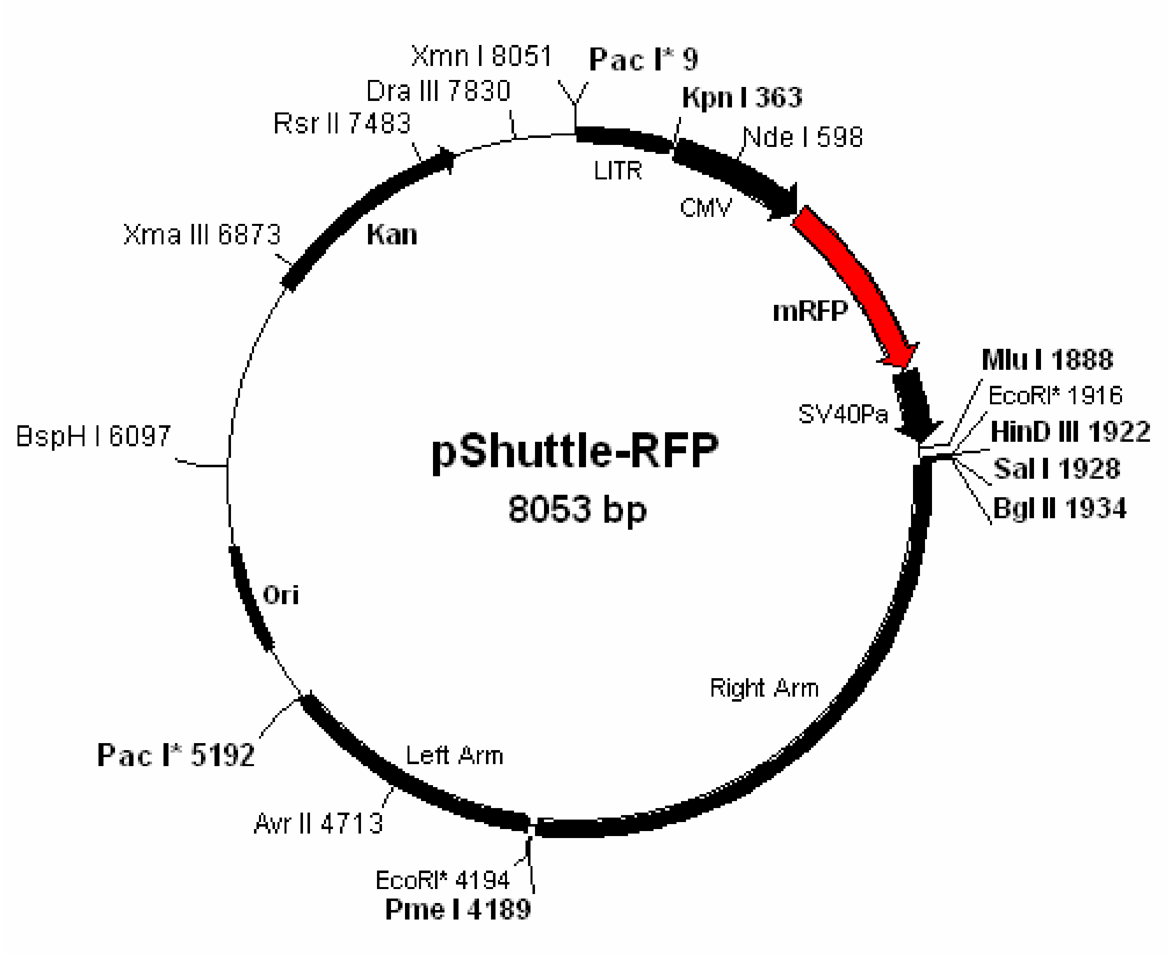

Vector: **pShuttle-RFP**

Antibiotic resistance: **Kanamycin**

Creator: **Qing Luo**, Molecular Oncology Laboratory, The University of Chicago

Date: **April, 2005**

pShuttle-RFP Full-length Sequence

```
NNNTTAATTAANNNTCCCTTCCAGCTCTCTGCCCCTTTTGGATTGAAGCCAATATGATAATGAGGGGGTGGAGTTTGTGACGTGGCGCGGGGCGTG
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```

Unique enzymes in pShuttle-RFP:

```
BsrG I      T`GTAC,A        207
Acc65 I     G`GTAC,C        359
Asp718      G`GTAC,C        359
Kpn I       G,GTAC`C        363
Nde I       CA`TA,TG        598
Hpa I       GTT|AAC         1765
Mlu I       A`CGCG,T        1888
HinD III    A`AGCT,T        1922
Sal I       G`TCGA,C        1928
Bgl II      A`GATC,T        1934
Bst1107 I   GTA|TAC         4174
Xca I       GTA|TAC         4174
Pme I       CTTT|AAAC       4189
Avr II      C`CTAG,G        4713
BspH I      T`CATG,A        6097
Psp1406 I   AA`CG,TT        6496
Eag I       C`GGCC,G        6873
Xma III     C`GGCC,G        6873
Rsr II      CG`GWC,CG       7483
Dra III     CAC,NNN`GTG     7830
Xmn I       GAANN|NNTTC     8051
Number of enzymes = 22
```

The following enzymes do not cut in pShuttle-RFP:

```
Afl II      Age I       Asc I       BamH I      Blp I       BsiC I
BsiW I      BstB I      Bsu36 I     Cla I       Eco72 I
EcoN I      EcoR V      Esp I       Fse I       Nhe I
Not I       Nru I       PaeR7 I     Pml I       Pvu I
Sca I       Sfi I       Spe I       Spl I       Srf I
```

pShuttle-RFP: sites sorted by name:

```
Aat II      (6)   489      542      625      811
                  982      1905
Acc I       (3)   1929     3235     4173
Acc65 I     (1)   359
Aci I       (108) 88       106      126      151
                  233      243      294      422
                  450      462      476      643
                  734      767      871      892
                  953      1067     1090     1114
                  1189     1267     1336     1406
                  1471     1619     2006     2009
                  2012     2138     2201     2204
                  2207     2216     2228     2232
                  2234     2266     2297     2301
                  2431     2520     2538     2666
                  2784     3037     3040     3125
                  3129     3146     3242     3322
                  3461     3478     3536     3579
                  3640     3650     3886     3888
                  3930     4006     4011     4020
                  4348     4620     4734     4764
                  4939     5071     5092     5110
                  5217     5243     5260     5303
                  5310     5331     5422     5450
                  5577     5596     5717     5827
                  5962     5971     6333     6424
                  6554     6677     6773     6876
                  6939     7033     7097     7198
                  7201     7441     7481     7486
                  7536     7552     7578     7720
                  7859     7974     8001     8029
Afl III     (4)   158      1888     4340     5377
Aha II      (14)  486      539      622      808
                  979      1426     1483     1534
                  1633     1902     2974     3927
                  6719     6967
Ahd I       (3)   1142     2538     6270
Alu I       (44)  25       930      1097     1214
                  1331     1460     1526     1556
                  1781     1924     2051     2284
                  2376     2656     2742     2792
                  2942     3284     3311     3381
                  3387     3590     3910     3967
                  4054     4298     4513     4837
                  5319     5545     5635     5681
                  5938     6459     6588     6641
                  6667     6713     6804     7073
                  7531     7660     7878     7917
Alw I       (23)  945      1653     2389     2481
                  2680     3071     3234     3612
                  5192     5203     5939     6025
                  6025     6122     6123     6523
                  6524     6787     6804     6834
                  7145     7212     7391
AlwN I      (6)   2218     2376     2461     4182
                  5793     6591
Apa I       (2)   3031     3337
ApaL I      (2)   2917     5691
