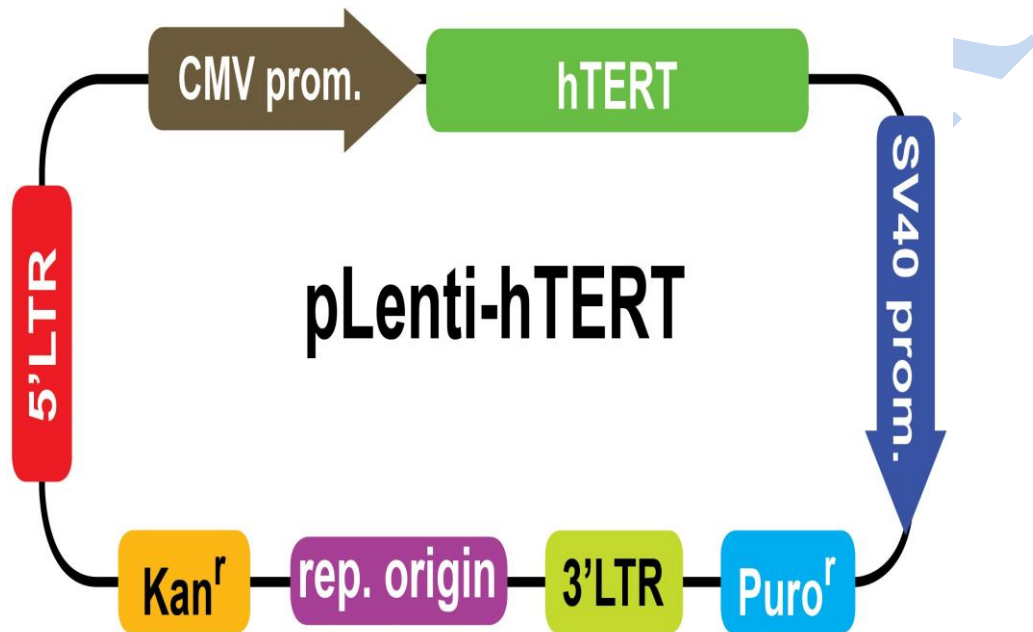


pLenti-hTERT

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VectorType	Lentiviral Vector
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Cloning Sites	EcoRI



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Gentaur Molecular Products
 Voortstraat 49
 1910 Kampenhout, Belgium

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      ACAATGAGTATCGCGCATTATGCCGCTGGAGTCGCGATCTAATAACTTCGTAATAGTC

                                     amp prom(365,393)<<<
                                     |
361    ggttattgtctcatgagcggatacatatttgaatgtatttagaaaaataaacaataggg 420
      CCAATAACAGAGTACTCGCCTATGTATAAACTTACATAAATCTTTTATTGTTTATCCC

                                     HpaI
                                     |
421    gttccgcgcacatttccccgaaaagtgccacctgacgttaactataacggctcctaaggt 480
      CAAGGCGCGTGTAAAGGGGCTTTTCACGGTGGACTGCAATTGATATTGCCAGGATTCAT

481    gcgaaagctcagatctggatctcccgatccccatggctogactctcagtacaatctgctc 540
      CGCTTTCGAGCTAGACCTAGAGGGCTAGGGGATACCAGCTGAGAGTCATGTTAGACGAG

541    tgatgccgcatagttaagccagtatctgctccctgcttgggtgtggtggaggctcgctgagta 600
      ACTACGGCGTATCAATTCGGTCATAGACGAGGGACGAACACACAACCTCCAGCGACTCAT

601    gtgctgagcaaaaatttaagctacaacaaggcaaggcttgaccgacaattaatgtagtct 660
      CACGCGCTCGTTTTAAATTCGATGTTGTTCCGTTCCGAAGTGGCTGTTAATTACATCAGA

661    tatgcaatactctttagtcttgaacatggtaacgatgagtttagcaaatgccttaca 720
      ATACGTTATGAGAACATCAGAACGTTGTACCATTGCTACTCAATCGTTGTACGGAATGTT

721    ggagagaaaaagcaccgtgcatgcogattggtggaagtaagggtgtacgatcgtgcctta 780
      CCTCTCTTTTTCGTGGCAGTACGGCTAACACCTTCATCCACCATGCTAGCACGGAAT

