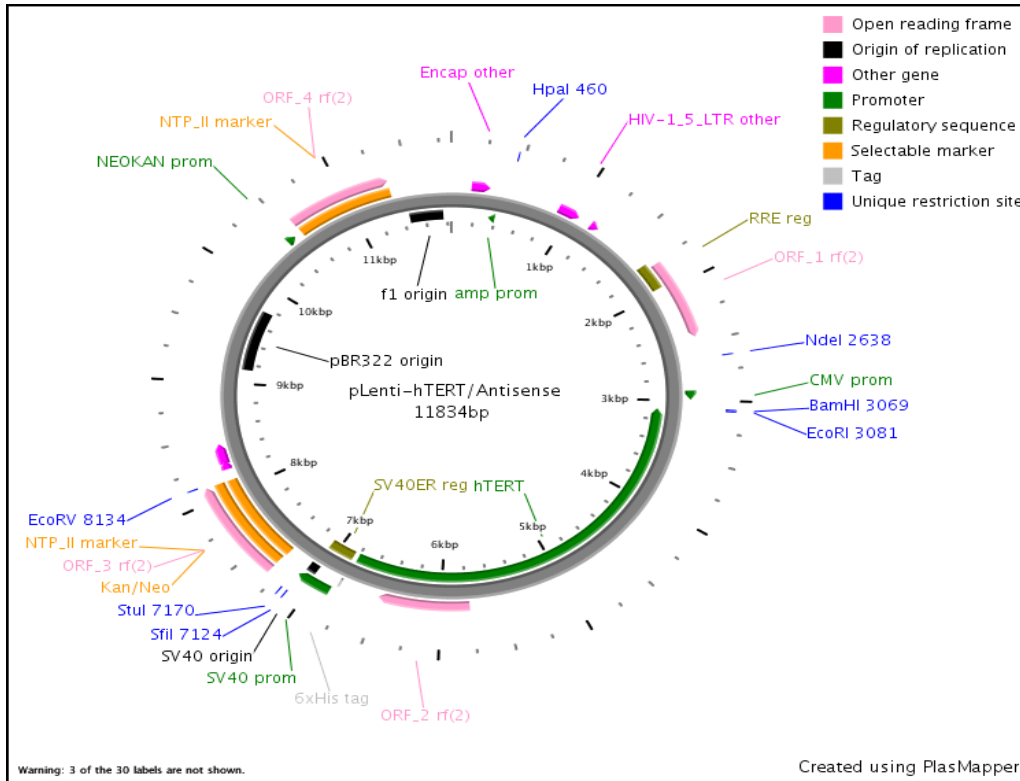


## Lenti-hTERT Antisense

Vector Name	Lenti-hTERT Antisense
VectorType	Lentiviral Vector
Antibiotic Information	Kan/Neo
Sequencing Primers	CMV sequencing primer (2922-2941) 5'---CGC AAA TGG GCG GATGGC GTG---3'
Cloning Sites	EcoRI



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## Text Map

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                                     Encap other (162, 310) >>>
                                     |
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721    ggagagaaaaagcaccgtgcatgcccattggtggaagtaagggtgtacgatcgtgcctta 780
      CCTCTCTTTTCGGTGGCAGTACGGCTAACACCTTCATTCACCATGCTAGCACGGAAAT

781    ttaggaaggcaacagacgggtctgacatggattggacgaaccaactgaattgccgcattgc 840
      AATCTTCCGTTGCTGCCCAGACTGTACCTAACCTGCTTGGTGACTTAACGGCGTAAAC

                                     HIV-1_5_LTR other (880, 1060) >>>
                                     |
841    agagatattgtatttaagtgcttagctcgatacataaacgggtctctctggttagaccag 900
      TCTCTATAACATAAATTCACGGATCGAGCTATGTAATTTGCCAGAGAGACCAATCTGGTC

901    atctgagcctgggagctctctggttaactagggaaacccactgcttaagcctcaataaagc 960
      TAGACTCGGACCTCGAGAGACCGATTGATCCCTTGGGTGACGAATTCGGAGTTATTTCG

961    ttgccttgagtgtctcaagtagtgtgtgcccgtctgttgtgactctggtaactagaga 1020

```

AACGGAACTCACGAGTTCATCACACACGGGCAGACAACACACTGAGACCATTGATCTCT

1021 tcctcagacccttttagtcagtggtgaaatctctagcagtgccgcccgaacagggact 1080  
AGGGAGTCTGGGAAATCAGTCACACCTTTTAGAGATCGTCACCGGGGCTTGTCCCTGA

1081 tgaagcgaaagggaaaccagaggagctctctcgacgcaggactcggttgctgaagcgc 1140  
ACTTTCGCTTTCCCTTTGGTCTCCTCGAGAGAGCTGCGTCTGAGCCGACGACTTCGCG

HIV-1\_psi\_pack other (1171,1215)>>>  
|

1141 gcacggcaagaggcgagggcgcgactggtgagtagcgcacaaaattttgactagcggag 1200  
CGTGCCGTTCTCCGCTCCCGCCGCTGACCACCTCATGCGGTTTTTAAACTGATCGCCTC

1201 gctagaaggagagagatgggtgagagcgtcagttattaagcgggggagaattagatcgc 1260  
CGATCTTCTCTCTTACCACGCTCTCGCAGTCATAATTCGCCCTCTTAATCTAGCG

1261 gatgggaaaaattcggttaagccaggggaaagaaaaataaaattaaacatatag 1320  
CTACCCTTTTTTAAGCAATTCGGTCCCTCTTTCTTTTTATATTTAATTTTGTATATC

1321 tatgggcaagcaggagctagaacgattcgcagttaatcctggcctgtagaacaatcag 1380  
ATACCCGTTCTGCTCCCTCGATCTTGCTAAGCGTCAATTAGGACCGACAATCTTTGTAGTC

1381 aaggctgtagacaaactgggacagctacaaccatcccttcagacaggatcagaagaac 1440  
TTCGACATCTGTTTATGACCCTGTCGATGTTGGTAGGGAAGTCTGCTTAGTCTTCTTG