Apo I       (7)   257      1816     1916     2928
                  4194     7632     7643
Ase I       (5)   5        371      4669     5188
                  6442
Asp718      (1)   359
Ava I       (5)   1224     1416     2348     2528
                  4603
Ava II      (7)   2532     2556     3581     3722
                  3800     6408     7483
Avr II      (1)   4713
Ban I       (16)  359      829      1080     1338
                  1425     1533     1632     2714
                  3135     3926     4830     6218
                  6718     6966     7001     7867
Ban II      (9)   1023     2053     2110     2266
                  3031     3337     4056     7332
                  7905
Bbe I       (6)   1429     1537     1636     3930
                  6722     6970
Bbs I       (2)   1383     3820
Bbv I       (19)  1535     1790     2011     2014
                  2206     2233     2293     2385
                  3320     3336     3396     3919
                  4779     5796     5799     6005
                  7040     7082     7603
Bbv II      (2)   1382     3821
Bcl I       (2)   1659     6808
Bcn I       (18)  1532     2086     2350     2351
                  2530     2531     2876     3268
                  3358     3767     3993     4605
                  4606     5758     6454     6575
                  6972     7132
Bfa I       (13)  364      956      1650     1851
                  1898     1906     4714     5872
                  6125     6460     6526     6668
                  7981
Bgl I       (7)   454      576      647      2410
                  4461     6390     8050
Bgl II      (1)   1934
Bpm I       (3)   2094     4722     6340
Bsa I       (5)   2158     2546     3522     4034
                  6331
BsaA I      (7)   704      1178     2809     5020
                  6540     7271     7830
BsaB I      (3)   1664     2473     6826
BsaH I      (14)  486      539      622      808
                  979      1426     1483     1534
                  1633     1902     2974     3927
                  6719     6967
BsaJ I      (42)  724      961      973      1108
                  1132     1168     1225     1285
                  1381     1417     1486     1612
                  2077     2084     2232     2348
                  2528     2750     2762     2874
                  3031     3044     3168     3169
                  3266     3694     3710     3781
                  3862     3886     3898     3916
                  3991     4516     4603     4604
                  4713     5537     6572     6776
                  7130     7399
BsaW I      (8)   1643     2913     4300     4527
                  5583     5730     6700     6998
BseR I      (5)   959      1283     3620     3936
                  4505
Bsg I       (5)   1542     2300     2910     3965
                  4890
BsiE I      (6)   2548     4594     5293     5717
                  6876     7863
BsiHKA I    (8)   2023     2053     2921     3681
                  4056     5695     7080     7270
Bsm I       (4)   1753     1846     3003     4034
BsmA I      (11)  797      2159     2183     2545
                  2629     2966     3523     4033
                  4626     6332     6810
BsmB I      (2)   2630     2965
BsmF I      (10)  539      690      858      1130
                  1149     2545     3414     3567
                  4151     7118
BsoF I      (69)  1067     1115     1268     1332
                  1337     1472     1524     1527
                  1619     1779     2000     2003
                  2006     2009     2012     2195
                  2204     2207     2216     2219
                  2222     2282     2374     2664
                  3038     3041     3309     3312
                  3325     3382     3385     3388
                  3478     3651     3770     3821
                  3889     3908     3930     4011
                  4219     4765     4768     5283
                  5301     5304     5422     5577
                  5720     5785     5788     5994
                  6322     6773     6876     6928
                  6939     7029     7034     7071
                  7112     7199     7202     7205
                  7441     7537     7578     7592
                  8010
