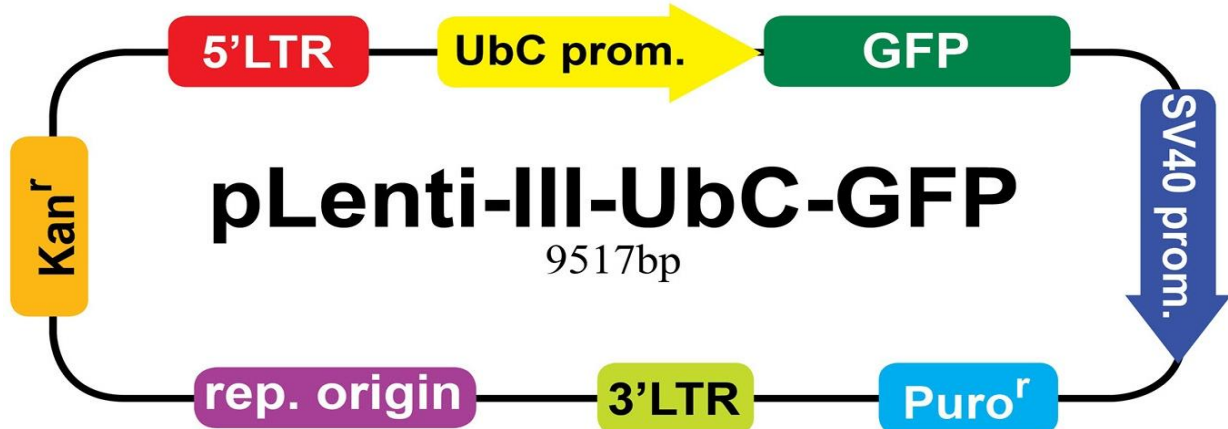


LV027

Vector Name	pLenti-III-UbC-GFP
VectorType	Lentivirus
Antibiotic Information	Puromycin
Sequencing Primers	UbC Sequencing Primer 5'---GGCCTCCGCGCCGGGTTTTGGCGCCTCCCGCGGGCGCCCC---3'
Cloning Sites	NheI/KpnI



Sequence

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Genebank

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     misc_binding     4510..4515
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     misc_binding     4516..4521
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     Rep_Origin       4745..4822
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     ORF              4812..5480
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     misc_binding     4825..4837
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     Marker           4881..5480
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Other Gene      6143..6323
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Text Map

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      CCCTTGCCCCGCCACTGCATCATCACACCGCTTACACTACAACGTTTACACCGCCTT
                Encap other (162,310)>>>
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1261 caggatcagaagaacttagatcattatataataacagtagcaaccctctattgtgtgcatc 1320
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1321 aaaggatagagataaaagacaccaaggaagcttagacaagatagaggaagagcaaaaca 1380
TTTCTATCTCTATTTCTGTGGTTCCTTCGAAATCTGTCTATCTCCTTCTCGTTTGT

1381 aaagtaagaccaccgcacagcaagcccgctgatcttcagacctggaggaggagatag 1440
TTTCTATTCTGGTGGCGTGTCTGTCGGGCGACTAGAAGTCTGGACCTCCTCCTTACT

1441 ggacattggagaagtgaattatataaaataaaagtagtaaaaaattgaaccattaggagta 1500
CCTGTAACCTTCACTTAATATATTATATTTCATCATTTTTAACTTGGTAATCCTCAT

RRE reg (1557,1790)>>>

1501 gcacccaccaagcacaagagaagagtggtgcagagagaaaaagagcagtggaatagga 1560
CGTGGGTGGTTCGTTCTTCTCACCACGTCCTCTTTTTTCTCGTACCCTTATCTT

ORF_1 rf (1) (1600,2301)>>>

1561 gctttgttccttgggttcttgggagcagcaggaagcactatgggagcagcgtcaatgacg 1620
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1621 ctgacggtacagggcagacaattattgtctggtatagtgacagcagacaatttctg 1680
GACTGCCATGTCCGGTCTGTTAATAACAGACCATATCAGTCGTCGCTTGTAAACGAC