1441 ttagatcattatataatacagtagcaaccctctattgtgtgcatcaaggatagagataa 1500  
AATCTAGTAATATATATGTCATCGTTGGGAGATAACACAGTAGTTCTCTATCTCTATT

1501 aagacaccaaggaagcttttagacaagatagaggaagagcaaaacaaaagtaagaccaccg 1560  
TTCGTGGTTCCTTCGAAATCTGTTCTATCTCCTTCTCGTTTTGTTTTCATTCTGGTGGC

1561 cacagcaagcgcgctgatcttcagacctggaggagagatagaggacaattgagaag 1620  
GTGTCGTTCCGGGACTAGAAGTCTGGACCTCCTCCTTATACTCCCTGTTAACTCTTC

1621 tgaattataaaataaaagtagtaaaaattgaaccattaggagtagcaccaccaaggc 1680  
ACTTAATATATTTATATTTTATCATTTTTAACTTGGTAATCCTCATCGTGGGTGGTCCG

RRE reg (1723,1956)>>>  
|

1681 aaagagaagagtggtgcagagagaaaaagagcagtggaataggagctttgttctcttg 1740  
TTTCTTCTCACCACGTCCTCTTTTTTCTCGTCAACCTTATCCTCGAAACAAGGAACC

ORF\_1 rf (2) (1766,2449)>>>  
|

1741 gttcttgggagcagcaggaagcaactatgggcgagcgtcaatgacgctgacggtacagge 1800  
CAAGAACCCTCGTCTCCTTCGTGATACCCGCGTGCAGTTACTGCGACTGCCATGTCCG

1801 cagacaattattgtctggtatagtgacgagcagacaatttctgtagggctattgagge 1860  
GTCTGTTAATAACAGACCATATCACGTCGTCGCTTGTAAACGACTCCCGATAACTCCG

1861 gcaacagcatctgttgcaactcacagtctgggcatcaagcagctccaggcaagaatcct 1920  
CGTTGTCGTAGACAACGTTGAGTGTGACACCCGCTAGTTTCGTCGAGGTCGGTCTTAGGA

1921 ggctgtgaaagatacctaagagatcaacagctcctgggatttggggttgcctgtgaaa 1980  
CCGACACCTTTCTATGGATTTCTAGTTGTCGAGGACCCCTAAACCCCAACGAGACCTTT

1981 actcatttgcaccactgctgtgccttgaatgctagtgtgagtaataatctctggaaca 2040  
TGAGTAAACGTTGGTGACGACACGGAACCTTACGATCAACCTCATTATTTAGAGACCTGT

2041 gatttggaaatcacagacctggatggagtgagagagaaattaacaattacacaagctt 2100  
CTAAACCTTAGTGTGCTGGACCTACCTCACCTGTCTCTTAAATGTTAATGTGTTTCGAA

2101 aatacactccttaattgaagaatcgcaaaaccagcaagaaagaatgaacaagaattatt 2160  
TTATGTGAGGAATTAACCTTCTTAGCGTTTTGGTCTGTTCTTTCTTACTTGTCTTAATAA

2161 ggaattagataaaatggcaagtttgtggaattggtttaacatacaaatggctgtggtgta 2220  
CCTTAATCTATTTACCCGTTCAAACACCTTAACCAAAATGATTTGTTAACCAGACACCAT



2221 tataaaattattcataatgatagtaggaggcttgtaggtttaagaatagttttgtctgt 2280  
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2281 actttctatagtgaaatagagtttaggcaggatattcaccattatcgtttcagaccacct 2340  
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2341 cccaaccccgaggggacccgacagggcccgaaggaaatagaagaagaaggtggagagagaga 2400  
GGTTGGGGCTCCCTGGGCTGTCCGGGCTTCCTTATCTTCTTCCACCTCTCTCTCT

2401 cagagacagatccattcgattagtgaaacggatctcgacggtatcgataaagctgggagtt 2460  
GTCTCTGTCTAGGTAAGCTAATCACTTGCCCTAGAGCTGCCATAGCTATTGCAACCTCAA

2461 ccgcggtacataacttacggttaaatggcccgcctggctgaccgcccacgacccccgccc 2520  
