

Sequence Range: 1 to 7865

Enzyme	#Cuts	Positions			
AatII	4	2433	2486	2569	2755
Acc65I	1	6514			
AccI	3	3399	4544	6492	
AclI	3	317	690	7851	
AflII	2	2954	6701		
AflIII	1	1807			
AgeI	2	5327	5731		
AhdI	1	919			
ApaI	2	247	1493		
AseI	4	744	1979	2038	2315
AvaI	4	4359	5150	6473	6485
AVrII	1	7185			
BamHI	1	6479			
BbsI	1	6616			
BbvCI	2	3857	5027		
BcgI	2	381	5868		
BcgI	2	415	5834		
BciVI	3	82	1609	2245	
BclI	1	6497			
BglII	5	2910	5196	6550	6616
BlpI	1	5490			
BmgBI	3	5436	5456	5674	
BsaAI	2	2648	7638		
BsaBI	2	4058	5195		
BsaI	3	853	2898	6645	
BsaXI	3	1969	4250	7677	
BsaXI	3	1939	4280	7707	
BsmBI	2	5462	7195		
BsmI	3	4027	5648	6970	
BsoBI	4	4359	5150	6473	6485
BspDI	2	4455	4660		
BspEI	1	5636			
BspHI	2	79	1087		
BsrBI	4	77	1878	2119	7494
BsrDI	4	685	859	2220	5501
BsrGI	2	2251	6453		
BssHII	4	2168	3148	5136	7239
BssSI	4	250	1634	5468	5924
BstAPI	3	3886	4901	4976	
BtgI	3	2668	5742	7092	
BtrI	3	5436	5456	5674	
ClaI	2	4455	4660		
DraI	5	341	1033	1052	4497
DraIII	1	7641			6567
DrdI	2	1705	7685		
EagI	1	3581			
EcoNI	1	3603			
EcoO109I	4	3087	4366	5073	5631
EcoRI	1	5208			
EcoRV	3	4689	4883	4958	
FspI	2	696	7383		
HincII	2	2292	6493		
HindIII	5	2212	2968	3524	4107
KasI	3	3074	5334	5621	6715

AMP  
Resist.

Used by Sun Ju  
to make  
Spa-1  
lentivirus  
(Sam's  
didn't have  
any EGFP  
marker)

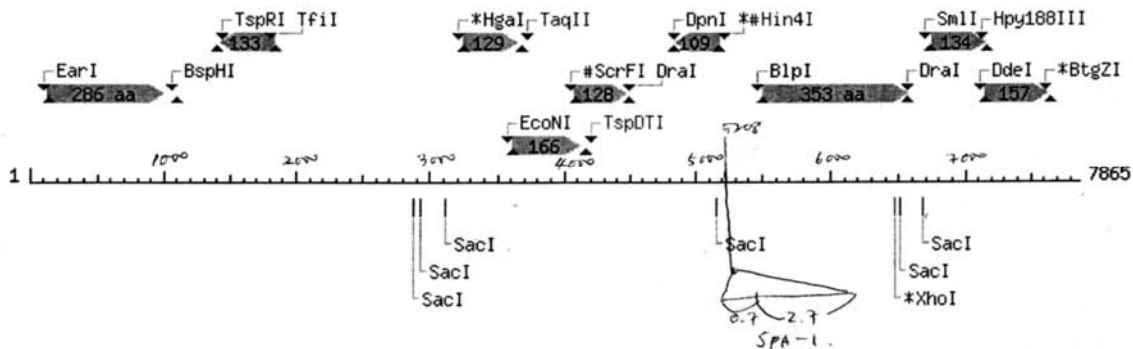
KpnI	1	6518			
MfeI	1	3622			
MscI	1	2219			
NaeI	1	7535			
NarI	3	3075	5335	5622	
NcoI	3	2668	5742	7092	
NdeI	1	2542			
NgoMIV	1	7533			
NotI	1	3581			
NruI	1	3270			
NspI	2	1811	5257		
PaeR7I	1	6473			
PciI	1	1807			
PpuMI	4	3087	4366	5073	5631
PsiI	3	6853	6909	7766	
PvuI	2	550	7364		
PvuII	4	1987	4732	6545	7333
SalI	1	6491			
SapI	2	1924	3539		
ScaI	1	438			
SfiI	1	7138			
SfoI	3	3076	5336	5623	
SmaI	1	6487			
SnaBI	1	2648			
SpeI	2	2307	5462		
SphI	1	5257			
SspI	2	114	7846		
StuI	2	5511	7184		
TliI	1	6473			
XbaI	3	5037	5193	5722	
XhoI	1	6473			
XmaI	1	6485			
XmnI	2	319	3281		

to main  
 ]

Linear Sequence: noname-1

Cleavage code	Enzyme name code
⌵   blunt end cut	Available from NEB
⌵   5' extension	Has other supplier
⌵   3' extension	Not commercially available
⌵   cuts 1 strand	#: cleavage affected by CpG meth.
	#: cleavage affected by other meth.
	(enz.name): ambiguous site

Sequence digested with: SacI, XhoI



AfeI  
ApaI  
AscI  
BaeI  
BaeI  
BfrBI  
BsiWI  
BspMI  
BstBI  
BstEII  
BstXI  
BstZ17I  
Bsu36I  
FseI  
HpaI  
pCC: I-CeuI  
Mond: I-SceI  
MluI  
NheI  
NsiI  
PacI  
PflFI  
PflMI  
pCC: PI-PspI  
Mond: PI-SceI  
PmeI  
PmlI  
PshAI  
PspOMI  
PstI  
RsrII  
SacII  
SbfI  
SexAI  
pCC: SgrAI  
Mond: SwaI  
Tth111I  
XcmI