781    ttaggaaggcaacagacgggtctgacatggattggacgaaccactgaattgccgcattgc 840

```

AATCCTTCGTTGTCTGCCAGACTGTACCTAACCTGCTTGGTGACTTAACGGCGTAACG

HIV-1_5_LTR other(880,1060)>>>

|
841 agagatatattgtatttaagtgccctagctcgatacataaacgggtctctctggttagaccag 900
TCTCTATAACATAAATTCACGGATCGAGCTATGTATTTGCCAGAGAGACCAATCTGGTC
901 atctgagcctgggagctctctggtaactagggaaacccaactgcttaagcctcaataaagc 960
TAGACTCGGACCCCTCGAGAGACCGATTGATCCCTTGGGTGACGAATTCGGAGTTATTTCG
961 ttgccttgagtgcttcaagtagtggtgcccgtctgttggtgactctggtaactagaga 1020
AACGGAACTCACGAAGTTCATCACACACGGGACAGACAACACTGAGACCATTGATCTCT
1021 tcctcagacccttttagtcagtggtgaaaatctctagcagtgccgcccgaacagggact 1080
AGGGAGTCTGGGAAAATCAGTCACACCTTTTAGAGATCGTCACCGCGGGCTTGTCCCTGA
1081 tgaagcgaagggaaaccagaggagctctctcgacgcaggactcggcttgctgaagcgc 1140
ACTTTCGCTTTCCTTTGGTCTCCTCGAGAGAGCTCGCTGAGCCGAACGACTTCGCG

HIV-1_psi_pack other(1171,1215)>>>

|
1141 gcacggcaagaggcgagggggcgagctggtgagtagcggcaaaaattttgactagcggag 1200
CGTGCCGTTCTCCGCTCCCGCCGCTGACCACTCATGCGGTTTTTAAACTGATCGCCTC
1201 gctagaaggagagagatgggtgagagcgtcagttattaagcgggggagaattagatcgc 1260
CGATCTTCCTCTCTACCCACGCTCTCGCAGTCATAATTCGCCCTCTTAATCTAGCG

NruI

|
1261 gatgggaaaaaattcggttaagggcaggggaaagaaaaataaaattaaacatatag 1320
CTACCCCTTTTTAAGCCAATTCGGTCCCCCTTCTTTTTATATTAATTTGTATATC
1321 tatgggcaagcagggagctagaacgattcgcagttaatcctggcctgtagaaacatcag 1380
ATACCCGTTTCGCTCCCTCGATCTTGCTAAGCGTCAATTAGGACCGACAATCTTTGTAGTC
1381 aaggctgtagacaataactgggacagctacaaccatcccttcagacaggatcagaagaac 1440
TTCGACATCTGTTTATGACCCTGTCGATGTTGGTAGGGAAGTCTGCTTAGTCTTCTTG
1441 ttagatcattatataatacagtagcaaccctctattgtgtgcatcaaggatagagataa 1500
AATCTAGTAATATATATGTCATCGTTGGGAGATAACACACGTAGTTTCTATCTCTATT
1501 aagacaccaaggaagcttttagacaagatagaggagagcaaaacaaaagtaagaccaccg 1560
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1561 cacagcaagcggcctgatcttcagacctggaggaggagatagaggacaattgagaag 1620
GTGTCGTTTCGCGGCGACTAGAAGTCTGGACCTCCTCCTTATACTCCCTGTTAACTCTTC
1621 tgaattatataataataaagtagtaaaaatgaaccattaggagtagcaccaccaaggc 1680
ACTTAATATATTTATATTTTCATCATTTTTAACTTGGTAATCCATCGTGGGFGGTCCG

RRE reg(1723,1956)>>>

|
1681 aaagagaagagtggtgcagagagaaaaagagcagtgggaaataggagctttgttccttg 1740
TTTCTTCTTCCACCAGTCTCTTTTTTCTCGTACCCTTATCCTCGAAACAAGGAACC

ORF_3 rf(2)(1766,2449)>>>

|
1741 gttcttgggagcagcaggaagcactatgggcccagcgtcaatgacgctgacggtacaggc 1800
CAAGAACCCTCGTCGTCCTTCGTGATACCCGCGTCGCAGTTACTGCGACTGCCATGTCCG
1801 cagacaattattgtctggtatagtgagcagcagacaataattgctgagggtattgaggc 1860
GTCTGTTAATAACAGACCATATCACGTCGTCGTCCTTGTAAACGACTCCCGATAACTCCG
1861 gcaacagcatctgttgcaactcacagtctgggcatcaagcagctccaggcaagaatcct 1920
CGTTGTCGTAGACAACGTTGAGTGTGAGACCCCGTAGTTTCGTCGAGGTCCGTTCTTAGGA
1921 ggctgtggaagatacctaaggatcaacagctcctggggatttggggtgctctggaaa 1980
CCGACACCTTCTATGATTTCTAGTTGTGCGAGGACCCCTAAACCCCAACGAGACCTTT

1981 actcatttgaccactgctgtgccttggaatgctagttggagtaataaatctctggaaca 2040
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2041 gatttggaaatcacacgacctggatggagtgaggacagagaaattaacaattacacaagctt 2100
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2101 aatacactccttaattgaagaatcgcaaaaccagcaagaaaagaatgaacaagaattatt 2160
 TTATGTGAGGAATTAACCTTCTTAGCGTTTTGGTCGTTCTTTTCTTACTTGTCTTAATAA

2161 ggaattagataaaatgggcaagtttgggaattggtttaacatacaaaatggctgtggta 2220
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2221 tataaaattattcataatgatagtaggagcttggttaggtttaagaatagtttttctgt 2280
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2281 actttctatagtgaatagagtttaggcaggatattcaccattatcgtttcagaccacct 2340
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2341 cccaaccccgaggggaccgacaggcccgaaaggaatagaagaagaaggtggagagagaga 2400
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2401 cagagacagatccattcgattagtgacggatctcgacggtatcgataagcttgggagtt 2460
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2461 ccgcgttacataacttacggtaaatggcccgctggctgaccgcccacgacccccgccc 2520