Bsp120 I    (2)   3027     3333
Bsp1286 I   (2)   2023     7270
BspH I      (1)   6097
BspM I      (8)   2385     3247     3287     3607
                  4281     6625     6854     7235
BspM II     (2)   4300     4527
Bsr I       (19)  660      1158     2689     3369
                  4484     4789     5784     5797
                  5911     6317     6435     6478
                  6550     6595     6676     6760
                  6910     7111     7744
BsrB I      (5)   1406     4736     5310     7580
                  7974
BsrD I      (3)   3029     6331     7200
BsrG I      (1)   207
BssH II     (6)   1607     2514     2516     3772
                  3903     8031
BssS I      (5)   1035     3933     4040     5550
                  7559
Bst1107 I   (1)   4174
BstE II     (4)   1103     1274     3594     4483
BstN I      (19)  454      647      1133     1287
                  2574     2751     3045     3090
                  3170     3576     3695     3782
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                  3848    4047    4079    5405
                  5526    5539    7354
BstU I      (36)  88      231     233     294
                  350     424     1246    1336
                  1609    1890    2067    2234
                  2303    2516    2518    2520
                  3125    3640    3774    3840
                  3888    3905    3975    4008
                  4245    4945    5112    5424
                  6005    6335    7033    7334
                  7722    8014    8031    8033
BstX I      (2)   1505    3018
BstY I      (14)  949     1646    1934    2382
                  5196    6018    6029    6115
                  6127    6516    6528    6780
                  7138    7384
Cac8 I      (49)  450     643     1609    2071
                  2138    2232    2266    2270
                  2274    2301    2392    2516
                  2518    2740    2758    3127
                  3475    3547    3774    3778
                  3905    3912    4015    4462
                  4624    4943    5308    5394
                  5431    5991    6382    6619
                  6643    6694    6711    6861
                  7047    7266    7332    7338
                  7366    7370    7411    7415
                  7469    7933    7976    7990
                  8033
Cfr10 I     (10)  202     1629    3327    3823
                  4129    4460    6350    7286
                  7467    7931
Csp6 I      (13)  208     360     582     607
                  662     695     746     903
                  1160    1412    1601    3662
                  7272
Dde I       (9)   1150    2260    2369    2943
                  3304    3400    5652    6061
                  6227
Dpn I       (33)  951     1047    1443    1648
                  1661    1936    2384    2476
                  2686    3066    3099    3229
                  3280    3618    5198    5945
                  6020    6031    6039    6117
                  6129    6234    6518    6530
                  6782    6799    6810    6829
                  7140    7218    7299    7308
                  7386
DpnII       (33)  949     1045    1441    1646
                  1659    1934    2382    2474
                  2684    3064    3097    3227
                  3278    3616    5196    5943
                  6018    6029    6037    6115
                  6127    6232    6516    6528
                  6780    6797    6808    6827
                  7138    7216    7297    7306
                  7384
Dra I       (6)   1704    2437    4189    4392
                  6136    6155
Dra III     (1)   7830
Drd I       (6)   1488    1937    3866    5485
                  6994    7785
Dsa I       (10)  724     961     1381    2077
                  2232    3031    3710    3862
                  3886    7399
Eae I       (12)  283     1031    1472    1507
                  3778    3844    4058    4453
                  6873    7047    7438    7465
Eag I       (1)   6873
Ear I       (3)   5261    7311    7521
Eco47 III   (3)   2704    3819    4755
Eco57 I     (10)  1118    1451    1475    1481
                  2196    2427    3833    5924
                  7112    7544
EcoO109 I   (4)   2556    2759    3722    4016
EcoR I      (2)   1916    4194