Sequence Range: 1 to 7865

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      10      20      30      40      50      60
CAGGTGGCAC TTTTCGGGGA AATGTGCGCG GAACCCCTAT TTGTTTATTT TTCTAAATAC

      >BspHI
      |
      >BsrBI | >BciVI | >SspI
      | | | | |
      70      80      90     100     110     120
ATTCAAATAT GTATCCGCTC ATGAGACAAT AACCCCTGATA AATGCTTCAA TAATATTGAA

      130     140     150     160     170     180
AAAGGAAGAG TATGAGTATT CAACATTTCG GTGTGCGCCCT TATTCCCTTT TTTGCGGCAT

pCCL-c-
Monday,
      190     200     210     220     230     240
TTTGCCCTCC TGTTTTTGCT CACCCAGAAA CGCTGGTGAA AGTAAAAGAT GCTGAAGATC

      >BssSI
      |
      >ApaLI
      | |
      250     260     270     280     290     300
AGTTGGGTGC ACGAGTGGGT TACATCGAAC TGGATCTCAA CAGCGGTAAG ATCCTTGAGA

      >XmnI
      |
      >AclI | >DraI
      | | | |
      310     320     330     340     350     360
GTTTTCGCCC CGAAGAACGT TTTCCAATGA TGAGCACTTT TAAAGTTCTG CTATGTGGCG

      >BcgI | >BcgI
      | | | |
      370     380     390     400     410     420
CGGTATTATC CCGTATTGAC GCCGGGCAAG AGCAACTCGG TCGCCGCATA CACTATTCTC

pCCL-c-
Monday,

      >ScaI
      |
      430     440     450     460     470     480
AGAATGACTT GGTGAGTAC TCACCACTCA CAGAAAAGCA TCTTACGGAT GGCATGACAG

      490     500     510     520     530     540
TAAGAGAATT ATGCAGTGCT GCCATAACCA TGAGTGATAA CACTGCGGCC AACTTACTTC

      >PvuI
      |
      550     560     570     580     590     600
TGACAACGAT CGGAGGACCG AAGGAGCTAA CCGCTTTTTT GCACAACATG GGGGATCATG

      610     620     630     640     650     660
TAACTCGCCT TGATCGTTGG GAACCGGAGC TGAATGAAGC CATAACCAAC GACGAGCGTG

pCCL-c-
Monday,

      >AclI
      |
      >BsrDI | >FspI
      | | | |
      670     680     690     700     710     720
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ACACCACGAT GCCTGTAGCA ATGGCAACAA CGTTGCGCAA ACTATTA ACT GCGGA ACTAC

>AseI

730 740 750 760 770 780  
TTACTCTAGC TTCCCGGCAA CAATTAATAG ACTGGATGGA GGCGGATAAA GTTGCAGGAC  
790 800 810 820 830 840  
CACTTCTGCG CTCGCCCTT CCGGCTGGCT GGTATTATTGC TGATAAATCT GGAGCCGGTG

>BsaI

>BsrDI

850 860 870 880 890 900  
AGCGTGGGTC TCGCGGTATC ATTGCAGCAC TGGGGCCAGA TGGTAAGCCC TCCCGTATCG

>AhdI

910 920 930 940 950 960  
TAGTTATCTA CACGACGGGG AGTCAGGCAA CTATGGATGA ACGAAATAGA CAGATCGCTG  
970 980 990 1000 1010 1020  
AGATAGGTGC CTCACTGATT AAGCATTGGT AACTGTCAGA CCAAGTTTAC TCATATATAC

>DraI

>DraI

1030 1040 1050 1060 1070 1080  
TTTAGATTGA TTTAAAACCT CATTTTTAAT TTAAAAGGAT CTAGGTGAAG ATCCTTTTTG

>BspHI

1090 1100 1110 1120 1130 1140  
ATAATCTCAT GACCAAATC CCTTAACGTG AGTTTTTCGT CCCTGAGCG TCAGACCCCG  
1150 1160 1170 1180 1190 1200  
TAGAAAAGAT CAAAGGATCT TCTTGAGATC CTTTTTTTCT GCGCGTAATC TGCTGCTTG  
1210 1220 1230 1240 1250 1260  
AAACAAAAA ACCACCGCTA CCAGCGGTGG TTTGTTTGCC GGATCAAGAG CTACCAACT  
1270 1280 1290 1300 1310 1320  
TTTTTCCGAA GGTAAGTGGC TTCAGCAGAG CGCAGATACC AAATACTGTC CTCTAGTGT  
1330 1340 1350 1360 1370 1380  
AGCCGTAGTT AGGCCACCAC TTCAAGAACT CTGTAGCACC GCCTACATAC CTCGCTCTGC  
1390 1400 1410 1420 1430 1440  
TAATCCTGTT ACCAGTGGCT GCTGCCAGTG GCGATAAGTC GTGTCTTACC GGGTTGGACT

>ApaLI

1450 1460 1470 1480 1490 1500  
CAAGACGATA GTTACCGGAT AAGGCGCAGC GGTCGGGCTG AACGGGGGGT TCGTGCACAC  
1510 1520 1530 1540 1550 1560  
AGCCCAGCTT GGAGCGAAGC ACCTACACCG AACTGAGATA CCTACAGCGT GAGCTATGAG

>BciVI

|

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1570      1580      1590      1600      1610      1620
AAAGCGCCAC GCTTCCCGAA GGGAGAAAGG CGGACAGGTA TCCGGTAAGC GGCAGGGTCC

      >BssSI
      |
1630      1640      1650      1660      1670      1680
GAACAGGAGA GCGCACGAGG GAGCTTCCAG GGGGAAACGC CTGGTATCTT TATAGTCTCG

