

```

    *      10      20      30      40      50      60      70      80      90      100
1  tagttattaatagtaaatcaattacggggtcattagttcatagcccataatggagttccgcgttacataaactacggtaaatggcccgcctggctgaccg 100
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  CMV promoter

    *      110      120      130      140      150      160      170      180      190      200
101 cccaacgacccccgccattgacgtcaataatgacgtatggtcccatagtaacgccaatagggactttccattgacgtcaatgggtggagtatttacggt 200
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  CMV promoter

    *      210      220      230      240      250      260      270      280      290      300
201 aaactgccacttgccagtacatcaagtgtatcatatgccaaagtaacgcccttattgacgtcaatgacggtaaatggcccgcctggcattatgccagta 300
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  CMV promoter

    *      310      320      330      340      350      360      370      380      390      400
301 catgaccttatgggactttcctacttggcagtcacatctcagctattagtcacgtcattaccatggtgatgcggttttggcagtcacatcaatggcggtga 400
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  CMV promoter

    *      410      420      430      440      450      460      470      480      490      500
401 tagcggtttgactcaggggattttccaagtctccaccattgacgtcaatgggagtttggtttgccacaaaaatcaacgggactttccaaaatgtcgta 500
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  CMV promoter

    *      510      520      530      540      550      560      570      580      590      600
501 acaactccgccattgacgcaaatggcggtagcgttacggtgggaggtctatataagcagagctgggttagtgaaccgtcagatccgtagcgta 600
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  CMV promoter

    *      610      620      630      640      650      660      670      680      690      700
601 ccggactcagatctgccaccatggcggtggcgcacttgatcaagaagtccagtcctccaaggaggagggggatccaccggtcATGGAGCATGTTGC 700
    M G V A D L I K K F E S I S K E E
    1
    >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
    Lifeact

    *      710      720      730      740      750      760      770      780      790      800
701 CTTTGGCAGTGAGGACATCGAGAACACTTGGCCAAAATGGACGACGGACAACCTGGATGGGTTGGCCTTTGGCGCAATTCAGCTCGATGGTGACGGGAAT 800
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  iFAST

    *      810      820      830      840      850      860      870      880      890      900
801 ATCTGCAGTACAATGCTGCTGAAGGAGACATCACAGGACAGATCCCAAACAGGTGATGGGAAGAACTTCTTCAAGGATGTTGCACCTGGAACGGATT 900
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  iFAST

    *      910      920      930      940      950      960      970      980      990      1000
901 CTCCGAGTTTTACGCCAAAATCAAGGAAGGCGTAGCGTCAGGAACTCTGAACACCATTTCGAATGGATGATACCGACAAGCAGGGGACCAACAAAGT 1000
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  iFAST

    *      1010      1020      1030      1040      1050      1060      1070      1080      1090      1100
1001 CAAGataCACATGAAGAAAGCCCTTTCGGGTGACAGCTATTGGGTCCTTTGTGAAACGGGTGGGATCCGAACAAAAGCTTATTTCTGAAGAGGACTTGTA 1100
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  iFAST

    *      1110      1120      1130      1140      1150      1160      1170      1180      1190      1200
1101 TAGccccgggtaaGCGGCCGcactctagatcataatcagccataccacatttgtagaggttttactgcttaaaaaacctcccacacctccccctgaac 1200

    *      1210      1220      1230      1240      1250      1260      1270      1280      1290      1300
1201 ctgaaacataaaatgaatgcaattggtgtgtaactgtttattgtagcttataatggttacaaaataagcaatagcatcacaatttcacaataaag 1300
    >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
    SV40 polyA

    *      1310      1320      1330      1340      1350      1360      1370      1380      1390      1400