EcoR II     (19)  452     645     1131    1285
                  2572    2749    3043    3088
                  3168    3574    3693    3780
                  3846    4045    4077    5403
                  5524    5537    7352
Ehe I       (6)   1427    1535    1634    3928
                  6720    6968
Fnu4H I     (69)  1067    1115    1268    1332
                  1337    1472    1524    1527
                  1619    1779    2000    2003
                  2006    2009    2012    2195
                  2204    2207    2216    2219
                  2222    2282    2374    2664
                  3038    3041    3309    3312
                  3325    3382    3385    3388
                  3478    3651    3770    3821
                  3889    3908    3930    4011
                  4219    4765    4768    5283
                  5301    5304    5422    5577
                  5720    5785    5788    5994
                  6322    6773    6876    6928
                  6939    7029    7034    7071
                  7112    7199    7202    7205
                  7441    7537    7578    7592
                  8010
Fok I       (20)  184     258     1125    1182
                  1421    2280    2610    2809
                  3105    3147    3381    3989
                  6236    6417    6589    6772
                  6834    7291    7316    7680
Fsp I       (3)   1011    6492    7069
Gdi II      (9)   1032    1473    3845    4057
                  4454    6872    6874    7437
                  7464
Gsu I       (3)   2095    4723    6341
Hae I       (11)  285     966     1173    1395
                  1509    3109    3780    5392
                  5403    5855    7049
Hae II      (14)  1429    1537    1636    2706
                  3474    3821    3930    4757
                  5255    5625    6722    6970
                  7981    7989
Hae III     (42)  285     448     641     966
                  1033    1066    1117    1173
                  1360    1395    1474    1509
                  1618    2083    2527    2760
                  3029    3043    3109    3167
                  3335    3412    3693    3780
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                  3846    3896    4017    4060
                  4455    4864    5392    5403
                  5421    5855    6313    6393
                  6875    7049    7440    7467
                  7680    7822
Hga I       (7)   889     1490    2081    2981
                  3830    5487    6065
HgiA I      (8)   2023    2053    2921    3681
                  4056    5695    7080    7270
HgiE II     (2)   3319    5956
Hha I       (60)  88      202     233     350
                  1000    1012    1246    1336
                  1428    1536    1609    1611
                  1635    2069    2390    2516
                  2518    2520    2705    3125
                  3473    3718    3762    3774
                  3776    3790    3820    3840
                  3905    3907    3929    3975
                  4010    4247    4756    5114
                  5254    5287    5557    5624
                  5724    5898    6007    6400
                  6493    6623    6721    6792
                  6961    6969    7033    7070
                  7336    7596    7980    7988
                  8014    8033    8035    8044
HinC II     (3)   1765    1930    2315
Hind II     (3)   1765    1930    2315
HinD III    (1)   1922
Hinf I      (19)  774     1290    2338    2458
                  2591    2879    3435    3987
                  4531    4545    4567    5277
                  5352    5748    6265    7452
                  7586    7757    7779
HinI I      (14)  486     539     622     808
                  979     1426    1483    1534
                  1633    1902    2974    3927
                  6719    6967
HinP I      (60)  86      200     231     348
                  998     1010    1244    1334
                  1426    1534    1607    1609
                  1633    2067    2388    2514
                  2516    2518    2703    3123
                  3471    3716    3760    3772
                  3774    3788    3818    3838
                  3903    3905    3927    3973
                  4008    4245    4754    5112
                  5252    5285    5555    5622