1681 agggctattgagggcgaacagcatctgttgcaactcacagtctggggcatcaagcagctc 1740
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1741 caggcaagaatcctggctgtggaagatacctaaggatcaacagctcctggggatttg 1800
GTCCGTTCTTAGGACCGACACCTTCTATGGATTCTTAGTGTGCGAGGACCCCTAAACC

1801 ggttgccttgaaaaactcatttgcaccactgctgtgccttggaaatgctagttggagta 1860
CCAACGAGACCTTTTGTAGTAAACGTTGACGACACGGAACCTTACGATCAACCTCATT

1861 aaatctctggaacagatttggaaatcacagcactggatggagtgagcagagaaattaac 1920
TTTAGAGACCTTGTCTAAACCTTAGTGTGCTGACCTACCTCACCTGTCTCTTAAATTG

1921 aattacaagcttaatacactccttaattgaagaatcgcaaaaccagcaagaaagaat 1980
TTAATGTGTTCAATATATGTGAGGAATTAACCTTCTTAGCGTTTTGGTCTGTTCTTTCTTA

1981 gaacaagaattattggaattagataaaatgggcaagtttgggaattggttacaataaca 2040
CTTGTCTTAATAACCTTAATCTATTTACCCGTTCAACACCTTAACCAATGTATTGT

2041 aattggctgtggtatataaaattatcataatgatagtaggagccttggtaggttaaga 2100
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2101 atagtttttgcgtactttctatagtgaaatagagtaggagggatattcaccattatcg 2160
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2161 tttcagaccacctcccaaccccgaggggaccgcagggcccgaaggaatagaagaaga 2220
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2221 ggtggagagagacagagacagatccattcogattagtgaaacgatctcgacggtatoga 2280
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2281 aagcttgggattcgaatttaaaagaaaagggggatttgggggtacagtcaggggaaag 2340
TTCGAACCTAAGCTTAAATTTCTTTTCCCCCTAACCCCATGTCACGTCCTCTTTC

2341 aaatagacataatagcaacagacatacaaaactaaagaactacaaaaaaaattacaaa 2400
TTATCATCTGTATATCGTGTCTGTATGTTGATTTCTTGATGTTTTGTTTAAATGTTT

hUbC prom (2433,3644)>>>

2401 aattcaaaaattttcgggtttttcgaacctagaggcctccgcgcggttttggcgctcc 2460
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2461 cgcggggccccctcctcagggcagcgtgccacgtcagacgaagggcgcagcagcgcg 2520
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2521 tcctgatccttccgcccggacgctcaggacagcggcccgtgctcctaagactcggcctt 2580
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2581 agaaccocagatcagcagaaggacattttaggacgggacttgggtgactctagggcact 2640
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2641 ggttttttccagagagcgaacagggcaggaagtagtcccttctcggcgattctgc 2700
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2701 ggagggatctccgtggggcgggtaacgcccgatgattatataaggacgcgccgggtgtggc 2760
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2761 acagctagttccgtcgcagccgggatttgggtcgcgggttcttgttttggatcgctgtga 2820
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2821 tcgtcaacttgggtgagtagcgggctgtgggctggcggggcttctcgtggccgcggggcgg 2880
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2881 ctcggtgggacggaagcgtgtggagagaccgcaaggcgtgtagctcgtgggtccgcgagca 2940
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3061 tggcggcgaagaaccaaggtcttggagccttcgctaatcgggaaagctcttatttcggg 3120
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3241 gtaccttgggagcgcgcgccctcgtcgtgtcgtgacgtcaccgcttctgttggcttata 3300
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3301 atgcagggtggggccacctgcccgttaggtgtgcccgttaggcttttctccgtcgcaggacgc 3360
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3361 agggttcgggctagggtagctctcctgaatcgacaggcgcgggacctctggtgagggg 3420
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3421 agggataagtgagcgtcagtttcttgggtcgggttttatgtacctatcttcttaagtage 3480
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3481 tgaagctccggttttgaactatgocctcggggttggcgagtggttttgtgaagttttt 3540
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3541 aggcaccttttgaatgtaatacttgggtcaaatatgtaatttctcagtgtagactagta 3600
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GFP reporter (3658, 4374) >>>
 |
 ORF_2 rf (1) (3658, 4431) >>>
 |