GGCGCAATGTATTGAATGCCATTTACCGGGCGGACCGACTGGCGGGTGTCTGGGGCGGG

2521 attgacgtcaataatgacgtatgttcccatagtaacgccaatagggactttccattgacg 2580  
TAACTGCAGTTATTACTGCATACAAGGGTATCATTTGCGGTTATCCCTGAAAGGTAAGTGC

NdeI  
|

2581 tcaatgggtggagtatttacggtaaactgcccacttggcagtagacatcaagtgtatcatat 2640  
AGTTACCCACCTCATAAATGCCATTTGACGGGTGAACCGTCATGTAGTTACATAGTATA

2641 gccaaagtagccccctattgacgtcaatgacggtaaatggcccgcctggcattatgccc 2700  
CGGTTTCATGCGGGGATAACTGCAGTTACTGCCATTTACCGGGCGGACCGTAATACGGGT

2701 gtacatgacctatgggactttcctacttggcagtagacatctacgtattagtcacgctat 2760  
CATGTACTGGAATACCTGAAAGGATGAACCGTCATGTAGATGCATAATCAGTAGCGATA

2761 taccatgggtgatgcggttttggcagtagacatcaatgggctggatagcggtttgactcaag 2820  
ATGGTACCCTACGCCAAAACCGTCATGTAGTTACCGCACCTATCGCCAAACTGAGTGC

2821 gggattccaagctccacccccattgacgtcaatgggagtttgttttggcaccacaaatca 2880  
CCCTAAAGGTTGAGGGTGGGTAAGTGCAGTTACCTCAACAAAACCGTGGTTTTAGT

CMV prom(2911,2992)>>>  
|

2881 acgggactttccaaaatgtcgtaaacactccgccccattgacgcaaatgggctgtaggag 2940  
TGCCCTGAAAGGTTTACAGCATTTGTGAGCGGGGTAAGTGCCTTACCCGCATCCGC

2941 tgtacggtgggaggtctatataagcagagctcgtttagtgaaccgtcagatcgccctggag 3000  
ACATGCCACCTCCAGATATATTCGTCTCGAGCAAATCACTTGGCAGTCTAGCGGACCTC

3001 acgcatccacgctgttttgacctcatagaagacaccggctagcgtttaaacttaagct 3060  
TGCGGTAGGTGCGACAAAACCTGGAGGTATCTTCTGTGGCCGATCGCAAATTTGAATCGA

hTERT (3085, 6800)<<<  
|  
BamHI                  EcoRI  
|                          |                  |

3061 tggtagcggatccactagtgaaattcccacctcggtcgcggtcgacacccccctcacttc 3120  
ACCATGGCCTAGGTGATCACTTAAGGGTGGAGCCGAGCGCCAGCCTGTGGGGAAAGTGAAG

3121 tgccgtccacacgacctgtgagtgoggaaccgacctgtgagcagtcggagtcggcctg 3180  
ACGGCAGGTGTGCTGGACACTCAGCCCTTGGCTGGACACTCGCTCAGGCCTCAGCCGGAC

3181 tgagtcggaagtcggcctgtacgtccggagccggtttgtgagtgagtcggagtcctgag 3240  
ACTCAGCCTTCAGCCGGACATGCAGGCCTCGGCCAAACACTCACTCAGGCCTCAGACTCC

3241 gtgccacgccccgacccacacccggcggggagggagggacctgcatctcgggcccgcac 3300  
CAGCGGTGCGGGCCTGGGTGTGGGCCGCCCTCCCTCCCTGGGACGTAGAGCCCGCGGTG

3301 tgtcccagcagccacagacgagagccggaccgacaccgcccacccggtagtcaggtccta 3360  
ACAGGGCTGCTGGTGTCTGCTCTCGGCCTGGCTGTGGGGGGTGGCCATCAGTCCAGGAT

3361 ccagaattcagactccgctacggcccaaccgacccgaggtcccgtcagtcagca 3420  
GGTCTGAAGTCTGAGGGCAGTCCGGGTGGCTGCGGCCTCCAGGGCAGTCCAGCTCGT

3421 ggggcoctcgaaggctgagtcgacgcagacccgacaggactcactggggtcctcaccgtg 3480  
CCCCGGGAGCTTCCGACTCAGCTGCGTCTGGGCTGTCCAGTGACCCAGGAGTGGCAC