                  5722    5896    6005    6398
                  6491    6621    6719    6790
                  6959    6967    7031    7068
                  7334    7594    7978    7986
                  8012    8031    8033    8042
Hpa I       (1)   1765
Hpa II      (39)  203     1531    1630    1644
                  2084    2349    2529    2874
                  2914    3164    3266    3328
                  3356    3765    3824    3991
                  4130    4301    4461    4528
                  4604    5584    5731    5757
                  5947    6351    6385    6452
                  6574    6701    6872    6949
                  6971    6999    7130    7220
                  7287    7468    7932
Hph I       (18)  120     739     1114    1285
                  1336    1557    2599    3589
                  3760    4060    4156    4478
                  5081    6114    6341    6515
                  7146    7832
Kas I       (6)   1425    1533    1632    3926
                  6718    6966
Kpn I       (1)   363
Mae I       (13)  364     956     1650    1851
                  1898    1906    4714    5872
                  6125    6460    6526    6668
                  7981
Mae II      (29)  81      113     187     486
                  498     539     622     703
                  808     979     1177    1902
                  2578    2808    3073    4902
                  5014    5019    5085    5117
                  6080    6496    6539    7083
                  7270    7774    7786    7829
                  7939
Mae III     (38)  77      109     183     218
                  266     337     425     512
                  861     1103    1274    1280
                  1790    2241    2588    2981
                  3179    3594    3743    4145
                  4465    4483    4845    4903
                  4996    5015    5020    5064
                  5086    5118    5733    5796
                  5912    6195    7087    7393
                  8003    8015
Mbo I       (33)  949     1045    1441    1646
                  1659    1934    2382    2474
                  2684    3064    3097    3227
                  3278    3616    5196    5943
                  6018    6029    6037    6115
                  6127    6232    6516    6528
                  6780    6797    6808    6827
                  7138    7216    7297    7306
                  7384
Mbo II      (15)  1384    1387    2972    3062
                  3263    3300    3821    5249
                  6038    6111    6512    7327
                  7537    7619    7969
Mlu I       (1)   1888
Mme I       (6)   1377    2166    2361    5591
                  5775    7806
Mnl I       (66)  56      304     905     968
                  976     979     1010    1043
                  1049    1055    1070    1158
                  1220    1253    1303    1360
                  1385    1405    1412    1444
                  1481    1571    1576    1607
                  1681    1720    1729    2207
                  2426    2431    2546    2630
                  2880    2995    3125    3194
                  3640    3734    3787    3892
                  3914    3917    3929    3949
                  4122    4250    4525    4648
                  4715    4739    4997    5144
                  5275    5485    5558    5809
                  6209    6290    6436    6732
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                  6818     6882     7018     7375
                  7567     7858
Msc I       (4)   285      1509     3780     7049
Mse I       (32)  5        9        371      1703
                  1764     1885     2357     2436
                  2788     3373     3421     4188
                  4391     4494     4669     4808
                  4911     5034     5188     5192
                  6083     6135     6140     6154
                  6207     6442     6481     7640
                  7652     7669     7767     8037
Msl I       (5)   729      3016     3081     4275
                  7404
Msp I       (39)  203      1531     1630     1644
                  2084     2349     2529     2874
                  2914     3164     3266     3328
                  3356     3765     3824     3991
