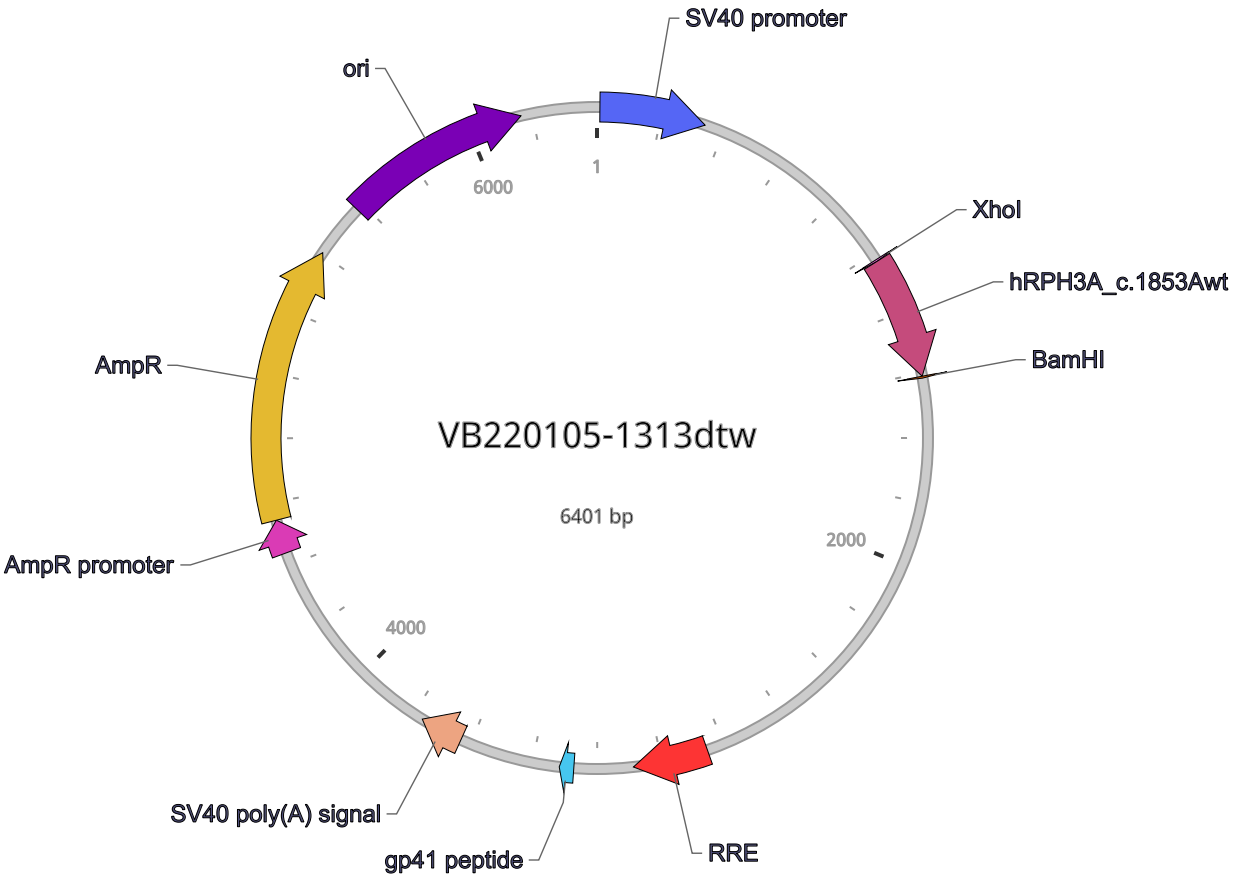
## Vector Summary

| | |
|---|---|
| **Vector ID** | VB220105-1313dtw |
| **Vector Name** | pSPL3-hRPH3A_c.1853Awt |
| **Vector Size** | 6401 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 | 1022-1027 | 6 | misc_feature | *None* | *None* |
| hRPH3A_c.1853Awt | 1028-1409 | 382 | misc_feature | *None* | note=hRPH3A_c.1853Awt |
| BamHI | 1410-1415 | 6 | misc_feature | *None* | *None* |
| RRE | 2855-3088 | 234 | misc_feature | *None* | full_name=HIV-1 Rev response element |
| gp41 peptide | 3273-3317 | 45 | ORF | *None* | codon_start=1<br>product=antigenic peptide corresponding to amino acids 655 to 669 of the HIV envelope protein gp41 (Lutje Hulsik et al., 2013) |
| SV40 poly(A) signal | 3633-3767 | 135 | polyA_signal | *None* | *None* |
| AmpR promoter | 4441-4545 | 105 | promoter | *None* | gene=bla<br>note=Unknown feature<br>type:Promoter color: #fd3434;<br>direction: RIGHT |
| AmpR | 4546-5406 | 861 | ORF | *None* | codon_start=1<br>full_name=Ampicillin resistance gene<br>gene=bla<br>product=beta-lactamase |
| ori | 5577-6165 | 589 | rep_origin | *None* | *None* |

**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 CCCGCCCCTA ACTCCGCCCA TCCCGCCCCT AACTCCGCCC AGTTCCGCCC ATTCTCCGCC CCATGGCTGA
 241 CTAATTTTTT TTATTTATGC AGAGGCCGAG GCCGCCTCGG CCTCTGAGCT ATTCCAGAAG TAGTGAGGAG GCTTTTTTGG
 321 AGGCCTAGGC TTTTGCAAAA AGCTTGGACT GTGTTTACTT GCAATCCCCC AAAACAGACA GAATGGTGCA TCTGTCCAGT
 401 GAGGAGAAGT CTGCGGTCAC TGCCCTGTGG GGCAAGGTGA ATGTGGAAGA AGTTGGTGGT GAGGCCCTGG GCAGGCTGCT
 481 GGTTGTCTAC CCATGGACCC AGAGGTTCTT CGAGTCCTTT GGGGACCTGT CCTCTGCAAA TGCTGTTATG AACAATCCTA
 561 AGGTGAAGGC TCATGGCAAG AAGGTGCTGG CTGCCTTCAG 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 GCTCGAGGAT GCTCTAATGC