3481 catccactgtgccacagctcagtcgaactcgtccttacgaaccaccgtgtcggtgacgtg 3540  
GTAGGTGACACGGTGTGAGTCACTTGTAGCAGGAATGCTTGGTGGCACAGCCACTGCAC

3541 ccggagcctcccgtctcccggccgcccgggaaaccgggggtcgtgtagggacgaagaa 3600  
GGCCTCGGAGGGCAGAGGCCGGCGCGCCCTTGGCCCCAGCGACATCCCTGCGTCTCT

3601 ccgaaagtccctacctcatcgtctccctccggcacagtcctctactgcgctcctttttaca 3660  
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3661 ccccaagaaggtttgaacgactactttaccctcgacgtcgtgtgtaacgactttggacat 3720  
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3721 ggggacgtcgtcctcctagaaacatctacaaccacgtgtggcagacctccgacaagtggac 3780  
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3781 gtttaggtctttgtccgacactgtgaagtcggcgttctcggggtttctcaaacgctcgtgta 3840  
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3841 caaggagggtcggaaacttcggcgccaacttccactctgaccgagactacctccaggcccg 3900  
GTTCCTCCAGCCTTGAAGCCGGTTGAAGGTGAGACTGGCTCTGATGGAGGTCCGGGC

3901 tatcgacctcatcagcgagactgagggtcccaggccca taggtcgtcgtccggcgtggt 3960  
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3961 ccccttatccggcaccggccgctagactgttttcggcaagggtgggtcccgggacagaag 4020  
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4021 atgtccctcaagtggtgacagaaggcgttcaagtggtgctcgggtatgagtcctcgtg 4080  
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4081 agcctggtcccaggactccttccaaaagcgcacccactccactccacagtggtgttctt 4140  
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4141 tagtaggtggtttgctcctcgtcggcagggcggttagggcggtttgtcgaacaagag 4200  
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4381 ccgtagggtgctcccagcagaggacgtccactcgtgcttgacagcgtacatgcccag 4440  
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4441 ctccagacagttccatctctgcaccgagaacttccggaacgcctgcacgggtaccgccc 4500  
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4501 gaagacctggtgcccgtatggtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtcgtc 4560  
CTTCTGGACCACGGCATAACGACGCACGCAGTACGTGTTCTGGGGTTTGTATGATGTGGC

4561 ctactggaggcactcggacaggacccccctaccacagcatgcccgggcagtgtaggtggaa 4620  
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4621 ctgtttcattgctcagtcgcccccaggaaccggcggtgctcgtcgtcgtcgtcgtcgtcgt 4680  
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4681 ccgggacacctatagcaggtccgggtcgtgtctccggggtcctccggccccggcgcg 4740  
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4741 ggcgagcatcaactcgtgcgacttgcacggaagtgggagctccactctcggagccggga 4800  