1301 cattttttcactgcattctagttgtggtttgtccaaaactcatcaatgtatcttaaggcgtaaattgtaagcgtaaatatttggtaaaaattcgcgtaa 1400
  >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
  SV40 polyA

    *      1410      1420      1430      1440      1450      1460      1470      1480      1490      1500
  
```

```

1401 atttttgtaaatacagctcatttttaaccaatagccgaaatcggcaaaatcccttataaatcaaaagaatagaccgagatagggttgagtgttctcc 1500
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      1510      1520      1530      1540      1550      1560      1570      1580      1590      1600
1501 agtttggaaacagatccactattaagaacgtggactccaacgtcaaggggcaaaacggtctatcaggcgatggcccactcgtgaaccatcacc 1600
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      1610      1620      1630      1640      1650      1660      1670      1680      1690      1700
1601 taatcaagttttttggggtcgaggtgcccgtaaagcactaaatcggaaccctaaaggagccccgatttagagcttgacggggaaagccggcggaacgtgg 1700
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      1710      1720      1730      1740      1750      1760      1770      1780      1790      1800
1701 cgagaaaggaaggaagaagcgaaggagcggcgctagggcgctggcaagtgtagcggtcacgctgctgtaaccaccacacccggcggttaaatgc 1800
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      1810      1820      1830      1840      1850      1860      1870      1880      1890      1900
1801 gccgctacagggcgctcaggtggcacttttcggggaaatgtgctgccaaccctattttgttttttctaaatacattcaaatatgtatccgctcatg 1900
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      1910      1920      1930      1940      1950      1960      1970      1980      1990      2000
1901 agacaataacccctgataaatgcttcaataatattgaaaaggaagagtcctgagggcaagaaaccagctgtggaatgtgtgcagttagggtgtggaaa 2000
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2010      2020      2030      2040      2050      2060      2070      2080      2090      2100
2001 gtccccaggctccccagcaggcagaagtatgcaaagcatgcattctcaattagtcagcaaccaggtgtggaaagtcccaggctccccagcaggcagaagt 2100
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2110      2120      2130      2140      2150      2160      2170      2180      2190      2200
2101 atgcaaagcatgcattctcaattagtcagcaaccatagtcggcccttaactcccacctcccggccatcccggcccttaactcccaggctcccggccat 2200
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2210      2220      2230      2240      2250      2260      2270      2280      2290      2300
2201 atggctgactaattttttttatttatgcagagggcgaggccgctcctgcgctctgagctattccagaagttagtgaggaggctttttggaggctaggctt 2300
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2310      2320      2330      2340      2350      2360      2370      2380      2390      2400
2301 ttgcaaatgatcgaacaagacagagatgaggatcgtttccgatgattgaacaagatggattgcacgcaggttctccggccgcttggtggagaggctatt 2400
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2410      2420      2430      2440      2450      2460      2470      2480      2490      2500
2401 cggctatgactggcgcaacaacagacaatcgctgctctgatgcgcggtgtccggctgtcagcgcaggggcgcccgggttcttttgcagaccgactg 2500
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2510      2520      2530      2540      2550      2560      2570      2580      2590      2600
2501 tccgggtgacctgaatgaactgcaagacgagcagcgcgctatcgtggctggccacgacggcgcttccctgcgagctgtgctcagcgttgtcaactgaag 2600
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2610      2620      2630      2640      2650      2660      2670      2680      2690      2700
2601 cgggaaggctggtgctattggcgaaagtgccgggcaggatcctgtcatctcaccttctcctgcccagagaagaatccatcattggctgatgcaat 2700
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2710      2720      2730      2740      2750      2760      2770      2780      2790      2800