                  4130     4301     4461     4528
                  4604     5584     5731     5757
                  5947     6351     6385     6452
                  6574     6701     6872     6949
                  6971     6999     7130     7220
                  7287     7468     7932
MspA1 I     (14)  1526     2218     2234     2376
                  2538     3284     3311     3387
                  3888     4764     5719     5964
                  6713     7073
Mun I       (2)   1752     2332
Nae I       (3)   4462     7469     7933
Nar I       (6)   1426     1534     1633     3927
                  6719     6967
Nci I       (18)  1531     2085     2349     2350
                  2529     2530     2875     3267
                  3357     3766     3992     4604
                  4605     5757     6453     6574
                  6971     7131
Nco I       (6)   724      961      1381     2077
                  3862     7399
Nde I       (1)   598
NgoM I      (3)   4460     7467     7931
Nla III     (37)  162      668      728      965
                  998      1016     1385     1508
                  2019     2073     2081     2613
                  2663     2886     2939     3003
                  3234     3429     3444     3549
                  3704     3866     4093     4127
                  4274     4280     4344     4460
                  4526     5381     6101     6660
                  6841     7186     7372     7403
                  7429
Nla IV      (39)  361      831      1022     1082
                  1118     1166     1340     1361
                  1427     1535     1634     2109
                  2533     2557     2716     3029
                  3137     3158     3301     3335
                  3411     3583     3723     3928
                  4018     4305     4832     5198
                  5409     5448     6220     6314
                  6355     6720     6968     7003
                  7869     7890     7902
Nsi I       (2)   2827     3005
Nsp7524 I   (8)   158      2069     3425     3440
                  3545     4340     5377     7368
NspB II     (14)  1526     2218     2234     2376
                  2538     3284     3311     3387
                  3888     4764     5719     5964
                  6713     7073
NspH I      (8)   162      2073     3429     3444
                  3549     4344     5381     7372
Pac I       (2)   9        5192
Pal I       (42)  285      448      641      966
                  1033     1066     1117     1173
                  1360     1395     1474     1509
                  1618     2083     2527     2760
                  3029     3043     3109     3167
                  3335     3412     3693     3780
                  3846     3896     4017     4060
                  4455     4864     5392     5403
                  5421     5855     6313     6393
                  6875     7049     7440     7467
                  7680     7822
PflM I      (2)   1387     2579
Ple I       (3)   4539     5756     7765
Pme I       (1)   4189
PpuM I      (2)   2556     3722
Psp1406 I   (1)   6496
PspA I      (3)   2348     2528     4603
Pst I       (5)   1303     2196     2223     2653
                  3386
Pvu II      (7)   1526     2376     3284     3311
                  3387     6713     7073
Rsa I       (13)  209      361      583      608
                  663      696      747      904
                  1161     1413     1602     3663
                  7273
Rsr II      (1)   7483
Sac I       (2)   2053     4056
Sac II      (2)   2235     3889
Sal I       (1)   1928
Sap I       (3)   5261     7311     7521
Sau3A I     (33)  949      1045     1441     1646
                  1659     1934     2382     2474
                  2684     3064     3097     3227
                  3278     3616     5196     5943
                  6018     6029     6037     6115
                  6127     6232     6516     6528
                  6780     6797     6808     6827
                  7138     7216     7297     7306
                  7384
Sau96 I     (29)  447      640      1064     1116
                  1359     1616     2081     2526
                  2532     2556     2759     3027
                  3028     3166     3333     3334
                  3410     3581     3691     3722
