

## Vector Summary

Vector ID	VB220105-1311kkn
Vector Name	pSPL3-hRPH3A_c.444Tmut
Vector Size	6403 bp
Vector Type	Mammalian Gene Expression Vector
Plasmid Copy Number	High
Antibiotic Resistance	Ampicillin
Cloning Host	VB UltraStable (or alternative strain)

## Vector Map



## Vector Components

Name	Position	Size (bp)	Type	Description	Application notes
SV40 promoter	■ 10-339	330	promoter	None	note=Unknown feature type:Promoter color: #d84e4e; direction: RIGHT

Name	Position	Size (bp)	Type	Description	Application notes
XhoI	<b>1022-1027</b>	6	misc_feature	<i>None</i>	<i>None</i>
hRPH3A_c.444Tmut	<b>1028-1411</b>	384	misc_feature	<i>None</i>	note=hRPH3A_c.444Tmut
BamHI	<b>1412-1417</b>	6	misc_feature	<i>None</i>	<i>None</i>
RRE	<b>2857-3090</b>	234	misc_feature	<i>None</i>	full_name=HIV-1 Rev response element
gp41 peptide	<b>3275-3319</b>	45	ORF	<i>None</i>	codon_start=1 product=antigenic peptide corresponding to amino acids 655 to 669 of the HIV envelope protein gp41 (Lutje Hulshik et al., 2013)
SV40 poly(A) signal	<b>3635-3769</b>	135	polyA_signal	<i>None</i>	<i>None</i>
AmpR promoter	<b>4443-4547</b>	105	promoter	<i>None</i>	gene=bla note=Unknown feature type:Promoter color: #fd3434; direction: RIGHT
AmpR	<b>4548-5408</b>	861	ORF	<i>None</i>	codon_start=1 full_name=Ampicillin resistance gene gene=bla product=beta-lactamase
ori	<b>5579-6167</b>	589	rep_origin	<i>None</i>	<i>None</i>

Note: Components added by user are listed in **bold red** text.

## Vector Sequence

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1  CTGTGGAATG  TGTGTCAGTT  AGGGTGTGGA  AAGTCCCCAG  GCTCCCCAGC  AGGCAGAAGT  ATGCAAAGCA  TGCATCTCAA
81  TTAGTCAGCA  ACCAGGTGTG  GAAAGTCCCC  AGGCTCCCCA  GCAGGCAGAA  GTATGCAAAG  CATGCATCTC  AATTAGTCAG
161 CAACCATAGT  CCCGCCCTA  ACTCCGCCCA  TCCCGCCCT  AACTCCGCC  AGTTCCGCC  ATTCTCCGCC  CCATGGCTGA
241 CTAATTTTTT  TTATTTATGC  AGAGGCCGAG  GCCGCTCGG  CCTCTGAGCT  ATTCCAGAAG  TAGTGAGGAG  GCTTTTTTGG
321 AGGCCTAGGC  TTTTGCAAAA  AGCTTGACT  GTGTTACTT  GCAATCCCC  AAAACAGACA  GAATGGTGCA  TCTGTCCAGT
401 GAGGAGAAGT  CTGCGGTCAC  TGCCCTGTGG  GGCAAGGTGA  ATGTGGAAGA  AGTTGGTGGT  GAGGCCCTGG  GCAGGCTGCT
481 GGTGTCTAC  CCATGGACCC  AGAGGTCTT  CGAGTCCTT  GGGACCTGT  CCTCTGCAA  TGCTGTTATG  AACAACTCTA
561 AGGTGAAGGC  TCATGGCAAG  AAGGTGCTGG  CTGCCTCAG  TGAGGGTCTG  AGTCACCTGG  ACAACCTCAA  AGGCACCTTT
641 GCTAAGCTGA  GTGAACTGCA  CTGTGACAAG  CTGCACGTGC  TCTAGAGTCG  ACCCAGCAGT  AAGTAATACA  TGTAATGCAA
721 CCTATACAAA  TAGCAATAGT  AGCATTAGTA  GTAGCAATAA  TAATAGCAAT  AGTTGTGTGG  TCCATAGTAA  TCATAGAATA
801 TAGGAAAATA  TTAAGACAAA  GAAAAATAGA  CAGGTTAATT  GATAGACTAA  TAGAAAGAGC  AGAAGACAGT  GGCAATGAGA
881 GTGAAGGAGA  AATATCAGCA  CTTGTGGAGA  TGGGGGTGGA  GATGGGGCAC  CATGCTCCTT  GGGATGTTGA  TGATCTGTAG
961 TGCTACAGAA  AAATTGTGGG  TCACAGTCTA  TTATGGGGTA  GGGATCACCA  GAATTCTGGA  GCTCGAGATT  CTAAGTGGCC
1041 TTGCTCATAG  AAGGAAGTGG  GAGAAATGGA  AGCAAGTTCT  TCCTCTTTAC  ATCCACCAAG  AGAAAGTGGG  GGGCTACGTT
1121 GCCATGCCTC  CCATGAGCAT  GGCTCATCTG  AGTGTGTTGG  CTGTGTTTCA  TCCACAGAAC  GTCTGCACCA  AGTGCGGAGT
1201 GGAGACCAAC  AACCGCTGC  ATTCTGTGTG  GCTCTGCAAA  ATCTGCATTG  AGCAGAGGGA  TGTGAGTGCC  CTGGTCCCAC
1281 CTGGTGCCTA  GATCACCTC  CTTTCTTGGC  CAGCTTAAGA  GGTGCCTTAA  GAGGTTTGTA  TGAAGGACC  CAGCTCAGCA