      >DrdI
      |
1690      1700      1710      1720      1730      1740
TCGGGTTTCG CCACCTCTGA CTTGAGCGTC GATTTTGTG ATGCTCGTCA GGGGGCGGGA

1750      1760      1770      1780      1790      1800
GCCTATGGAA AAACGCCAGC AACGCGGCCT TTTTACGGTT CCTGGCCTTT TGCTGGCCTT

      >NspI
      |
      >AflIII
      |
      >PciI
      |
1810      1820      1830      1840      1850      1860
TTGCTCACAT GTTCTTTCCT GCGTTATCCC CTGATTCTGT GGATAACCGT ATTACCGCCT

      >BsrBI
      |
1870      1880      1890      1900      1910      1920
TTGAGTGAGC TGATACCGCT CGCCGAGCC GAACGACCGA GCGCAGCGAG TCAGTGAGCG

      >SapI      >BsaXI      >BsaXI      >AseI
      |      |      |      |
1930      1940      1950      1960      1970      1980
AGGAAGCGGA AGAGCGCCCA ATACGCAAAC CGCCTCTCCC CGCGCGTTGG CCGATTCAAT

      >PvuII      >AseI
      |      |
1990      2000      2010      2020      2030      2040
AATGCAGCTG GCACGACAGG TTTCCCGACT GGAAAGCGGG CAGTGAGCGC AACGCAATTA

2050      2060      2070      2080      2090      2100
ATGTGAGTTA GCTCACTCAT TAGGCACCCC AGGCTTTACA CTTTATGCTT CCGGCTCGTA

      >BsrBI
      |
2110      2120      2130      2140      2150      2160
TGTTGTGTGG AATTGTGAGC GGATAACAAT TTCACACAGG AAACAGCTAT GACCATGATT

      >BsrDI
      |
      >BssHII      >HindIII      >MscI
      |      |      |
2170      2180      2190      2200      2210      2220
ACGCCAAGCG CGCAATTAAC CCTCACTAAA GGGAACAAAA GCTGGAGCTG CAAGCTTGCC

      >BciVI      >BsrGI
      |      |
2230      2240      2250      2260      2270      2280
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CATTGCATAC GTTGTATCCA TATCATAATA TGTACATTTA TATTGGCTCA TGCCAACAT

>HincII >SpeI >AseI  
2290 | 2300 | 2310 | 2320 2330 2340  
TACCGCCATG TTGACATTGA TTATTGACTA GTTATTAATA GTAATCAATT ACGGGGTCAT

2350 2360 2370 2380 2390 2400  
TAGTTCATAG CCCATATATG GAGTTCGCG TTACATAACT TACGGTAAAT GGCCCCCTG

>AatII  
2410 2420 2430 | 2440 2450 2460  
GCTGACCGCC CAACGACCCC CGCCATTGA CGTCAATAAT GACGTATGTT CCCATAGTAA

>AatII  
2470 2480 | 2490 2500 2510 2520  
CGCCAATAGG GACTTTCCAT TGACGTCAAT GGGTGGAGTA TTTACGGTAA ACTGCCCACT

>NdeI >AatII  
2530 2540 | 2550 2560 2570 2580  
TGGCAGTACA TCAAGTGTAT CATATGCCAA GTACGCCCCC TATTGACGTC AATGACGGTA

2590 2600 2610 2620 2630 2640  
AATGGCCCCG CTGGCATTAT GCCCAGTACA TGACCTTATG GGACTTTCCT ACTTGGCAGT

>BsaAI >NcoI  
| |  
>SnaBI >BtgI  
| |  
2650 2660 2670 2680 2690 2700  
ACATCTACGT ATTAGTCATC GCTATTACCA TGGTGATGCG GTTTTGGCAG TACATCAATG

>AatII  
2710 2720 2730 2740 2750 | 2760  
GGCGTGGATA GCGGTTTGAC TCACGGGGAT TTCCAAGTCT CCACCCCAT T GACGTCAATG

2770 2780 2790 2800 2810 2820  
GGAGTTTGTT TTGGCACCAA AATCAACGGG ACTTTCCAAA ATGTCGTAAC AACTCCGCCC

2830 2840 2850 2860 2870 2880  
CATTGACGCA AATGGGCGGT AGGCGTGTAC GGTGGGAGGT CTATATAAGC AGAGCTCGTT

>BsaI >BglII  
| |  
2890 2900 2910 2920 2930 2940  
TAGTGAACCG GGGTCTCTCT GGTTAGACCA GATCTGAGCC TGGGAGCTCT CTGGCTAACT

>AflIII >HindIII  
| |  
2950 2960 2970 2980 2990 3000  
AGGGAACCCA CTGCTTAAGC CTCAATAAAG CTTGCCTTGA GTGCTTCAAG TAGTGTGTGC

3010 3020 3030 3040 3050 3060  
CCGTCTGTTG TGTGACTCTG GTAAGTAGAG ATCCCTCAGA CCCTTTTAGT CAGTGTGGAA

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                >SfoI
                |
                >NarI
                ||
                >KasI
                |||
3070          3080          3090          3100          3110          3120
AATCTCTAGC AGTGGCGCCC GAACAGGGAC CTGAAAGCGA AAGGGAAACC AGAGGAGCTC

                >PpuMI
                |
                >Eco0109I
                |
                >BssHII
                |
3130          3140          3150          3160          3170          3180
TCTCGACGCA GGA CTGGCT TGCTGAAGCG CGCACGGCAA GAGGCGAGGG GCGGCGACTG

3190          3200          3210          3220          3230          3240
GTGAGTACGC CAAAAATTTT GACTAGCGGA GGCTAGAAGG AGAGAGATGG GTGCGAGAGC