1041 ATATTGGTCA TTATCAATGT TGATCCCTTT CTGATTTATT CATCAATTCA CCCTGATAAA GAAGGGGCCT TTGGGGTCAA
1121 GAGGCTGTTC TTATTCATTA AACGTCATCC ATAATAGCAT GTTGTGTCGC CTCCCAGCTG GCTGAAACCG GACATGGGAA
1201 AGAAGGCCAA ACACAAGACT CAAATTAAAA AGAAAACCTT GAATCCCGAA TTCAATGAGG TAAGGCTGCC CTATTCTTTT
1281 TCATGCTCTG GGATATTTGC TGTGTGTTAG AGAGGCACAA ATAGCCACAT AGCCATTAAA TATGTGGCCA CATAGCCATT
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1361 AAATGCAGCC ATTTGAAATG ATGATGTAGA AAAATATTTG AAAAATATTG GATCCCAGAT ATCTGGTGAT CCCGTACCTG
1441 TGTGGAAGGA AGCAACCACC ACTCTATTTT GTGCATCAGA TGCTAAAGCA TATGATACAG AGGTACATAA TGTTTGGGCC
1521 ACACATGCCT GTGTACCCAC AGACCCCAAC CCACAAGAAG TAGTATTGGT AAATGTGACA GAAAATTTTA ACATGTGGAA
1601 AAATGACATG GTAGAACAGA TGCATGAGGA TATAATCAGT TTATGGGATC AAAGCCTAAA GCCATGTGTA AAATTAACCC
1681 CACTCTGTGT TAGTTTAAAG TGCACTGATT TGAAGAATGA TACTAATACC AATAGTAGTA GCGGGAGAAT GATAATGGAG
1761 AAAGGAGAGA TAAAAAACTG CTCTTTCAAT ATCAGCACAA GCATAAGAGG TAAGGTGCAG AAAGAATATG CATTTTTTTA
1841 TAAACTTGAT ATAATACCAA TAGATAATGA TACTACCAGC TATACGTTGA CAAGTTGTAA CACCTCAGTC ATTACACAGG
1921 CCTGTCCAAA GGTATCCTTT GAGCCAATTC CCATACATTA TTGTGCCCCG GCTGGTTTTG CGATTCTAAA ATGTAATAAT
2001 AAGACGTTCA ATGGAACAGG ACCATGTACA AATGTCAGCA CAGTACAATG TACACATGGA ATTAGGCCAG TAGTATCAAC
2081 TCAACTGCTG TTAAATGGCA GTCTAGCAGA AGAAGAGGTA GTAATTAGAT CTGTCAATTT CACGGACAAT GCTAAAACCA
2161 TAATAGTACA GCTGAACACA TCTGTAGAAA TTAATTGTAC AAGACCCAAC AACAATACAA GAAAAAAAAT CCGTATCCAG
2241 AGGGGACCAG GGAGAGCATT TGTTACAATA GGAAAAATAG GAAATATGAG ACAAGCACAT TGTAACATTA GTAGAGCAAA
2321 ATGGAATGCC ACTTTAAAAC AGATAGCTAG CAAATTAAGA GAACAATTTG GAAATAATAA AACAATAATC TTTAAGCAAT
2401 CCTCAGGAGG GGACCCAGAA ATTGTAACGC ACAGTTTTAA TTGTGGAGGG GAATTTTTCT ACTGTAATTC AACACAACTG