2701 gcggcgctgacatacgcttgcggctaccctgccattcgaccaccaagcgaaacatcgatcgagcagcagcgtactcggatggaagccgcttctgtc 2800
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2810      2820      2830      2840      2850      2860      2870      2880      2890      2900
2801 gatcaggatgatctggaacagagcatcaggggctcgccagccgaactgctccaggtcgaaggcagcatgccgcagcggcgaggatctctgtcgtga 2900
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      2910      2920      2930      2940      2950      2960      2970      2980      2990      3000
2901 cccatggcgtgctgcttggccaatcatggtggaagtgccgctttctggattcatcgactgtgcccggctgggtgtggcggaccgctatcagga 3000
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      3010      3020      3030      3040      3050      3060      3070      3080      3090      3100
3001 catagcgttgctaccgctgatttgcgaagagcttgccggcgaatggcgtgaccgcttctcctgcttaccggtatcgccgctcccagattcgagcgc 3100
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      3110      3120      3130      3140      3150      3160      3170      3180      3190      3200
3101 atcgcttctatcgcttcttgcagagttctctgagcgggactctggggttcgaaatgaccgaccaagcagcagcccaacctgcatcagagatttcga 3200
      >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
      kan r / Neo r
      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *      *
      3210      3220      3230      3240      3250      3260      3270      3280      3290      3300

```

* * * * *
3201 ttccaccgccgcttctatgaaggttgggcttcggaatcggtttccgggacgccggctggatgatcctccagcgggggatctcatgctggagttcttc 3300
* * * * *
3310 3320 3330 3340 3350 3360 3370 3380 3390 3400
* * * * *
3301 gccaccctaggggaggctaactgaaacacggaaggagacaataaccggaaggaaccgcgctatgacggcaataaaaagacagaataaaaacgcacggtg 3400
* * * * *
3410 3420 3430 3440 3450 3460 3470 3480 3490 3500
* * * * *
3401 ttgggtcggttggttcataaacgggggttcggtcccagggtggcactctgtcgataaccaccgagacccttggggccaatacggccgcgtttcttc 3500
* * * * *
3510 3520 3530 3540 3550 3560 3570 3580 3590 3600
* * * * *
3501 ctttccccaccaccaccacaagttcgggtgaagccagggtcgcagccaacgtcggggcggcaggccctgccatagcctcaggttactcatatata 3600
* * * * *
3610 3620 3630 3640 3650 3660 3670 3680 3690 3700
* * * * *
3601 ctttagattgatttaaaacttcattttaatttaaaggatctagtggaagatcctttttgataatctcatgacaaaatcccttaacgtgagttttcgt 3700
* * * * *
3710 3720 3730 3740 3750 3760 3770 3780 3790 3800
* * * * *
3701 tccactgagcgtcagaccocgtgaaaaagatcaaaggatcttcttgagatcctttttttctgcgcgtaaatctgctgcttgcaacaaaaaacaccgct 3800
* * * * *
3810 3820 3830 3840 3850 3860 3870 3880 3890 3900
* * * * *
3801 accagcgggtggttggttgcccggatcaagagctaccaactccttttccgaaggttaactggcttcagcagagcgcagataccaatactgtccttctagt 3900
* * * * *
3910 3920 3930 3940 3950 3960 3970 3980 3990 4000
* * * * *
3901 tagccgtagttaggccaccacttcaagaactctgtagcaccgcctacatacctcgctctgctaatacctggtaccagtggtgctgccagtgggataagt 4000
* * * * *
4010 4020 4030 4040 4050 4060 4070 4080 4090 4100
* * * * *
4001 cgtgtcttaccgggttggactcaagacgatagttaccggataaggcgcagcggctcgggctgaacggggggttcgtgcacacagccagcttggagcgaac 4100
* * * * *
4110 4120 4130 4140 4150 4160 4170 4180 4190 4200
* * * * *
4101 gacctacaccgaactgagatacctacagcgtgagctatgagaaagcgcacgcttcccgaaggagaaaggcggacaggtatccggtaagcggcagggtc 4200
* * * * *
4210 4220 4230 4240 4250 4260 4270 4280 4290 4300
* * * * *
4201 ggaacaggagagcgcacgaggagcttccaggggaaacgcctggtatctttatagtcctgctcgggtttccacactctgacttgagcgtcgatttttgt 4300
* * * * *
4310 4320 4330 4340 4350 4360 4370 4380 4390 4400
* * * * *
4301 gatgctcgtcagggggcggagcctatggaaaaacgccagcaacgcggcctttttacggttctggcctttttgctggcctttttgctcacatgttctttcc 4400
* * * * *
4410 4420 4430 4440
* * * * *
4401 tgcgttatcccctgattctgtggataaccgattaccgccatgcat 4446