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1361 GTGAACATTG ACAGAACAAC CTCAGAGTAT TTGGATGAAT TATTTCTCCT CGGATCCCAG ATATCTGGTG ATCCCGTACC  
 1441 TGTGTGGAAG GAAGCAACCA CCACTCTATT TTGTGCATCA GATGCTAAAG CATATGATAC AGAGGTACAT AATGTTTGGG  
 1521 CCACACATGC CTGTGTACCC ACAGACCCCA ACCCACAAGA AGTAGTATTG GTAAATGTGA CAGAAAATTT TAACATGTGG  
 1601 AAAAAATGACA TGGTAGAACA GATGCATGAG GATATAATCA GTTTATGGGA TCAAAGCCTA AAGCCATGTG TAAAATTAAC  
 1681 CCCACTCTGT GTTAGTTTAA AGTGCCTGTA TTTGAAGAAT GATACTAATA CCAATAGTAG TAGCGGGAGA ATGATAATGG  
 1761 AGAAAGGAGA GATAAAAAAC TGCTCTTTCA ATATCAGCAC AAGCATAAGA GGTAAGGTGC AGAAAAGAATA TGCATTTTTT  
 1841 TATAAACTTG ATATAATACC AATAGATAAT GATACTACCA GCTATACGTT GACAAGTTGT AACACCTCAG TCATTACACA  
 1921 GGCCTGTCCA AAGGTATCCT TTGAGCCAAT TCCCATACAT TATTGTGCC CGGCTGGTTT TGCATTCTA AAATGTAATA  
 2001 ATAAGACGTT CAATGGAACA GGACCATGTA CAAATGTCAG CACAGTACAA TGTACACATG GAATTAGGCC AGTAGTATCA  
 2081 ACTCAACTGC TGTTAAATGG CAGTCTAGCA GAAGAAGAGG TAGTAATTAG ATCTGTCAAT TTCACGGACA ATGCTAAAAC  
 2161 CATAATAGTA CAGCTGAACA CATCTGTAGA AATTAATTGT ACAAGACCCA ACAACAATAC AAGAAAAAAA ATCCGTATCC  
 2241 AGAGGGGACC AGGGAGAGCA TTTGTTACAA TAGGAAAAAT AGGAAATATG AGACAAGCAC ATTGTAACAT TAGTAGAGCA  
 2321 AAATGGAATG CCACTTTAAA ACAGATAGCT AGCAAATTAA GAGAACAATT TGGAAATAAT AAAACAATAA TCTTTAAGCA  
 2401 ATCCTCAGGA GGGGACCCAG AAATTGTAAC GCACAGTTTT AATTGTGGAG GGGAAATTTT CTACTGTAAT TCAACACAAC  
 2481 TGTTTAATAG TACTTGGTTT AATAGTACTT GGAGTACTGA AGGGTCAAAT AACACTGAAG GAAGTGACAC AATCACACTC  
 2561 CCATGCAGAA TAAAACAATT TATAAACATG TGGCAGGAAG TAGGAAAAGC AATGTATGCC CCTCCCATCA GCGGACAAAT  
 2641 TAGATGTTCA TCAAAATATTA CAGGGCTGCT ATTAACAAGA GATGGTGGTA ATAACAACAA TGGGTCCGAG ATCTTCAGAC  
 2721 CTGGAGGAGG AGATATGAGG GACAATTGGA GAAGTGAATT ATATAAATAT AAAGTAGTAA AAATTGAACC ATTAGGAGTA  
 2801 GCACCACCA AGGCAAAGAG AAGAGTGGTG CAGAGAGAAA AAAGAGCAGT GGGAAATAGGA GCTTTGTTC TTGGTTCTT  
 2881 GGGAGCAGCA GGAAGCACTA TGGGCGCAGC GTCAATGACG CTGACGGTAC AGGCCAGACA ATTATTGTCT GGTATAGTGC  
 2961 AGCAGCAGAA CAATTTGCTG AGGGCTATTG AGGCACAACA GCATCTGTTG CAACTCACAG TCTGGGGCAT CAAGCAGCTC  
 3041 CAGGCAAGAA TCCTGGCTGT GGAAAGATAC CTAAAGGATC AACAGCTCCT GGGGATTGG GGTTGCTCTG GAAAACACT  
 3121 TTGCACCACT GCTGTGCCTT GGAATGCTAG TTGGAGTAAT AAATCTCTGG AACAGATTTG GAATCACACG ACGTGGATGG  
 3201 AGTGGGACAG AGAAATTAAC AATTACACAA GCTTAATACA CTCCTTAATT GAAGAATCGC AAAACCAGCA AGAAAAGAAT  