                  3800     3895     4016     4862
                  6312     6391     6408     7483
                  7821
ScrF I      (37)  454      647      1133     1287
                  1531     2085     2349     2350
                  2529     2530     2574     2751
                  2875     3045     3090     3170
                  3267     3357     3576     3695
                  3766     3782     3848     3992
                  4047     4079     4604     4605
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                  5405     5526     5539     5757
                  6453     6574     6971     7131
                  7354
Sec I       (42)  724      961      973      1108
                  1132     1168     1225     1285
                  1381     1417     1486     1612
                  2077     2084     2232     2348
                  2528     2750     2762     2874
                  3031     3044     3168     3169
                  3266     3694     3710     3781
                  3862     3886     3898     3916
                  3991     4516     4603     4604
                  4713     5537     6572     6776
                  7130     7399
SfaN I      (16)  722      1817     2813     2833
                  3618     4010     4091     5215
                  5253     5473     6926     7181
                  7265     7329     7397     7604
Sfc I       (7)   1299     2192     2219     2649
                  3382     5642     5833
Sma I       (3)   2350     2530     4605
SnaB I      (2)   704      5020
Sph I       (3)   2073     3549     7372
Stu I       (2)   1173     1395
Sty I       (13)  724      961      1108     1168
                  1381     2077     2762     3862
                  3898     3916     4713     6776
                  7399
Taq I       (14)  1042     1048     1258     1914
                  1929     3615     4823     5477
                  7080     7236     7260     7296
                  7458     7863
Tfi I       (7)   2338     2879     3987     4567
                  5352     7452     7586
Tsp45 I     (22)  77       109      183      218
                  1103     1274     1280     2241
                  2588     2981     3594     3743
                  4145     4465     4483     4845
                  4996     5086     5118     7087
                  7393     8003
Tth111 I    (2)   2169     7085
Tth111 II   (9)   2288     2454     2493     3581
                  4352     5966     5975     6005
                  7403
Vsp I       (5)   5        371      4669     5188
                  6442
Xba I       (3)   1649     1897     1905
Xca I       (1)   4174
Xcm I       (3)   2462     4053     6783
Xho II      (14)  949      1646     1934     2382
                  5196     6018     6029     6115
                  6127     6516     6528     6780
                  7138     7384
Xma I       (3)   2348     2528     4603
Xma III     (1)   6873
Xmn I       (1)   8051
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Site usage in pShuttle-RFP:

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Aat II     G,ACGT`C         6      Acc I      GT`MK,AC         3
Acc65 I    G`GTAC,C         1      Aci I      C`CG,C           108
Afl II     C`TTAA,G         -      Afl III    A`CRYG,T         4
Age I      A`CCGG,T         -      Aha II     GR`CG,YC         14
Ahd I      GACNN,N`NNGTC    3      Alu I      AG|CT            44
Alw I      GGATC 8/9        23     AlwN I     CAG,NNN`CTG      6
Apa I      G,GGCC`C         2      ApaL I     G`TGCA,C         2
Apo I      R`AATT,Y         7      Asc I      GG`CGCG,CC       -
Ase I      AT`TA,AT         5      Asp718     G`GTAC,C         1
Ava I      C`YCGR,G         5      Ava II     G`GWC,C          7
Avr II     C`CTAG,G         1      BamH I     G`GATC,C         -
Ban I      G`GYRC,C         16     Ban II     G,RGCY`C         9
Bbe I      G,GCGC`C         6      Bbs I      GAAGAC 8/12      2
Bbv I      GCAGC 13/17      19     Bbv II     GAAGAC 7/11      2
Bcl I      T`GATC,A         2      Bcn I      CC,S`GG          18
Bfa I      C`TA,G           13     Bgl I      GCCN,NNN`NGGC    7
Bgl II     A`GATC,T         1      Blp I      GC`TNA,GC        -
Bpm I      CTGGAG 22/20     3      Bsa I      GGTCTC 7/11      5