2481 TTTAATAGTA CTTGGTTTAA TAGTACTTGG AGTACTGAAG GGTCAAATAA CACTGAAGGA AGTGACACAA TCACACTCCC
2561 ATGCAGAATA AAACAATTTA TAAACATGTG GCAGGAAGTA GGAAAAGCAA TGTATGCCCC TCCCATCAGC GGACAAATTA
2641 GATGTTCATC AAATATTACA GGGCTGCTAT TAACAAGAGA TGGTGGTAAT AACAACAATG GGTCCGAGAT CTTCAGACCT
2721 GGAGGAGGAG ATATGAGGGA CAATTGGAGA AGTGAATTAT ATAAATATAA AGTAGTAAAA ATTGAACCAT TAGGAGTAGC
2801 ACCCACCAAG GCAAAGAGAA GAGTGGTGCA GAGAGAAAAA AGAGCAGTGG GAATAGGAGC TTTGTTCCTT GGGTTCTTGG
2881 GAGCAGCAGG AAGCACTATG GGCGCAGCGT CAATGACGCT GACGGTACAG GCCAGACAAT TATTGTCTGG TATAGTGCAG
2961 CAGCAGAACA ATTTGCTGAG GGCTATTGAG GCGCAACAGC ATCTGTTGCA ACTCACAGTC TGGGGCATCA AGCAGCTCCA
3041 GGCAAGAATC CTGGCTGTGG AAAGATACCT AAAGGATCAA CAGCTCCTGG GGATTTGGGG TTGCTCTGGA AAACTACTTT
3121 GCACCACTGC TGTGCCTTGG AATGCTAGTT GGAGTAATAA ATCTCTGGAA CAGATTTGGA ATCACACGAC GTGGATGGAG
3201 TGGGACAGAG AAATTAACAA TTACACAAGC TTAATACACT CCTTAATTGA AGAATCGCAA AACCAGCAAG AAAAGAATGA
3281 ACAAGAATTA TTGGAATTAG ATAAATGGGC AAGTTTGTGG AATTGGTTTA ACATAACAAA TTGGCTGTGG TATATAAAAT
3361 TATTCATAAT GATAGTAGGA GGCTTGGTAG GTTTAAGAAT AGTTTTTGCT GTACTTTCTG TAGTGAATAG AGTTAGGCAG
3441 GGATATTCAC CATTATCGTT TCAGACCTGG AGATCTCCCG AGGGGACCCG ACAGGCCCGA AGGAATAGAA GAAGAAGGTG
3521 GAGAGAGAGA CAGAGACAGA TCCATTTCGA CCAATTCACT CCTCAGGTGC AGGCTGCCTA TCAGAAGGTG GTGGCTGGTG
3601 TGGCCAATGC CCTGGCTCAC AAATACCACT GAGATCCAGA CATGATAAGA TACATTGATG AGTTTGGACA AACCACAACT
3681 AGAATGCAGT GAAAAAAATG CTTTATTTGT GAAATTTGTG ATGCTATTGC TTTATTTGTA ACCATTATAA GCTGCAATAA
3761 ACAAGTTAAC AACAACAATT GCATTCATTT TATGTTTCAG GTTCAGGGGG AGGTGTGGGA GGTTTTTTAA AGCAAGTAAA
3841 ACCTCTACAA ATGTGGTATG GCTGATTATG ATCCCCAGGA AGCTCCTCTG TGTCCTCATA AACCCTAACC TCCTCTACTT