 3281 GAACAAGAAT TATTGGAATT AGATAAATGG GCAAGTTTGT GGAATTGGTT TAACATAACA AATTGGCTGT GGTATATAAA  
 3361 ATTATTCATA ATGATAGTAG GAGGCTTGGT AGGTTTAAGA ATAGTTTTTG CTGTACTTTC TGTAGTGAAT AGAGTTAGGC  
 3441 AGGGATATTC ACCATTATCG TTTCAGACCT GGAGATCTCC CGAGGGGACC CGACAGGCC GAAGGAATAG AAGAAGAAGG  
 3521 TGGAGAGAGA GACAGAGACA GATCCATTTC GACCAATTCA CTCCTCAGGT GCAGGCTGCC TATCAGAAGG TGGTGGCTGG  
 3601 TGTGGCCAAT GCCCTGGCTC ACAAATACCA CTGAGATCCA GACATGATAA GATACATTGA TGAGTTTGG CAAACCACAA  
 3681 CTAGAATGCA GTGAAAAAAA TGCTTTATTT GTGAAATTTG TGATGCTATT GCTTTATTTG TAACCATTAT AAGCTGCAAT  
 3761 AAACAAGTTA ACAACAACAA TTGCATTCAT TTTATGTTTC AGGTTCAGGG GGAGGTGTGG GAGGTTTTTT AAAGCAAGTA  
 3841 AAACCTCTAC AAATGTGGTA TGGCTGATTA TGATCCCAG GAAGCTCCTC TGTGTCTCA TAAACCCTAA CCTCCTCTAC  
 3921 TTGAGAGGAC ATTCCAATCA TAGGCTGCC ATCCACCCTC TGTGTCTCC TGTTAATTAG GTCACTTAAC AAAAAGGAAA  
 4001 TTGGGTAGGG GTTTTTTACA GACCGCTTTC TAAGGGTAAT TTTAAAATAT CTGGGAAGTC CCTTCCACTG CTGTGTTCCA  
 4081 GAAGTGTGG TAAACAGCCC ACAAATGTC ACAGCAGAAA CATAAAGCT GTCAGCTTTG CACAAGGGCC CAACACCCTG  
 4161 CTCATCAAGA AGCACTGTGG TTGCTGTGTT AGTAATGTGC AAAACAGGAG GCACATTTTC CCCACCTGTG TAGGTTCCAA  
 4241 AATATCTAGT GTTTTCATTT TTAATTGGAT CAGGAACCCA GCACTCCACT GGATAAGCAT TATCCTTATC CAAAACAGCC  
 4321 TTGTGGTCAG TGTTTCATCTG CTGACTGTCA ACTGTAGCAT TTTTGGGGT TACAGTTTGA GCAGGATATT TGGTCTGTGA  
 4401 GTTTGCTAAC ACACCCAGG TGGCACTTTT CGGGGAAATG TGCGCGGAAC CCCTATTTGT TTATTTTTCT AAATACATTC  
 4481 AAATATGTAT CCGCTCATGA GACAATAACC CTGATAAATG CTTCAATAAT ATTGAAAAG GAAGAGTATG AGTATTCAAC  
 4561 ATTTCCGTGT CGCCCTTATT CCCTTTTTTTG CGGCATTTTG CCTTCTGTGT TTTGCTCACC CAGAAAACGCT GGTGAAAGTA  
 4641 AAAGATGCTG AAGATCAGTT GGGTGCACGA GTGGTTTACA TGCAACTGGA TCTCAACAGC GGTAAGATCC TTGAGAGTTT  
 4721 TCGCCCGAA GAACGTTTTT CAATGATGAG CACTTTTAAA GTTCTGCTAT GTGGCGCGGT ATTATCCCGT ATTGACGCCG  
 4801 GGCAAGAGCA ACTCGGTCGC CGCATAACT ATTCTCAGAA TGACTTGGTT GAGTACTCAC CAGTCACAGA AAAGCATCTT  
 4881 ACGGATGGCA TGACAGTAAG AGAATTATGC AGTGTGCCA TAACCATGAG TGATAACACT GCGGCCAACT TACTTCTGAC  
 4961 AACGATCGGA GGACCGAAGG AGCTAACCGC TTTTTTGCAC AACATGGGGG ATCATGTAAC TCGCCTTGAT CGTTGGGAAC  
 5041 CGGAGCTGAA TGAAGCCATA CCAAACGACG AGCGTGACAC CACGATGCCT GTAGCAATGG CAACAACGTT GCGCAAACCTA  
 5121 TTAACTGGCG AACTACTTAC TCTAGCTTCC CGGCAACAAT TAATAGACTG GATGGAGGCG GATAAAGTTG CAGGACCACT

