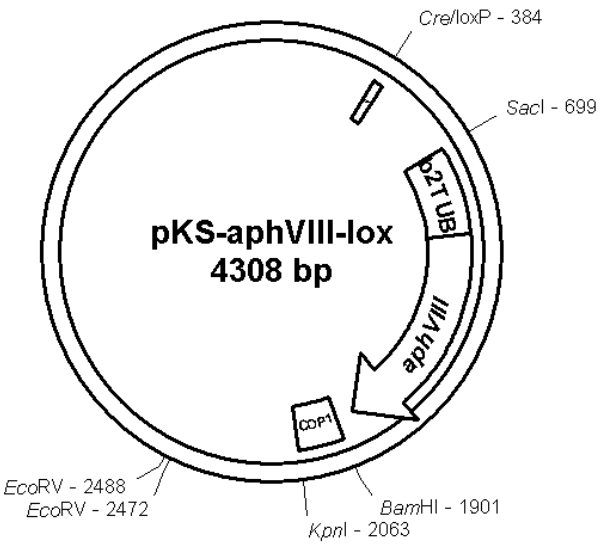
Plasmid-map:



Reference: Sizova, I., Fuhrmann, M., and Hegemann, P. (2001) A *Streptomyces rimosus* aphVIII gene coding for a new type phosphotransferase provides stable antibiotic resistance to *Chlamydomonas reinhardtii*. Gene 277, 221-9.

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