3601 aattgtccgctaaattctggccgtttttggctttttgttagacgctagccgccaccatg 3660
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3661 gtgagcaaggcagggagcgtttcaccggggtggtgcccacctcgtgagctggacggc 3720
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3721 gacgtaaacggccacaagttcagcgtgtccggcgagggcgagggcgatgccacctacggc 3780
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3781 aagctgaccctgaagtcactcgcaccaccggcaagctgcccgtgcccctggcccaccctc 3840
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3841 gtgaccacctgacctacggcgtgagtgcttcagccgctaccocgaccacatgaagcag 3900
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3901 caagacttctcaagtccgccatgccogaaggctacgtccaggagcgcacatcttcttc 3960
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3961 aaggacgacggcaactacaagaccgcccggaggtgaagttcagggcgacacctgggtg 4020
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4141 atcaaggtgaacttcaagatccgccacaacatcgaggacggcagcgtgacgctcgcggac 4200
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4261 ctgagcaccagtcocccctgagcaaaagcccaacgagaagcgcgatcacatggctctg 4320
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4321 ctggagttcgtgaccgccgggatcactctcggcatggacgagctgtacaaggaagc 4380

GACCTCAAGCACTGGCGGCGCCCTAGTGAGAGCCGTACCTGCTCGACATGTTCCCTTCG

4381 ggcgcgcgcgcgagcccgagccgagacgcccagagacgcccagagcgcgagcgtgaggtacccca 4440
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4441 gtgtggtggcctgcaggtgaattcactagtagcggtaggcctgtcgacgatcggggccc 4500
CACACCACCGGACGTCCACTTAAGTGATCATGGCCATCCGGACAGCTGCTATAGCCCGGG EcoRI EcoRV

4501 gggcgcgctggatcctctagactgcagctcgagtaccatcagcgtcccagactacgct 4560
CGCCGCGACCTAGGAGATCTGACGTCGAGCTCATGGGTATGCTGCAGGGTCTGATGCGA NotI
ApaI BamHI XbaI XhoI

SV40 prom (4578,4846) >>>

4561 tgagtttaaacacgcgtggtgtggaagtccccaggtccccagcaggcagaagtatgca 4620
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4621 aagcatgcatctcaattagtcagcaaccaggtgtggaagtccccaggtccccagcagg 4680
TTCGTACGTAGAGTTAATCAGTCGTTGGTCCACACCTTTCAGGGGTCCGAGGGTCCGTCC

4681 cagaagtatgcaagcatgcatctcaattagtcagcaaccatagtcggccccctaaactcc 4740
GTCTTCATACGTTTCGTACGTAGAGTTAATCAGTCGTTGGTATCAGGGGCGGGATTGAGG

SV40 origin (4745,4822) >>>

4741 gcccacccgccccctaaactcccaggttcggccccattctccggccccatggctgactaat 4800
CGGGTAGGGCGGGGATGAGGCGGGTCAAGGCGGGTAAGAGGCGGGTACCGACTGATTA SfiI

ORF_4 rf (3) (4812,5480) >>>

4801 tttttttatattatgcagagggcagggcggcctcctgagctattccagaagtatgt 4860
AAAAAAAAATAATACGTCCTCCGGCTCCGGCGGAGCCGGAGACTCGATAAGGTCTTCATCAC

puro marker (4881,5480) >>>

4861 aggaggttttttggaggccatgaccaggtacaagccccaggtgctcctcgccaccgcg 4920
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4921 acgacgtccctcgggcgtacgcaccctcgccggcggttcgcccactaccccgccacgc 4980
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4981 gccacaccgtgaccggaccgccacatcgagcgggtcaccagctgcaagaactcttcc 5040
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5041 tcacgcgctcgggctcgacatcggaaggtgtggtcgggacgacggcgccgcgggtgg 5100
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5101 cggctcggaccacgcgggagagcgtcgaagcggggcggtggtccgagatcgggccgc 5160
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5701 tgtgactgtgtttgtgacgcaacccccactggttggggcattgccaccacctgtcagc 5760
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5761 tcctttccgggacttttgcctttccccctccctattgccacggcggaactcatcgccgct 5820
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5821 gccttgcccgtgctggacaggggctcgctgtgtgggcaactgacaattccgtggtgtgt 5880
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5881 cggggaagctgacgtcctttccatggctgctcgctgtgtggcaacctggattctgccc 5940
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5941 ggacgtccttctgctacgtcccttcggcctcaatccagcggaccttccctcccgccg 6000
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delta_U3 other (6090, 6142)>>>