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2521 attgacgtcaataatgacgtatgttcccatagtaacgccaatagggactttccattgacg 2580
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NdeI

2581 tcaatgggtggagatattacggtaaactgcccacttggcagtcacatcaagtgtatcatat 2640
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2641 gccaaagtaagcccccattgacgtcaatgacggtaaatggcccgctggcattatgccca 2700
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2701 gtacatgaccttatgggactttcctacttggcagtcacatctactgatttagtcatcgctat 2760
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2761 taccatgggtgatgcggttttggcagtcacatcaatgggctggatagcggtttgactcaag 2820
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2821 gggatttccaagtctccaccccattgacgtcaatgggagtttgttttggcaccaaaatca 2880
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ORF_4 rf (2) (2927, 3715) >>>

|

CMV prom(2911, 2992) >>>

| |

2881 acgggactttccaaaatgtcgtaaacactccgccccattgacgcaaatgggcggtaggcg 2940
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2941 tgtacggtgggaggtctatataagcagagctcgtttagtgaaccgctcagatcgccctggag 3000
 ACATGCCACCTCCAGATATATTCGTCTCGAGCAAATCACTTGGCAGTCTAGCGGACCTC

3001 acgccatccacgctgtttgacctccatagaagacaccggctagcgtttaaacttaagct 3060
 TCGGGTAGGTGCGACAAAACCTGGAGGTATCTTCTGTGGCCGATCGCAAATTTGAATCGA

EcoRI

|

KpnI ORF_7 rf (6) (3075, 3758) <<<

| | |

3061 tggtagcggatccactagtgaattccaggcagcgtgctgctgctgctgcgcagctgggaag 3120
 ACCATGGCCTAGGTGATCACTTAAGTCCGTCGCGACGACGAGGACGACGCTGCACCTTC

ORF_5 rf(3) (3144,6542)>>>

3121 ccctggccccggccacccccgcgatgcccgcgcgctccccgctgccgagccgctgcctccc 3180
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3181 tgetgcgcagccactaccgcgaggtgctgcccgtggccacgttcgtgcggcgctggggc 3240
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3241 cccagggctggcggtggtgcagcgcggggaacccggcggettcccgcgcgctggtggccc 3300
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3301 agtgctggtgctgctgcccgtgggacgcaaggccgcccccccgccgccccctcttccgccc 3360
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3361 aggtgtcctgctgaaggagctggtggcccagtgctgcagaggctgtgcgagcgcgggcg 3420
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3421 cgaagaactgctggccttcggettccgctgctgagcggggcccggggggcccccccg 3480
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3481 aggccttaccaccagcgtgcgcagctaccctgcccacacggtagccgacgcaactgggg 3540
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3541 ggagcggggcgtggggctgctgctgcgcgcgctggggcagcagctgctggttcaactgc 3600
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3601 tggcacgctgcgcgctcttctgctggtggtccagctgcgcctaccaggtgtgcgggc 3660
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3661 cgcctgttaccagctcggcgtgcccactcaggccccggccccccgcccacagctagtggac 3720
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3721 cccgaaggcgtctgggatgcgaacgggctggaaccatagcgtcaggagggccggggctcc 3780
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3781 ccctgggctgcagccccgggtgcgaggaggcggggggcagtgccagccgaagtctgc 3840
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3841 cgtgcccgaagggcccaggcgtggcgtgcccctgagccggagcggacgcccgttgggc 3900
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3901 aggggtcctgggcccacccgggaggacgctggaccagtgaccgtggttctctgtgtgg 3960
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3961 tgtcacctgcccagaccgcccgaagaagccacctcttggagggtgcgctctctggaacgc 4020
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4021 gccactcccaccatccgtgggcccagcaccacgcccggccccccatccacatcgcggc 4080
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4081 caccacgtccctgggacacgccttgcctcccggtgtaagcogagaccaagcaacttctct 4140
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ORF_6 rf(6) (4179,5399)<<<

4141 actcctcagggcacaaggagcagctgcggccctccttactactcagctctctgaggccca 4200
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4321 ttctggagctgcttgggaaccacgcccagtgcccctacggggtgctctcaagacgcaact 4380
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4381 gccctgctgcgagctgcggtaaccccagcagccggtgtctgtgcccgggagaagcccagg 4440