BsaA I     YAC|GTR          7      BsaB I     GATNN|NNATC      3
BsaH I     GR`CG,YC         14     BsaJ I     C`CNNG,G         42
BsaW I     W`CCGG,W         8      BseR I     GAGGAG 16/14     5
Bsg I      GTGCAG 22/20     5      BsiC I     TT`CG,AA         -
BsiE I     CG,RY`CG         6      BsiHKA I   G,WGCW`C         8
BsiW I     C`GTAC,G         -      Bsm I      GAATG,C 7        4
BsmA I     GTCTC`/9         11     BsmB I     CGTCTC 7/11      2
BsmF I     GGGAC 15/19      10     BsoF I     GC`N,GC          69
Bsp120 I   G`GGCC,C         2      Bsp1286 I  G,DGCH`C         2
BspH I     T`CATG,A         1      BspM I     ACCTGC 10/14     8
BspM II    T`CCGG,A         2      Bsr I      ACT,GG`          19
BsrB I     GAG|CGG          5      BsrD I     GCAATG, 8        3
BsrG I     T`GTAC,A         1      BssH II    G`CGCG,C         6
BssS I     C`TCGT,G         5      Bst1107 I  GTA|TAC          1
BstB I     TT`CG,AA         -      BstE II    G`GTNAC,C        4
BstN I     CC`W,GG          19     BstU I     CG|CG            36
BstX I     CCAN,NNNN`NTGG   2      BstY I     R`GATC,Y         14
Bsu36 I    CC`TNA,GG        -      Cac8 I     GCN|NGC          49
Cfr10 I    R`CCGG,Y         10     Cla I      AT`CG,AT         -
Csp6 I     G`TA,C           13     Dde I      C`TNA,G          9
Dpn I      GA|TC            33     DpnII      `GATC,           33
Dra I      TTT|AAA          6      Dra III    CAC,NNN`GTG      1
Drd I      GACNN,NN`NNGTC   6      Dsa I      C`CRYG,G         10
Eae I      Y`GGCC,R         12     Eag I      C`GGCC,G         1
Ear I      CTCTTC 7/10      3      Eco47 III  AGC|GCT          3
Eco57 I    CTGAAG 21/19     10     Eco72 I    CAC|GTG          -
EcoN I     CCTNN`N,NNAGG    -      EcoO109 I  RG`GNC,CY        4
EcoR I     G`AATT,C         2      EcoR II    `CCWGG,          19
EcoR V     GAT|ATC          -      Ehe I      GGC|GCC          6
Esp I      GC`TNA,GC        -      Fnu4H I    GC`N,GC          69
Fok I      GGATG 14/18      20     Fse I      GG,CCGG`CC       -
Fsp I      TGC|GCA          3      Gdi II     `YGGC,CG         9
Gsu I      CTGGAG 21/19     3      Hae I      WGG|CCW          11
Hae II     R,GCGC`Y         14     Hae III    GG|CC            42
Hga I      GACGC 9/14       7      HgiA I     G,WGCW`C         8
HgiE II    ACCNNNNNNGGT -1/132      Hha I      G,CG`C           60
HinC II    GTY|RAC          3      Hind II    GTY|RAC          3
HinD III   A`AGCT,T         1      Hinf I     G`ANT,C          19
HinI I     GR`CG,YC         14     HinP I     G`CG,C           60
Hpa I      GTT|AAC          1      Hpa II     C`CG,G           39
Hph I      GGTGA 12/11      18     Kas I      G`GCGC,C         6
Kpn I      G,GTAC`C         1      Mae I      C`TA,G           13
Mae II     A`CG,T           29     Mae III    `GTNAC,          38
Mbo I      `GATC,           33     Mbo II     GAAGA 12/11      15
Mlu I      A`CGCG,T         1      Mme I      TCCRAC 25/23     6
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Mnl I	CCTC 10/10	66	Msc I	TGG|CCA	4
Mse I	T`TA,A	32	Msl I	CAYNN|NNRTG	5
Msp I	C`CG,G	39	MspA1 I	CMG|CKG	14
Mun I	C`AATT,G	2	Nae I	GCC|GGC	3
Nar I	GG`CG,CC	6	Nci I	CC`S,GG	18
Nco I	C`CATG,G	6	Nde I	CA`TA,TG	1
NgoM I	G`CCGG,C	3	Nhe I	G`CTAG,C	-
Nla III	,CATG`	37	Nla IV	GGN|NCC	39
Not I	GC`GGCC,GC	-	Nru I	TCG|CGA	-
Nsi I	A,TGCA`T	2	Nsp7524 I	R`CATG,Y	8
NspB II	CMG|CKG	14	NspH I	R,CATG`Y	8
Pac I	TTA,AT`TAA	2	PaeR7 I	C`TCGA,G	-
Pal I	GG|CC	42	PflM I	CCAN,NNN`NTGG	2
Ple I	GAGTC 9/10	3	Pme I	CTTT|AAAC	1
Pml I	CAC|GTG	-	PpuM I	RG`GWC,CY	2
Psp1406 I	AA`CG,TT	1	PspA I	C`CCGG,G	3
Pst I	C,TGCA`G	5	Pvu I	CG,AT`CG	-
Pvu II	CAG|CTG	7	Rsa I	GT|AC	13

Rsr II	CG`GWC,CG	1	Sac I	G,AGCT`C	2
Sac II	CC,GC`GG	2	Sal I	G`TCGA,C	1
Sap I	GCTCTTC 8/11	3	Sau3A I	`GATC,	33
Sau96 I	G`GNC,C	29	Sca I	AGT|ACT	-
ScrF I	CC`N,GG	37	Sec I	C`CNNG,G	42
SfaN I	GCATC 9/13	16	Sfc I	C`TRYA,G	7
Sfi I	GGCCN,NNN`NGGCC	-	Sma I	CCC|GGG	3
SnaB I	TAC|GTA	2	Spe I	A`CTAG,T	-
Sph I	G,CATG`C	3	Spl I	C`GTAC,G	-
Srf I	GCCC|GGGC	-	Ssp I	AAT|ATT	-
Stu I	AGG|CCT	2	Sty I	C`CWWG,G	13
Taq I	T`CG,A	14	Tfi I	G`AWT,C	7
Tsp45 I	`GTSAC,	22	Tth111 I	GACN`N,NGTC	2
Tth111 II	CAARCA 16/14	9	Vsp I	AT`TA,AT	5
Xba I	T`CTAG,A	3	Xca I	GTA|TAC	1
Xcm I	CCANNNNN,N`NNNNTGG	3	Xho I	C`TCGA,G	-
Xho II	R`GATC,Y	14	Xma I	C`CCGG,G	3
Xma III	C`GGCC,G	1	Xmn I	GAANN|NNTTC	1