6061 cctttggccgctcccccctgtccggatggaaggcttaattcactcccaacgaataca 6120
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HIV-1_5_LTR other (6143, 6323)>>>

6121 agatctgctttttgctgtactgggtctctctggttagaccagatctgagcctgggagct 6180
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6181 ctctggctaaactaggaacccactgcttaagcctcaataaagcttgccctgagtgctca 6240
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6241 agtagtgtgtgcccgtctgtgtgtgactctggtaactagagatcccctcagaccctttta 6300
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6301 gtcagtgtgaaaaatctctagcagtagtagttcatgtcatottattattcagttattata 6360
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6361 acttgcaaaagaatgaatacagagagtgagaggaactgtttattgcagcttataatgg 6420
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6421 ttacaaaaaagcaatagcatcacaatttcacaaaaaagcatttttttccactgcattc 6480
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6481 tagttgtggtttgtccaaactcatcaatgtatcttatcatgtctgcatctatgtcgggt 6540
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6541 gcggagaaaagggtaatgaaatggcattatgggtattatgggtctgcattaatgaatgg 6600
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6601 ccaacgatcccgggtgaaataccgcacagatgcgtaaggagaaaaataccgcatcaggcg 6660
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6721 atcagctcactcaaaggggtaatacggttatccacagaatcaggggataacgcaggaaa 6780
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pBR322 origin (6829, 7448)<<<

6781 gaacatgtgagcaaaaaggccagcaaaaaggccaggaaccgtaaaaaggccgctgtgctggc 6840
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6841 gtttttccataggtcctcggccccctgacgagcatcacaataatcgacgctcaagtcagag 6900
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6901 gtggcgaaccccgacaggactataaagataccaggcgtttccccctggaagctccctcgt 6960
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6961 gcgctctcctgttccgacctgcccgttacccgataacctgtccgctttctccctcggg 7020
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7021 aagcgtggcgtttctcatagctcagcgttaggtatctcagttcgggttagtgctgttcg 7080
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7081 ctccaagctgggctgtgtgcaacccccctcagcccagcgcgtgccccttatccgg 7140
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7321 taccttgcgaaaaagattggtagctcttgatccggcaaaaccaccgctgtagcgg 7380
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7861 ggaagctagagtaagtagttccagtttaagtttgcgcaacggttggtaaaaggatc 7920
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7921 ttcacctagatccttttcaagtagaaagccagtcaccgaaacggtgctgacccccgatg 7980
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7981 aatgtcagctactgggctatctggacaagggaaaaacgcaagcgaagagaaagcaggta 8040
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NEOKAN prom (8101, 8150) >>>

8101 ccggaattgccagctggggcgccctctggttaagttgggaagccctgcaagtaaaactgg 8160
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Bcl I

8161 atggctttctcgcgccaaggatctgatggcgaggggatcaagctctgatcaagagaca 8220
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NTP_II marker (8242, 9030) >>>

ORF_3 rf (1) (8239, 9033) >>>

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CCTACTCTAGCAAAGCGTACTAATGTTCTACCTAACGTGCGTCCAAGAGGCCGGGCA

8281 tgggtggagaggctattcggctatgactgggcacaacagacaatcggtgctctgatgcc 8340
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8341 gccgtgttccggctgtcagcgcaggggcccgggttctttttgtcaagaccgacctgtcc 8400
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8461 gttccttgccagctgtgctcagctgtcaactgaagcgggaagggactggctgctattg 8520
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8521 ggcgaagtccggggcaggatctcctgtcatctcaccttgcctcgcgagaaagatcc 8580
CCGCTTACCGGCCCGTCTAGAGGACAGTAGAGTGGAAACGAGGACGGCTCTTTCATAGG