                >NruI
                |
3250          3260          3270          3280          3290          3300
GTCAGTATTA AGCGGGGGAG AATTAGATCG CGATGGGAAA AAATTCGGTT AAGGCCAGGG

3310          3320          3330          3340          3350          3360
GAAAGAAAAA AATATAAATT AAAACATATA GTATGGGCAA GCAGGGAGCT AGAACGATTC

                >XmnI
                |
                >AccI
                |
3370          3380          3390          3400          3410          3420
GCAGTTAATC CTGGCCTGTT AGAAACATCA GAAGGCTGTA GACAAATACT GGGCAGCTA

3430          3440          3450          3460          3470          3480
CAACCATCCC TTCAGACAGG ATCAGAAGAA CTTAGATCAT TATATAATAC AGTAGCAACC

                >HindIII
                |
                >SapI
                |
3490          3500          3510          3520          3530          3540
CTCTATTGTG TGCATCAAAG GATAGAGATA AAAGACACCA AGGAAGCTTT AGACAAGATA

                >EagI
                |
                >NotI
                |
3550          3560          3570          3580          3590          3600
GAGGAAGAGC AAAACAAAAG TAAGACCACC GCACAGCAAG CGGCCGCTGA TCTTCAGACC

>EcoNI
|
3610          3620          3630          3640          3650          3660
TGGAGGAGGA GATATGAGGG ACAATTGGAG AAGTGAATTA TATAAATATA AAGTAGTAAA

3670          3680          3690          3700          3710          3720
AATTGAACCA TTAGGAGTAG CACCCACCAA GGCAAAGAGA AGAGTGGTGC AGAGAGAAAA

3730          3740          3750          3760          3770          3780
AAGAGCAGTG GGAATAGGAG CTTTGTTCCT TGGGTTCTTG GGAGCAGCAG GAAGCACTAT

3790          3800          3810          3820          3830          3840
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pCCL  
Monda

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Monda



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GGGCGCAGCC TCAATGACGC TGACGGTACA GGCCAGACAA TTATTGTCTG GTATAGTGCA
      >BbvCI                               >BstAPI
      |                                   |
3850      3860      3870      3880      3890      3900
GCAGCAGAAC AATTTGCTGA GGGCTATTGA GGC GCAACAG CATCTGTTGC AACTCACAGT
      3910      3920      3930      3940      3950      3960
CTGGGGCATC AAGCAGCTCC AGGCAAGAAT CCTGGCTGTG GAAAGATACC TAAAGGATCA
      3970      3980      3990      4000      4010      4020
ACAGCTCCTG GGGATTTGGG GTTGCTCTGG AAAACTCATT TGCACCACTG CTGTGCCTTG
      >BsmI                               >BsaBI
      |                                   |
4030      4040      4050      4060      4070      4080
GAATGCTAGT TGGAGTAATA AATCTCTGGA ACAGATTGGA ATCACACGAC CTGGATGGAG
      >HindIII
      |
4090      4100      4110      4120      4130      4140
TGGGACAGAG AAATTAACAA TTACACAAGC TTAATACACT CCTTAATTGA AGAATCGCAA
      4150      4160      4170      4180      4190      4200
AACCAGCAAG AAAAGAATGA ACAAGAATTA TTGGAATTAG ATAAATGGGC AAGTTTGTGG
      >BsaXI
      |
4210      4220      4230      4240      4250      4260
AATTGGTTTA ACATAACAAA TTGGCTGTGG TATATAAAAT TATTCATAAT GATAGTAGGA
      >BsaXI
      |
4270      4280      4290      4300      4310      4320
GGCTTGGTAG GTTTAAGAAT AGTTTTTGTCT GTACTTTCTA TAGTGAATAG AGTTAGGCAG
      >AvaI   >Eco0109I
      |     |
      >BsoBI >PpuMI
      |     |
4330      4340      4350      4360      4370      4380
GGATATTCAC CATTATCGTT TCAGACCCAC CTCCCAACCC CGAGGGGACC CGACAGGCC
      4390      4400      4410      4420      4430      4440
GAAGGAATAG AAGAAGAAGG TGGAGAGAGA GACAGAGACA GATCCATTCG ATTAGTGAAC
      >BspDI  cppt
      |
      >ClaI
      |
4450      4460      4470      4480      4490      4500
GGATCTCGAC GGTATCGATA AGCTAATTCA CAAATGGCAG TATTCATCCA CAATTTTAAA
      1 TO 190 OF CPPT (R1) [SPLIT] _____>
      g_1 TO 760 OF CPPT-MNDU3 (CLA-R1) _____>
      h_2232 TO 2991 OF CPPT-MNDU3-KS_h _____>
      2257 TO 2444 OF CPPT(R1)-SK _____>
      >AccI
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4510 4520 4530 4540 4550 4560  
AGAAAAGGGG GGATTGGGGG GTACAGTGCA GGGGAAAGAA TAGTAGACAT AATAGCAACA  
\_\_\_\_\_j\_\_\_\_\_1 TO 190 OF CPPT (R1) [SPLIT]\_\_\_\_\_j\_\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_i\_\_\_\_\_2257 TO 2444 OF CPPT(R1)-SK\_\_\_\_\_i\_\_\_\_\_>

4570 4580 4590 4600 4610 4620  
GACATACAAA CTAAGAATT ACAAACAA ATTACAAAA TTCAAATTT TCGGGTTTAT  
\_\_\_\_\_j\_\_\_\_\_1 TO 190 OF CPPT (R1) [SPLIT]\_\_\_\_\_j\_\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_i\_\_\_\_\_2257 TO 2444 OF CPPT(R1)-SK\_\_\_\_\_i\_\_\_\_\_>