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4801 gaaaagagacgccttgcaagaccgagggctgctgcatcaggtacaagtgttagccggcgtc 4860  
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4861 gggcagtcgcaaccctacttctgcctcagacctgcagtcgtcccgccggaccgaagggc 4920  
CCCGTCAGGCTTGGGGATGAAGCGGAGTCTGGACGTCAGCAGGGCGGGCTGGCTTCCCG

4921 tacgacggactggagacgaaggctgtcgagggcgctcgacgtgggagaagttaacgacaga 4980  
ATGCTGCCTGACCTTGCTTCCGACAGCTCCCGCAGCTGCACCCTTCAAGTGCTGTCT

4981 ctaaggttacgaaacgttgaaacgaggtctgtgagaaggccatctttttctcggacaagaa 5040  
GATTCCAATGCTTTGCAACTTGCTCCAGACACTTCCGGTAGAAAAAGACCTGTCTT

5041 aactttgacaccagggcactgtatctttcttctggactcgtcgagctgctgcatgtgtga 5100  
TTGAAACGTGGTCTCCGTGACATAAAAGAAAGACCTGAGCAGCTCGACGACGTACACACT

5101 gtagtcggtcacgtccttgaaccggctcctagaggagtgcgtctgccacgagacgcccggcc 5160  
CATCAGCCAGTGCAGGAACCTGGCCAGGATCTCCTCACGCAGACGGTGTCTGCGGCCCG

5161 ttgtgtcggttggggaccgaggaacgctcgttccgctcagggcgtgcgagtagaaggt 5220  
AACACAGCCAACCCCTGGGCTCCTGCGCAGCCAAGCGCAGTCCCGCAGCTCATCTTCCA

5221 gcagtcgaggacgtcgtctcgaaccgtacgaaggggtccctctacttgaagaaccacaa 5280  
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5281 ggactccttcgcccgaagcaaacacggacctcgggggtctcggacccccgtggtcggccgc 5340  
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5341 gtccgtccggcgtgcttccgcatgtggaacgggtcccgacgacacgaccgctcgtcgac 5400  
CAGGCAGGCCCGCACGAAGCCGTACACTGCCAGGGGCTGCTGTGCTGGCGGAGCAGCTG

5401 gtggtccgctgccccagacacaggaggagagccccggcgggtgtctcgggacccccgaa 5460  
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5461 gaggcccggtgtctgtggccgacgacccccactggcgtcagcgtcggcgtcagcagaa 5520  
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5521 ctctcgtggggcaccccgtgacgacgacccaaggggttcgtcgaggtctttgtccccggc 5580  
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5581 gtaaacggtcacgacgacccccgtcggccccgttggacgccccctcagggacgtaggtccc 5640  
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5641 ggaccttgggtctttctaccagaggtgctcggaggctcgggctcagtcgacccggagtc 5700  
CCTGGAACCCAGAAAGATGGTCTCCACGAGCCTCCGAGCGCCAGTCAGGCTGGGCCCTAG

5701 tctcgaactcctctcctccggcgtcagcaggaacagcggactcctcctcctcctcctc 5760  
AGAGCTGAGTAGGAAGGAGGGCCGACGTGCTCCTTGTGCTGAGGAGTAGAGGAAGTG

ORF\_2 rf (2) (5774, 6499) >>>  
|

5761 gaaccagagccgcatgtggccccctgttcgacagggctccctgcaaccacggcgttaca 5820  
CTTGGTCTCGGCTACACCGGGGACAAGCGTGTCCAGGGACGTGGTGGCCGCGATGT