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5201 TCTGCGCTCG GCCCTTCCGG CTGGCTGGTT TATTGCTGAT AAATCTGGAG CCGGTGAGCG TGGGTCTCGC GGTATCATTG
5281 CAGCACTGGG GCCAGATGGT AAGCCCTCCC GTATCGTAGT TATCTACACG ACGGGGAGTC AGGCAACTAT GGATGAACGA
5361 AATAGACAGA TCGCTGAGAT AGGTGCCCTCA CTGATTAAGC ATTGGTAACT GTCAGACCAA GTTTACTCAT ATATACTTTA
5441 GATTGATTTA AAACTTCATT TTTAATTTAA AAGGATCTAG GTGAAGATCC TTTTTGATAA TCTCATGACC AAAATCCTTA
5521 ACGGTGAGTT TTCGTTCCAC TGAGCGTCAG ACCCCGTAGA AAAGATCAAA GGATCTTCTT GAGATCCTTT TTTTCTGCGC
5601 GTAATCTGCT GCTTGCAAAC AAAAAAACCA CCGCTACCAG CGGTGGTTTG TTTGCCGGAT CAAGAGCTAC CAACTCTTTT
5681 TCCGAAGGTA ACTGGCTTCA GCAGAGCGCA GATACCAAAT ACTGTCCTTC TAGTGTAGCC GTAGTTAGGC CACCACTTCA
5761 AGAACTCTGT AGCACCGCCT ACATACCTCG CTCTGCTAAT CCTGTTACCA GTGGCTGCTG CCAGTGGCGA TAAGTCGTGT
5841 CTTACCGGGT TGGACTCAAG ACGATAGTTA CCGATAAAGG CGCAGCGGTC GGGCTGAACG GGGGGTTCGT GCACACAGCC
5921 CAGCTTGAGG CGAACGACCT ACACCGAACT GAGATACCTA CAGCGCGAGC ATTGAGAAAG CGCCACGCTT CCCGAAGGGA
6001 GAAAGGCGGA CAGGTATCCG GTAAGCGGCA GGGTCGGAAC AGGAGAGCGC ACGAGGGAGC TTCAGGGGGG AAACGCCTGG
6081 TATCTTTATA GTCCTGTCGG GTTTCGCCAC CTCTGACTTG AGCGTCGATT TTTGTGATGC TCGTCAGGGG GGCGGAGCCT
6161 ATGGAAAAAC GCCAGCAACG CGGCCTTTTT ACGGTTCCTG GCCTTTTGCT GGCCTTTTGC TCACATGTTT TTTCTGCGT
6241 TATCCCCTGA TTCTGTGGAT AACCGTATTA CCGCCTTTGA GTGAGCTGAT ACCGCTCGCC GCAGCCGAAC GACCGAGCGC
6321 AGCGAGTCAG TGAGCGAGGA AGCGGAAGAG CGCCAATAC GCAAACCGCC TCTCCCCGCG CGTTGGCCGA TTCATTAATG
6401 CAG

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## Validation by Restriction Enzyme Digestion

Restriction Enzymes	Cutting Sites	DNA Fragments (bp)
XhoI	1023	6403
NdeI	1493	6403
ApaLI	1703, 4664, 5910	2961, 1246, 2196
EcoRV	1423	6403
BamHI	1413	6403
ApaLI+XhoI	1023, 1703, 4664, 5910	680, 2961, 1246, 1516
ApaLI+NdeI	1493, 1703, 4664, 5910	210, 2961, 1246, 1986
ApaLI+BamHI	1413, 1703, 4664, 5910	290, 2961, 1246, 1906
ApaLI+EcoRV	1423, 1703, 4664, 5910	280, 2961, 1246, 1916