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CPPT ← ClaI → MNDU3  
|  
>BspDI

4630 4640 4650 4660 4670 4680  
TACAGGGACA GCAGAGATCC AGTTTGGGAA TTAGCTTGAT CGATTAGTCC AATTTGTAA  
\_\_\_1 TO 190 OF CPPT (R1) [SPLIT]\_\_\_>  
\_\_\_\_\_2415 TO 2943 O\_\_\_>  
\_\_\_\_\_1 TO 660 OF NE\_\_\_>  
\_\_\_\_\_1 TO 178 OF U3\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_2257 TO 2444 OF CPPT(R1)-SK\_\_\_i\_\_\_>  
\_\_\_\_\_296 TO 839 OF \_\_\_>

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>EcoRV | >PvuII |  
4690 4700 4710 4720 4730 4740  
AGACAGGATA TCAGTGGTCC AGGCTCTAGT TTTGACTCAA CAATATCACC AGCTGAAGCC  
\_\_\_\_\_2415 TO 2943 OF MP-NCR-DL NEO S2 [SPLIT]\_\_\_l\_\_\_>  
\_\_\_\_\_t\_\_\_\_\_1 TO 660 OF NEO MPSVLTR [SPLIT]\_\_\_\_\_t\_\_\_\_\_>  
\_\_\_\_\_v\_\_\_\_\_1 TO 178 OF U3 LTR [SPLIT]\_\_\_\_\_v\_\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_k\_\_\_\_\_296 TO 839 OF MNDU3-20H1\_\_\_\_\_k\_\_\_\_\_>

4750 4760 4770 4780 4790 4800  
TATAGAGTAC GAGCCATAGA TAGAATAAAA GATTTTATT AGTCTCCAGA AAAAGGGGGG  
\_\_\_2415 TO 2943 OF M\_l\_\_\_>  
\_\_\_\_\_2415 TO 2943 OF MP-NCR-DL NEO S2 \_\_\_>  
\_\_\_1 TO 660 OF NEO M\_t\_\_\_>  
\_\_\_1 TO 178 OF U3 LT\_v\_\_\_>  
\_\_\_\_\_1 TO 660 OF NEO MPSVLTR [SPLIT]\_\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_1 TO 178 OF U3 LTR [SPLIT]\_\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_k\_\_\_\_\_296 TO 839 OF MNDU3-20H1\_\_\_\_\_k\_\_\_\_\_>

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4810 4820 4830 4840 4850 4860  
AATGAAAGAC CCCACCTGTA GGTGGGCAA GCTAGGATCA AGGTTAGGAA CAGAGAGACA  
\_\_\_2415 TO 2943 OF MP-NCR-DL NEO S2 [SPLIT]\_\_\_>  
\_\_\_\_\_n\_\_\_\_\_>  
\_\_\_\_\_>

\_\_\_\_\_ 1 TO 527 OF 3'MPSV LTR(-NCR) [SPLIT]\_x\_\_\_\_>  
\_\_\_\_\_y\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_ 1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_ 2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_k\_\_\_\_\_ 296 TO 839 OF MNDU3-20H1\_\_\_\_\_k\_\_\_\_\_>

>EcoRV >BstAPI  
4870 4880 | 4890 4900 | 4910 4920  
GCAGAATATG GGCCAAACAG GATATCTGTG GTAAGCAGTT CCTGCCCCGG CTCAGGGCCA

\_\_\_\_\_ 2415 TO 2943 OF MP-NCR-DL NEO S2 [SPLIT]\_\_\_\_\_>  
\_\_\_\_\_q\_\_\_\_\_>

\_\_\_\_\_ 1 TO 527 OF 3'MPSV LTR(-NCR) [SPLIT]\_\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_ 1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_ 2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_k\_\_\_\_\_ 296 TO 839 OF MNDU3-20H1\_\_\_\_\_k\_\_\_\_\_>

>EcoRV >BstAPI  
4930 4940 4950 4960 4970 | 4980  
AGAACAGTTG GAACAGCAGA ATATGGGCCA AACAGGATAT CTGTGGTAAG CAGTTCCTGC

\_\_\_\_\_ 2415 TO 29\_\_\_\_\_>  
\_\_\_\_\_ 2415 TO 2943 OF MP-NCR-DL NEO S2 [SPLIT]\_\_\_\_\_>

\_\_\_\_\_ 1 TO 527 o\_\_\_\_\_>  
\_\_\_\_\_c\_\_\_\_\_ 1 TO 527 OF 3'MPSV LTR(-NCR) [SPLIT]\_\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_ 1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_ 2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_k\_\_\_\_\_ 296 TO 839 OF MNDU3-20H1\_\_\_\_\_k\_\_\_\_\_>

>BbvCI >XbaI  
4990 5000 5010 5020 5030 5040  
CCCGGCTCAG GGCCAAGAAC AGATGGTCCC CAGATGCGGT CCCGCCCTCA GCAGTTTCTA

\_\_\_\_\_>  
\_\_\_\_\_s\_\_\_\_\_ 2415 TO 2943 OF MP-NCR-DL NEO S2 [SPLIT]\_\_\_\_\_>

\_\_\_\_\_d\_\_\_\_\_ 1 TO 527 OF 3'MPSV LTR(-NCR) [SPLIT]\_d\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_ 1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_ 2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_k\_\_\_\_\_ 296 TO 839 OF MNDU3-20H1\_\_\_\_\_k\_\_\_\_\_>

>PpuMI  
|  
>Eco0109I  
5050 5060 5070 | 5080 5090 5100  
GAGAACCATC AGATGTTTCC AGGGTGCCCC AAGGACCTGA AATGACCCTG TGCCTTATT