5821 cctacccccggggcgcaccaacgacccgggtgctaccaccctcaccgacgacggtct 5880  
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5881 ctccgctgggaggtttctccaccgaagaagccgccccagaccgtccactgtggtgtgtct 5940  
GAGCGCACCTCCAAGAGGTGGCTTCTTCGGCGGGTCTGGCAGGTGACACCACACAGAA

5941 tgggtccagtgagccaggtgacgagcagggcccccgggtcctggggacgggttccc 6000  
ACCACGGTCACTCGGTCCACGCGTCTGCCCCGGTGGGCCAGGACCCCTGCCCAACGGG

6001 gcaggcagggccgagtcgccgctcgggtcggacccggagaaaccggttggcgtctgaagc 6060  
CGTCCGCTCCGGCTCAGGGGCAGCGCCACGCCTGGGCTCTTGGGCAACGGCAGACTTCG

6061 cgaccgtgacggggcgcgaggagcgtgggccccgaccgctccgggtccccctggggccg 6120  
GCTGGCACTGCCCCCGCCTCCTCGCACCCGGGCTGGCAGGCCAGGGGGACCCCGGC

6121 gagggactcgataccaaggtccgggcaagcgtagggtctgcggaagcccaggtgatcg 6180  
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6181 cacacgccccccggccggactcaccgtcgcggtcgacatgtcgccgccccggtgtg 6240  
GTGTGGCGGGGGCCGGCCTGAGTGGCAGCGCCGAGCTGGTACAGCGGCGGCCGACAC

6241 gaccatccgctcgaccctcggtggtcgtgtttctcgcgctgcacaggtcgtccacttg 6300  
CTGGTAGGCGCAGCTGGGAGCCACCAGCACAAAGAGCGCGCAGCGTGCCAGCAGGTGAAC

6301 gtcgtgcagcagcgggtgcgcgcgctcgtcgtcgggggtgcggggcgagggggcgtaacg 6360  
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6361 cagccagtgggcacaaccctccatcgacgcgtgcgaccaccacttccggagcccccccg 6420  
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6421 gggcgccccgggaggtcgtcgcgcttcggcttcggctcgtgcaagaagcgcgccgag 6480  
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6481 cgtgtcggagacgtcgtgagccgggtggtcgaggaagtcctcctcgtgagccgcttcc 6540  
GCACAGCTCTGCAGCAGCTCGGGCCACCAGTCTTTCAGGCAGGACACTGGCGGAAGGA

6541 cccccgcgcccccccgccgcaagcaggggtcccgctcgtgtggtccgtgacccggtggtc 6600  
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6601 gcgcgcttttcggcgccagggggcgcgacgtggtcggcggtcgggaccccggggtccgc 6660  
CGCGCGGAAGCCCGCGGTCCCGCGCTGCACCAGCCGCGCCCTGGGGCCCCAGGCG

6661 ggcgtgcttgcaaccggtcgcgctcgtgagcgccatcaccgacgcgctcgtccctcgcgtg 6720  
CCGCACGAACGTGGCCAGCGGCAGCACCTCGCGGTAGTGGCTGCGCAGCAGGGAGCGCAC

6721 ccgagccgtcgcacctcgcgcgctagcgcacctcccgccccgggtccccaagggtgca 6780  
GGCTCGGCAGCGGGAGCGCGCGGCATCGCGGGGTGGCCGGGGCCAGGGCTTCCACGT

6xHis tag (6818, 6835) >>>

|

6781 cgcgtcgtcctcgtcgcgacggacctaggtcgcgacatcatcaccatcaccattgatg 6840  
GCGCAGCAGGACGCAGCGCTGCCTGGGATCCGAGCTCGTAGTAGTGGTAGTGGTAACTAC

SV40 prom (6869, 7137) >>>

|

SV40ER reg (6846, 7082) <<<

|

6841 atccggctgtggaatgtgtcagttagggtgtggaagtccccaggtccccagcaggc 6900  