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4501 gccagcacagcagcccctggcaggtgtacggettcgtgcgggcctgctgcccggctgg 4560
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4561 tgccccaggcctctggggetccaggcacaacgaacgcgcgttctcaggaacaccaaga 4620
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4621 agttcatctccctggggaagcatgccaagctctcgtgcaggagctgacgtggaagatga 4680
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4741 agcaccgtctgctgaggagatcctggccaagttcctgcactggctgatgagtggtgtaag 4800
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5761 tgacacctcacctcaccacgcgaaaaccttcctcaggacctggtccgaggtgtccctg 5820
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5941 tgctgtggatacccggacctggaggtgcagagcgcactactccagctatgcccggacct 6000
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6061 aactctttgggtcttgccggtgaagtgtcacagcctgtttctggatttgcaggtgaaca 6120
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6301 ggatgtcgtggtgggccaagggcgccgcccctctgcccctcagggccgctgcaagtggc 6360
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6721 ggccctgagcagtggtccagccaaggtgagtggtccagcacacctgcccctcttcaactcc 6780
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6xHis tag (6811, 6828) >>> SV40ER reg (6839, 7075) <<<

| |

6781 ccacaggtggcgtcgtgcttaggctcagcctcaccatcaccattgatgatccggc 6840
GGTGTCCGACCGCGAGCCGAATCCGAGCTCGTAGTAGTGGTAGTGGTAACACTAGGCCG

SV40 prom (6862, 7130) >>>

|

6841 tgtggaatgtgtgctcagttaggtgtgaaagtccccaggtccccagcaggcagaagta 6900
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6901 tgcaaagcatgcatctcaattagtcagcaaccaggtgtgaaagtccccaggtccccag 6960
ACGTTTCGTACGTAGAGTTAATCAGTCTGGTCCACACCTTTCAGGGGTCCGAGGGGTG

6961 caggcagaagtatgcaaagcatgcatctcaattagtcagcaaccatagtcocgccctaa 7020
GTCCGCTTCATACGTTTCGTACGTAGAGTTAATCAGTCTGGTATCAGGGCGGGGATT

SV40 origin (7029, 7106) >>>

7021 ctccgcccattcccccccctaactccgcccagttccgcccatttccgcccatttccgcccattggtgac 7080
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7081 taatTTTTTTTatttatgcagaggccgagccgctcgccctctgagctattccagaagt 7140
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7201 atctaatacgtgctagcagaccagatctaatgcgtgctaggccTTTTTgaaaaagcttg 7260
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ORF_1 rf (1) (7312,8016)>>>

7261 gctgcaggctcaggggatctgatcaagagacaggtgaggatcgTTTTTcagcagagg 7320
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7321 ccgaggccgctcggcctctgagctattccagaagttagtgaggaggctTTTTTggaggcc 7380
GGCTCCGGCGGAGCCGGAGACTCGATAAGGTCTTCATCACTCCTCCGAAAAACCTCCGG

puro marker (7381,7977)>>>

7381 atgaccaggtacaagcccacggtgcccctcgcaccgcgagcagctccctcgggcccgt 7440
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7441 cgcaccctcgcgcccgttgcgactaccccggcagcgcaccacccgtggaccggag 7500
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7501 cgcacatcagagcgggtcaccgagctgcaagaactcttctcagcgcgctgggctcag 7560
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7741 cccgctggttctcggccaccgtcggcgtctcggccaccaccagggaagggtctggg 7800
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7981 ggactctggggtcgatatctagcaccagatctaatgctgcaaggcagctgtagatc 8040
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delta_U3 other (8071,8123)>>>

8041 ttagccactTTTTTaaagaaaagggggactggaagggtaattcactcccaacgaagac 8100
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HIV-1_5_LTR other (8124,8304)>>>

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8221 aagtagtgtgtgcccgtctgtgtgtgactctggttaactagagatccctcagaccctttt 8280
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pBR322 origin (9010,9629) <<<
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NEOKAN prom (10282, 10331) >>>

|

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NTP_II marker (10423, 11211) >>>

|

ORF_2 rf (1) (10420, 11214) >>>

| |

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f1 origin (11319, 11624) <<<

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