\_\_\_\_\_ 2415 TO 2943 OF MP-NCR-DL NEO S2 [SPLIT]\_s\_\_\_\_>  
\_\_\_\_\_d\_\_\_\_\_ 1 TO 527 OF 3'MPSV LTR(-NCR) [SPLIT]\_d\_\_\_\_>  
\_\_\_\_\_g\_\_\_\_\_ 1 TO 760 OF CPPT-MNDU3 (CLA-R1)\_\_\_\_\_g\_\_\_\_\_>  
\_\_\_\_\_h\_\_\_\_\_ 2232 TO 2991 OF CPPT-MNDU3-KS\_\_\_\_\_h\_\_\_\_\_>  
\_\_\_\_\_k\_\_\_\_\_ 296 TO 839 OF MNDU3-20H1\_\_\_\_\_k\_\_\_\_\_>

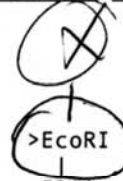
>BsoBI

6pactc

5110 5120 5130 5140 5150 5160  
GAACTAACCA ATCAGTTCGC TTCTCGCTTC TGTTCCGCGC CTTCTGCTCC CCGAGCTCAA  
2415 TO 2943 OF MP-NCR-DL NEO S2 [SPLIT] s  
d 1 TO 527 OF 3'MPSV LTR(-NCR) [SPLIT] d  
g 1 TO 760 OF CPPT-MNDU3 (CLA-R1) g  
h 2232 TO 2991 OF CPPT-MNDU3-KS h  
k 296 TO 839 OF MNDU3-20H1 k

MNDU3

>BglIII  
|  
>BsaBI  
||  
>XbaI  
|||



PGK

5170 5180 5190 5200 5210 5220  
TAAAAGAGCC CACAACCCCT CACTCGGCGC GATCTAGATC TCGAATCGAA TTCTACCGGG  
2415 TO 2943 OF MP-NCR-DL N s  
1 TO 527 OF 3'MPSV LTR(-NCR) d  
g 1 TO 760 OF CPPT-MNDU3 (CLA-R1) g  
h 2232 TO 2991 OF CPPT-MNDU3-KS h  
296 TO 839 OF MNDU3-20H1 k

>SphI  
|  
>NspI  
|

5230 5240 5250 5260 5270 5280  
TAGGGGAGGC GCTTTTCCA AGGCAGTCTG GAGCATGCGC TTTAGCAGCC CCGTGGCAGC  
d 1 TO 526 OF MUPGK(R1/XHO) [SPLIT] d  
c 284 TO 1554 OF PGK-EGFP-PIC20H c

>SfoI  
|  
>NarI  
||  
>AgeI >KasI  
|||

5290 5300 5310 5320 5330 5340  
TTGGCGCTAC ACAAGTGGCC TCTGGCCTCG CACACATTCC ACATCCACCG GTAGGCGCCA  
d 1 TO 526 OF MUPGK(R1/XHO) [SPLIT] d  
c 284 TO 1554 OF PGK-EGFP-PIC20H c

5350 5360 5370 5380 5390 5400  
ACCGGCTCCG TTCTTTGGTG GCCCCTTCGC GCCACCTTCT ACTCCTCCCC TAGTCAGGAA  
d 1 TO 526 OF MUPGK(R1/XHO) [SPLIT] d  
c 284 TO 1554 OF PGK-EGFP-PIC20H c

>BtrI  
|  
>BmgBI  
|  
>BtrI  
|

5410 5420 5430 5440 5450 5460  
GTTCCCCCCC GCCCGCAGC TCGCGTCGTG CAGGACGTGA CAAATGGAAG TAGCACGTCT

\_\_\_\_\_d\_\_\_\_\_1 TO 526 OF MUPGK(R1/XHO) [SPLIT]\_\_\_\_\_d\_\_\_\_\_>  
\_\_\_\_\_c\_\_\_\_\_284 TO 1554 OF PGK-EGFP-PIC20H\_\_\_\_\_c\_\_\_\_\_>

>SpeI

>BsmBI | >BssSI | >BlpI | >BsrDI | >StuI  
| 5470 | 5480 | 5490 | 5500 | 5510 | 5520  
CACTAGTCTC GTGCAGATGG ACAGCACCGC TGAGCAATGG AAGCGGGTAG GCCTTTGGGG  
\_\_\_\_\_d\_\_\_\_\_1 TO 526 OF MUPGK(R1/XHO) [SPLIT]\_\_\_\_\_d\_\_\_\_\_>  
\_\_\_\_\_c\_\_\_\_\_284 TO 1554 OF PGK-EGFP-PIC20H\_\_\_\_\_c\_\_\_\_\_>

5530 5540 5550 5560 5570 5580  
CAGCGGCAA TAGCAGCTTT GCTCCTTCGC TTTCTGGGCT CAGAGGCTGG GAAGGGGTGG  
\_\_\_\_\_d\_\_\_\_\_1 TO 526 OF MUPGK(R1/XHO) [SPLIT]\_\_\_\_\_d\_\_\_\_\_>  
\_\_\_\_\_c\_\_\_\_\_284 TO 1554 OF PGK-EGFP-PIC20H\_\_\_\_\_c\_\_\_\_\_>

>SfoI >BspEI

>NarI >PpuMI  
||| >Eco0109I  
>KasI

5590 5600 5610 5620 5630 5640  
GTCCGGGGC GGGCTCAGGG GCGGGCTCAG GGGCGGGGCG GGCGCCCGAA GGTCCTCCGG  
\_\_\_\_\_d\_\_\_\_\_1 TO 526 OF MUPGK(R1/XHO) [SPLIT]\_\_\_\_\_d\_\_\_\_\_>  
\_\_\_\_\_c\_\_\_\_\_284 TO 1554 OF PGK-EGFP-PIC20H\_\_\_\_\_c\_\_\_\_\_>