TAGGCCGACACCTTACACACAGTCAATCCCACACCTTTCAGGGGTCCGAGGGTTCGTCCG

6901 agaagtatgcaaagcatgcatctcaattagtcagcaaccaggtgtggaagtccccaggc 6960  
TCTTCATACGTTTCGTACGTAGAGTTAATCAGTCGTTGGTCCACACCTTTCAGGGGTCCG

6961 tccccagcaggcagaagtagtcaaagcatgcatctcaattagtcagcaaccatagtcocg 7020  
AGGGTTCGTCCGTTTCATACGTTTCGTACGTAGAGTTAATCAGTCGTTGGTATCAGGGC

SV40 origin (7036, 7113) >>>

|

7021 ccctaactccgcccacccgcccctaactccgcccagttccgcccattctccgcccacat 7080  
GGGGATTGAGGCGGGTAGGGCGGGGATTGAGGCGGGTCAAGGCGGGTAAGAGGCGGGGTA

SfiI

|

7081 ggctgactaattttttttatgagagccgagggccgctcgtcgtcgtatc 7140  
CCGACTGATTAATAAATAAATACGTCCTCCGGCTCCGGCGGAGCCGGAGACTCGATAAG

StuI

|

7141 cagaagtgtgaggaggcttttttgaggcctagtgaccagatctaatgcgttetaatgc 7200  
GTCTTCATCACTCCTCCGAAAAACCTCCGGATCACTGGTCTAGATTACGCAAGATTACG

7201 gtaccagatctaatgcgtgctagcgaccagatctaatgcgtgctaggcccttttgcaaaa 7260

CATGGTCTAGATTACGCACGATCGCTGGTCTAGATTACGCACGATCCGGGAAAACGTTTT

ORF\_3 rf (2) (7319, 8113) >>>

|  
Kan/Neo (7311, 8106) >>>

7261 agcttgggctgcaggtcgaggcggatctgatcaagagacaggatgaggatcgtttcgcat 7320  
TCGAACCCGACGTCAGCTCCGCCTAGACTAGTTCTCTCTACTCTAGCAAAGCGTA

NTP\_II marker (7322, 8110) >>>

7321 gattgaacaagatggattgcacgcaggttctccggccgcttgggtggagaggetattcgg 7380  
CTAACTTGTCTACCTAACGTGCGTCCAAGAGGCCGGCGAACCCACTCTCCGATAGCC

7381 ctatgactgggcacaacagacaatcggtgctctgatgcgcgctgttcoggetgtcagc 7440  
GATACTGACCCGTGTGTCTGTAGCCGACGAGACTACGGCGGCACAAGGCCGACAGCTCG

7441 gcagggggcccccgttcttttttcaagaccgacctgtccgggtgacctgaatgaactgca 7500  
CGTCCCGCGGGCCCAAGAAAACAGTTCTGGCTGGACAGGCCACGGGACTTACTTGACGT

7501 ggacgaggcagcgcgggctaactgtggtggccacgacgggcttcccttgcgcagctgtgct 7560  
CCTGCTCCGTGCGCGCATAGCACCGACCGGTGCTGCCCGCAAGGAACGCGTCGACAGCA

7561 cgacgttgtcactgaagcgggaaggactggctgctattggcgcaagtgcggggcagga 7620  
GCTGCAACAGTACTTCGCCCTTCCCTGACCGACGATAACCCGCTTACGGCCCGCTCT

7621 tctcctgtcatctcaccttctcctgcccagagaagatccatcatggctgatgcaatgcg 7680  
AGAGGACAGTAGAGTGAACGAGGACGGCTCTTTCATAGGTAGTACCGACTACGTTACGC

7681 gcggtgcatacgttgcacggctacctgcccattcgaccaccaagcgaacatcgcat 7740  
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7741 cgagcagcagcgtactcggatggaagcggctcttctcgcacagcagctagcttactagacctgcttct 7800  
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7801 gcatcaggggctcgcgccagccgaactgttcgcccaggtcaaggcgcgatgcccgcagc 7860  
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7861 cgaggatctcgtcgtgacctggcgatgcctgcttgcgaatatcatggtggaaaatgg 7920  