3921 GAGAGGACAT TCCAATCATA GGCTGCCCAT CCACCCTCTG TGTCCTCCTG TTAATTAGGT CACTTAACAA AAAGGAAATT
4001 GGGTAGGGGT TTTTCACAGA CCGCTTTCTA AGGGTAATTT TAAAATATCT GGGAAGTCCC TTCCACTGCT GTGTTCCAGA
4081 AGTGTTGGTA AACAGCCCAC AAATGTCAAC AGCAGAAACA TACAAGCTGT CAGCTTTGCA CAAGGGCCCA ACACCCTGCT
4161 CATCAAGAAG CACTGTGGTT GCTGTGTTAG TAATGTGCAA AACAGGAGGC ACATTTTCCC CACCTGTGTA GGTTCCAAAA
4241 TATCTAGTGT TTTCATTTTT ACTTGGATCA GGAACCCAGC ACTCCACTGG ATAAGCATTA TCCTTATCCA AAACAGCCTT
4321 GTGGTCAGTG TTCATCTGCT GACTGTCAAC TGTAGCATTT TTTGGGGTTA CAGTTTGAGC AGGATATTTG GTCCTGTAGT
4401 TTGCTAACAC ACCCCAGGTG GCACTTTTCG GGGAAATGTG CGCGGAACCC CTATTTGTTT ATTTTTCTAA ATACATTCAA
4481 ATATGTATCC GCTCATGAGA CAATAACCCT GATAAATGCT TCAATAATAT TGAAAAAGGA AGAGTATGAG TATTCAACAT
4561 TTCCGTGTCG CCCTTATTCC CTTTTTTGCG GCATTTTGCC TTCCTGTTTT TGCTCACCCA GAAACGCTGG TGAAAGTAAA
4641 AGATGCTGAA GATCAGTTGG GTGCACGAGT GGGTTACATC GAACTGGATC TCAACAGCGG TAAGATCCTT GAGAGTTTTC
4721 GCCCCGAAGA ACGTTTTCCA ATGATGAGCA CTTTTAAAGT TCTGCTATGT GGCGCGGTAT TATCCCGTAT TGACGCCGGG
4801 CAAGAGCAAC TCGGTCGCCG CATACACTAT TCTCAGAATG ACTTGGTTGA GTACTCACCA GTCACAGAAA AGCATCTTAC
4881 GGATGGCATG ACAGTAAGAG AATTATGCAG TGCTGCCATA ACCATGAGTG ATAACACTGC GGCCAACTTA CTTCTGACAA
4961 CGATCGGAGG ACCGAAGGAG CTAACCGCTT TTTTGCACAA CATGGGGGAT CATGTAACTC GCCTTGATCG TTGGGAACCG
5041 GAGCTGAATG AAGCCATACC AAACGACGAG CGTGACACCA CGATGCCTGT AGCAATGGCA ACAACGTTGC GCAAACTATT
5121 AACTGGCGAA CTACTTACTC TAGCTTCCCG GCAACAATTA ATAGACTGGA TGGAGGCGGA TAAAGTTGCA GGACCACTTC
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5201 TGCGCTCGGC CCTTCCGGCT GGCTGGTTTA TTGCTGATAA ATCTGGAGCC GGTGAGCGTG GGTCTCGCGG TATCATTGCA
5281 GCACTGGGGC CAGATGGTAA GCCCTCCCGT ATCGTAGTTA TCTACACGAC GGGGAGTCAG GCAACTATGG ATGAACGAAA
5361 TAGACAGATC GCTGAGATAG GTGCCTCACT GATTAAGCAT TGGTAACTGT CAGACCAAGT TTACTCATAT ATACTTTAGA