>BmgBI

>BsmI

>BtrI

5650 5660 5670 5680 5690 5700  
AGGCCCGGCA TTCTCGCACG CTTCAAAGC GCACGTCTGC CGCGCTGTTC TCCTCTTCT  
\_\_\_\_\_d\_\_\_\_\_1 TO 526 OF MUPGK(R1/XHO) [SPLIT]\_\_\_\_\_d\_\_\_\_\_>  
\_\_\_\_\_c\_\_\_\_\_284 TO 1554 OF PGK-EGFP-PIC20H\_\_\_\_\_c\_\_\_\_\_>

*PGK* ← *EGFP*

>NcoI

>BtgI

>XbaI

>AgeI

5710 5720 5730 5740 5750 5760  
CATCTCCGGG CCTTTCGACC ATCTAGATCC ACCGGTCGCC ACCATGGTGA GCAAGGGCGA  
\_\_\_\_\_1 TO 526 OF MUPGK(R\_\_\_\_\_>  
\_\_\_\_\_1704 TO 2461 OF L-EGFP-SN [SPLI]\_\_\_\_\_>  
\_\_\_\_\_28 TO 823 OF EGFP SEQ [SPLIT]\_\_\_\_\_>  
\_\_\_\_\_c\_\_\_\_\_284 TO 1554 OF PGK-EGFP-PIC20H\_\_\_\_\_c\_\_\_\_\_>

5770 5780 5790 5800 5810 5820  
GGAGCTGTTC ACCGGGGTGG TGCCCATCCT GGTCGAGCTG GACGGCGACG TAAACGGCCA  
\_\_\_\_\_e\_\_\_\_\_1704 TO 2461 OF L-EGFP-SN [SPLIT]\_\_\_\_\_e\_\_\_\_\_>  
\_\_\_\_\_f\_\_\_\_\_28 TO 823 OF EGFP SEQ [SPLIT]\_\_\_\_\_f\_\_\_\_\_>  
\_\_\_\_\_c\_\_\_\_\_284 TO 1554 OF PGK-EGFP-PIC20H\_\_\_\_\_c\_\_\_\_\_>

>BcgI

>BcgI

5830 5840 5850 5860 5870 5880  
CAAGTTCAGC GTGTCCGGCG AGGGCGAGGG CGATGCCACC TACGGCAAGC TGACCCTGAA

\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

>BssSI

5890 5900 5910 5920 5930 5940  
GTTTCATCTGC ACCACCGGCA AGCTGCCCGT GCCCTGGCCC ACCCTCGTGA CCACCCCTGAC  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

5950 5960 5970 5980 5990 6000  
CTACGGCGTG CAGTGCTTCA GCCGCTACCC CGACCACATG AAGCAGCAGC ACTTCTTCAA  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

6010 6020 6030 6040 6050 6060  
GTCCGCCATG CCCGAAGGCT ACGTCCAGGA GCGCACCATC TTCTTCAAGG ACGACGGCAA  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

6070 6080 6090 6100 6110 6120  
CTACAAGACC CGCGCCGAGG TGAAGTTCGA GGGCGACACC CTGGTGAACC GCATCGAGCT  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

6130 6140 6150 6160 6170 6180  
GAAGGGCATC GACTTCAAGG AGGACGGCAA CATCCTGGGG CACAAGCTGG AGTACAACAA  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

6190 6200 6210 6220 6230 6240  
CAACAGCCAC AACGTCTATA TCATGGCCGA CAAGCAGAAG AACGGCATCA AGGTGAACCT  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

6250 6260 6270 6280 6290 6300  
CAAGATCCGC CACAACATCG AGGACGGCAG CGTGCAGCTC GCCGACCACT ACCAGCAGAA  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

6310 6320 6330 6340 6350 6360  
CACCCCATC GGCGACGGCC CCGTGCTGCT GCCCGACAAC CACTACCTGA GCACCCAGTC  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >  
\_\_\_\_\_ c \_\_\_\_\_ 284 TO 1554 OF PGK-EGFP-PIC20H \_\_\_\_\_ c \_\_\_\_\_ >

6370 6380 6390 6400 6410 6420  
CGCCCTGAGC AAAGACCCCA ACGAGAAGCG CGATCACATG GTCCTGCTGG AGTTCGTGAC  
\_\_\_\_\_ e \_\_\_\_\_ 1704 TO 2461 OF L-EGFP-SN [SPLIT] \_\_\_\_\_ e \_\_\_\_\_ >  
\_\_\_\_\_ f \_\_\_\_\_ 28 TO 823 OF EGFP SEQ [SPLIT] \_\_\_\_\_ f \_\_\_\_\_ >

\_\_\_\_\_c\_\_\_\_\_284 TO 1554 OF PGK-EGFP-PIC20H\_\_\_\_\_c\_\_\_\_\_>

```

                                     >BamHI
                                     |
                                     >AvaI
                                     |
                                     >BsoBI
                                     |
                                     >PaeR7I
                                     |
                                     >TliI
                                     |
                                     >XhoI
                                     |
                                     >BsrGI
                                     |
6430      6440      6450      6460      6470      6480
CGCCGCCGGG ATCACTCTCG GCATGGACGA GCTGTACAAG TAAAGCGGCC AACTCGAGGG
_____e_____1704 TO 2461 OF L-EGFP-SN [SPLIT]_____e_____>
_____f_____28 TO 823 OF EGFP SEQ [SPLIT]_____f_____>
_____c_____284 TO 1554 OF PGK-EGFP-PIC20H_____c_____>
```