8581 atcatggctgatgcaatgcggcggtgcatacgttgatccggctacctgcccattcagc 8640
TAGTACCGACTACGTTACGCCCGGACGATGCGAACTAGGCCGATGGACGGGTAGCTG

8641 caccgaagcaaacatcgcatcgagcagcagctactcggatggaagccggctcttgctgat 8700
GTGGTTCGCTTTGTAGCGTAGCTCGCTCGTGCATGAGCCTACCTTCGGCCAGAACAGCTA

8701 caggatgatctggacgaagacatcaggggctcgcgcccagccgaactgttcgcccagctc 8760
GTCTTACTAGACCTGCTTCTCGTAGTCCCGGAGCGGTCGGCTTGACAAGCGGTCCGAG

8761 aaggcagcatgcccagcggcaggatctcgtcgtgacccatggcgatgctgcttgcgg 8820
TTCGGCTCGTACGGGCTGCCGCTCTAGAGCAGCACTGGGTACCGCTACGGACGAACGGC

8821 aatatcatggtgaaatggccgcttttctgattcatcagctgtggccggctgggtgtg 8880
TTATAGTACCACCTTTTACCGCGAAAAGACCTAAGTAGCTGACACCGGCCGACCCACAC

8881 cggaccgctatcaggacatagcgttggtaccgctgatattgctgaagagcttggcggc 8940
 GCCTGGCGATAGTCTGTATCGCAACCGATGGGCACATAACGACTTCTCGAACCGCCG

8941 gaatgggctgaccgcttcctcgtgctttacggtatcgccgctcccattcgagcgcac 9000
 CTACCCGACTGGCGAAGGAGCAGAAATGCCATAGCGGCGAGGGCTAAGCGTCCGGTAG

9001 gccttctatcgcttcttgacgagttcttctgaatttgttaaattttgttaaatacag 9060
 CGGAAGATAGCGGAAGAACTGCTCAAGAAGACTTAAACAATTTTAAAAACAATTTAGTC

9061 ctcaattttaaccaatagccgaaatcggaacatcccttataaatcaaaagaatagac 9120
 GAGTAAAAAATGGTTATCCGGCTTAGCCGTTGTAGGGAATATTAGTTTCTTATCTG

f1 origin(9138,9443)<<<
 |

9121 cgcgatagggttgagtgtgttccagtttgaacaagagtccactattaagaacgtgga 9180
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9181 ctccaacgtcaaagggcgaaaaaccgtctatcagggcgatggcccactacgtgaaccatc 9240
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9241 acccaaatcaagtttttgcggtcgaggtgcccgaagctctaaatcggaaccctaaagg 9300
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9301 gagccccgatttagagcttgacggggaaagcggcgaaacgtggcgagaaggaaggaa 9360
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9361 gaaagcgaaggagcggcgctagggcgctggcaagtgtagcggtcacgctgagcgtaac 9420
 CTTTCGCTTTCCTCGCCCGATCCCGCAGCGTTACATCGCCAGTGCACGCGCATTC

9421 caccacaccgcgcttaatgcccgcctacagggcgctccattccattcaggatcg 9480
 TGGTGTGGCCGCGAATTACGCGCGATGTCGCCGCGAGGTAAGCGGTAAGTCCTAGC

9481 aattaattcttaattaacatcatcaataatatacctt 9517
 TTAATTAAGAAATAATTGTAGTAGTTATTATATGGAA

Features

5'-LTR

Start: 486 End: 2177

Original Location Description:

486..2177

UbC Promoter

Start: 2433 End: 3644

Original Location Description:

2433..3644

GFP Reporter

Start: 3651 End: 4431

Original Location Description:

3651..4431

SV40 Promoter

Start: 4578 End: 4880

Original Location Description:

4578..4880

Puromycin

Start: 4881 End: 5480

Original Location Description:

4881..5480

3'-LTR

Start: 6566 End: 5481(Complementary)

Original Location Description:

complement(6566..5481)

Kanamycin

Start: 8239 End: 9030

Original Location Description:

8239..9030