5441 TTGATTTAAA ACTTCATTTT TAATTTAAAA GGATCTAGGT GAAGATCCTT TTTGATAATC TCATGACCAA AATCCTTAAC
5521 GGTGAGTTTT CGTTCCACTG AGCGTCAGAC CCCGTAGAAA AGATCAAAGG ATCTTCTTGA GATCCTTTTT TTCTGCGCGT
5601 AATCTGCTGC TTGCAAACAA AAAAACCACC GCTACCAGCG GTGGTTTGTT TGCCGGATCA AGAGCTACCA ACTCTTTTTC
5681 CGAAGGTAAC TGGCTTCAGC AGAGCGCAGA TACCAAATAC TGTCCTTCTA GTGTAGCCGT AGTTAGGCCA CCACTTCAAG
5761 AACTCTGTAG CACCGCCTAC ATACCTCGCT CTGCTAATCC TGTTACCAGT GGCTGCTGCC AGTGGCGATA AGTCGTGTCT
5841 TACCGGGTTG GACTCAAGAC GATAGTTACC GGATAAGGCG CAGCGGTCGG GCTGAACGGG GGGTTCGTGC ACACAGCCCA
5921 GCTTGGAGCG AACGACCTAC ACCGAACTGA GATACCTACA GCGCGAGCAT TGAGAAAGCG CCACGCTTCC CGAAGGGAGA
6001 AAGGCGGACA GGTATCCGGT AAGCGGCAGG GTCGGAACAG GAGAGCGCAC GAGGGAGCTT CCAGGGGGAA ACGCCTGGTA
6081 TCTTTATAGT CCTGTCGGGT TTCGCCACCT CTGACTTGAG CGTCGATTTT TGTGATGCTC GTCAGGGGGG CGGAGCCTAT
6161 GGAAAAACGC CAGCAACGCG GCCTTTTTAC GGTTCCTGGC CTTTTGCTGG CCTTTTGCTC ACATGTTCTT TCCTGCGTTA
6241 TCCCCTGATT CTGTGGATAA CCGTATTACC GCCTTTGAGT GAGCTGATAC CGCTCGCCGC AGCCGAACGA CCGAGCGCAG
6321 CGAGTCAGTG AGCGAGGAAG CGGAAGAGCG CCCAATACGC AAACCGCCTC TCCCCGCGCG TTGGCCGATT CATTAATGCA
6401 G
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## Validation by Restriction Enzyme Digestion

| Restriction Enzymes | Cutting Sites | DNA Fragments (bp) |
|---|---|---|
| XhoI | 1023 | 6401 |
| NdeI | 1491 | 6401 |
| ApaLI | 1701, 4662, 5908 | 2961, 1246, 2194 |
| EcoRV | 1421 | 6401 |
| BamHI | 1411 | 6401 |
| ApaLI+XhoI | 1023, 1701, 4662, 5908 | 678, 2961, 1246, 1516 |
| ApaLI+NdeI | 1491, 1701, 4662, 5908 | 210, 2961, 1246, 1984 |
| ApaLI+BamHI | 1411, 1701, 4662, 5908 | 290, 2961, 1246, 1904 |
| ApaLI+EcoRV | 1421, 1701, 4662, 5908 | 280, 2961, 1246, 1914 |