ELFP

```

>SmaI  <- >BclI
|      |
>XmaI  >HincII
|      |
>AvaI  >AccI
|      |
>BsoBI >SalI
|      |
6490 6500 6510 6520 6530 6540
ATCCCCCGGG GTCGACTGAT CAAATTCGAG CTCGGTACCT TTAAGACCAA TGA CTTACAA
_____7 TO 47 OF UNTITLED2_____>
```

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>BglII
|
>PvuII |
|      |
6550 6560 6570 6580 6590 6600
GGCAGCTGTA GATCTTAGCC ACTTTTAAA AGAAAAGGGG GGACTGGAAG GGCTAATTCA
```

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>BbsI
|
>BglII
|      |
6610 6620 6630 6640 6650 6660
CTCCCAACGA AGACAAGATC TGCTTTTTCG TTGTA CTGGG TCTCTCTGGT TAGACCAGAT
```

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                                     >AflIII
                                     |
                                     >HindIII
                                     |
6670      6680      6690      6700      6710      6720
CTGAGCCTGG GAGCTCTCTG GCTAACTAGG GAACCCACTG CTTAAGCCTC AATAAAGCTT

6730      6740      6750      6760      6770      6780
GCCTTGAGTG CTTCAAGTAG TGTGTGCCCG TCTGTTGTGT GACTCTGGTA ACTAGAGATC

6790      6800      6810      6820      6830      6840
CCTCAGACCC TTTTAGTCAG TGTGGAAAAT CTCTAGCAGT AGTAGTTCAT GTCATCTTAT
```

>PsiI  
|  
6850 6860 6870 6880 6890 6900  
TATTCAAGTAT TTATAACTTG CAAAGAAATG AATATCAGAG AGTGAGAGGA ACTTGTATTAT

>PsiI  
|  
6910 6920 6930 6940 6950 6960  
TGCAGCTTAT AATGGTTACA AATAAAGCAA TAGCATCACA AATTTACAAA ATAAAGCATT

>BsmI  
|  
6970 6980 6990 7000 7010 7020  
TTTTTCACTG CATTCTAGTT GTGGTTTGTG CAAACTCATC AATGTATCTT ATCATGTCTG

7030 7040 7050 7060 7070 7080  
GCTCTAGCTA TCCCGCCCT AACTCCGCC ATCCCGCCC TAACTCCGCC CAGTTCCGCC  
\_\_\_1 TO 21 OF CCL C\_b\_\_>

>BtgI  
|  
>NcoI  
|  
7090 7100 7110 7120 7130 7140  
CATTCTCCGC CCCATGGCTG ACTAATTTTT TTTATTTATG CAGAGGCCGA GGCCGCCTCG

>AvrII  
|  
>StuI  
||  
>BsmBI  
|  
7150 7160 7170 7180 7190 7200  
GCCTCTGAGC TATTCCAGAA GTAGTGAGGA GGCTTTTTTG GAGGCCTAGG CTTTTGCGTC

>BssHII  
|  
7210 7220 7230 7240 7250 7260  
GAGACGTACC CAATTCGCCC TATAGTGAGT CGTATTACGC GCGCTCACTG GCCGTCGTTT

7270 7280 7290 7300 7310 7320  
TACAACGTCG TGA CTGGGAA AACCTGGCG TTACCCA ACT TAATCGCCTT GCAGCACATC

>PvuII  
|  
>PvuI  
|  
7330 7340 7350 7360 7370 7380  
CCCCTTTCGC CAGCTGGCGT AATAGCGAAG AGGCCCGCAC CGATCGCCCT TCCCAACAGT

>FspI  
|  
7390 7400 7410 7420 7430 7440  
TGCGCAGCCT GAATGGCGAA TGGCGCGACG CGCCCTGTAG CGGCGCATT AAGCGCGCGG

>BsrBI  
|  
7450 7460 7470 7480 7490 7500  
GTGTGGTGGT TACGCGCAGC GTGACCGCTA CACTTGCCAG CGCCCTAGCG CCCGCTCCTT

>NaeI  
|



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                                     >NgoMIV
                                     |||
7510      7520      7530      7540      7550      7560
TCGCTTTCTT CCCTTCCTTT CTCGCCACGT TCGCCGGCTT TCCCCGTC AA GCTCTAAATC

7570      7580      7590      7600      7610      7620
GGGGGCTCCC TTTAGGGTTC CGATTTAGTG CTTTACGGCA CCTCGACCCC AAAAAACTTG

                                     >DraIII
                                     |
                                     >BsaAI |
7630      7640      7650      7660      7670      7680
ATTAGGGTGA TGGTTCACGT AGTGGGCCAT CGCCCTGATA GACGGTTTTT CGCCCTTTGA

                                     >BsaXI
                                     |
                                     >DrdI
7690      7700      7710      7720      7730      7740
CGTTGGAGTC CACGTTCTTT AATAGTGGAC TCTTGTCCA AACTGGAACA ACACTCAACC

                                     >BsaXI
                                     |
                                     >PsiI
7750      7760      7770      7780      7790      7800
CTATCTCGGT CTATTCTTTT GATTTATAAG GGATTTTGCC GATTTGCGCC TATTGGTTAA

                                     >SspI  >AclI
                                     |    |
7810      7820      7830      7840      7850      7860
AAAATGAGCT GATTTAACAA AAATTTAACG CGAATTTTAA CAAAATATTA ACGTTTACAA

TTTCC
```

pCCL  
Mond

14

pCCL  
Mond

pCCL  
Mond