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7921 ccgcttttctggattcactgcactgtggccggtgggtgtggcggaccgctatcaggacat 7980  
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8041 cgtgcttaccggtatcgccgctccgattcgcagcgcacgcttctatcgcttcttga 8100  
GCACGAAATGCCATAGCGCGGAGGGCTAAGCGTCGCGTAGCGGAAGATAGCGGAAGAAT

EcoRV

|  
8101 cgagttctctgagcgggactctggggttcgatcttagcagaccagatctaattgctgctc 8160  
GCTCAAGAAGACTCGCCCTGAGACCCCAAGCTATAGATCGCTGGTCTAGATTACGCACG

delta\_U3 other (8207, 8259) >>>

|  
8161 aaggcagctgtagatcttagccactttttaaagaaaaggggggactggaaggctaat 8220  
TTCCGTCGACATCTAGAAATCGGTGAAAAATTTCTTTTCCCCCTGACCTTCCCGATTAA

HIV-1\_5\_LTR other (8260, 8440) >>>

|  
8221 cactcccaacgaagacaagatctgctttttgcttactgggtctctctggttagaccag 8280  
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8281 atctgagcctgggagctctctggtactagggaaaccactgcttaagcctcaataaagc 8340  
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8341 ttgccttgagtgttcaagtagtgtgtgcccgctctgttgtgtgactctgtaactagaga 8400  
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8401 tcctcagacccttttagtcagtggtgaaaatctctagcagtagtagttcatgtcatott 8460  
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8701 tctctgagtaggtgtcattctattctgggggtgggggtggggcaggacagcaagggggag 8760  
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9061 tacggttatccacagaaacaggggataaacgcaggaaagaacatgtgagcaaaagccagc 9120  
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pBR322 origin (9146, 9765) <<<  
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9241 aaagataaccaggcgtttccccctggaagctccctcgtgctctctctgttccgacctgc 9300  
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NEOKAN prom(10418,10467)>>>  
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10381 atagctagactgggctgttttatggacagcaagcgaaccggaattgccagctggggcgcc 10440  
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NTP\_II marker(10559,11347)>>>  
|  
ORF\_4 rf(2)(10556,11350)>>>  
| |

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## Features

Misc. Feature (4 total)  
 CMV Promoter  
 Start: 2451 End: 3020  
 Original Location Description:  
 2451..3020  
 hTERT  
 Start: 3086 End: 6800  
 Neo/Kan  
 Start: 7312 End: 8106  
 Original Location Description:  
 3632..4426  
 3'-LTR  
 Start: 8228 End: 8517  
 Original Location Description:  
 4548..4837