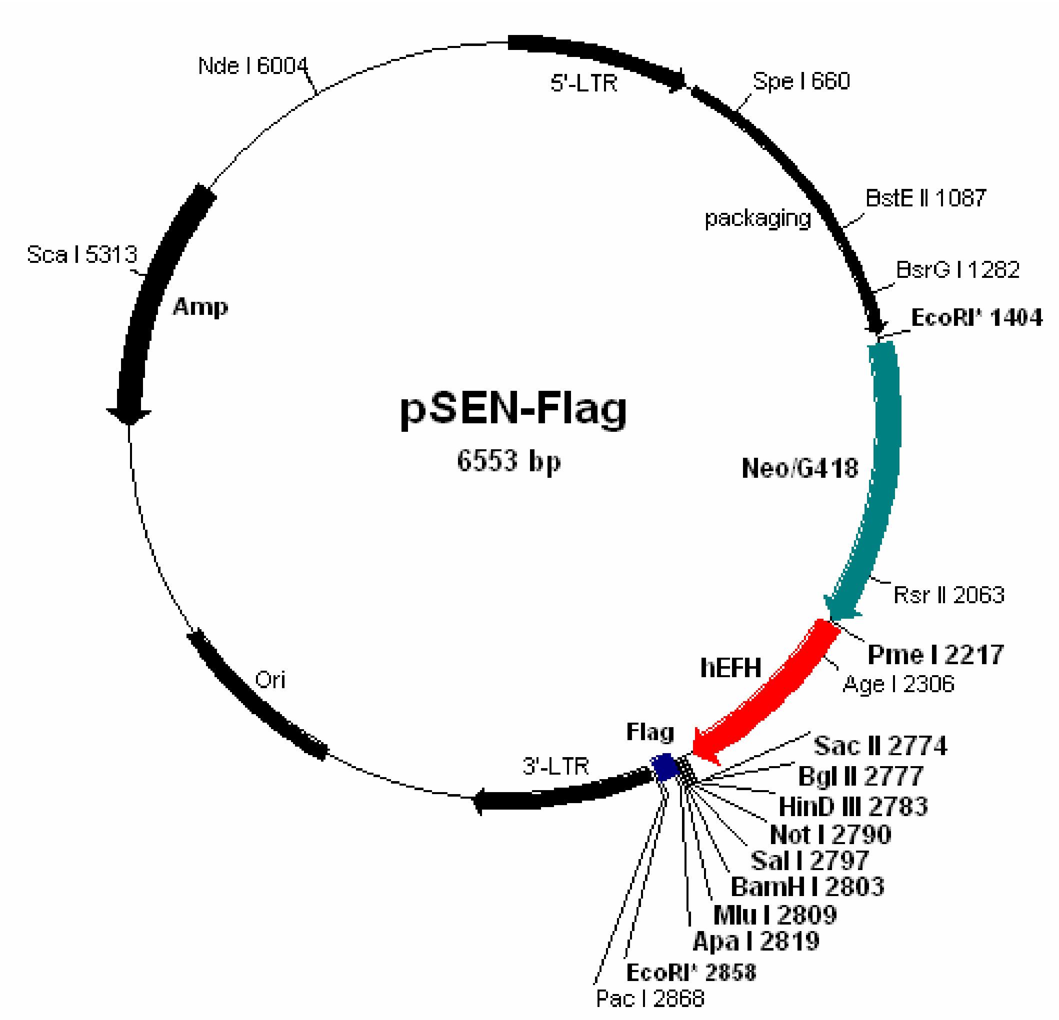
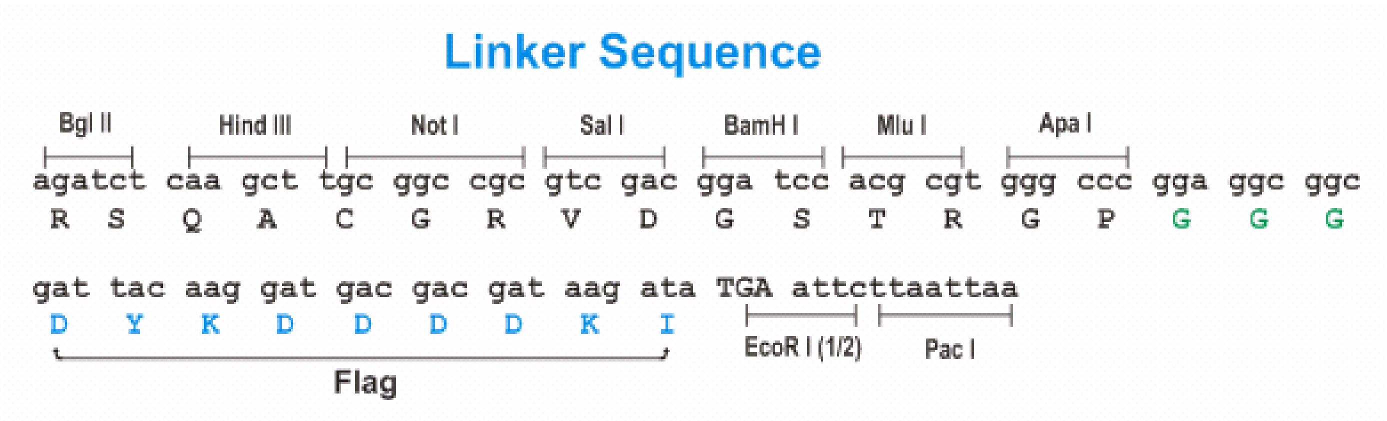
Vector: pSEN-Flag

Antibiotic Selection: Amp

Creator(s): Hong Yin, Molecular Oncology Lab of The University of Chicago

Date of Construction: Dec, 2005





pSEN-Flag (human EF1a/HLTV hybrid promoter) Full-Length Sequence

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TTAGGAACAGAGAGACAGCAGAATATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCCTCCCCGGCTCAGGGCCAAGAACAGATGGTCCCCAGATGCGGTCCCGC
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GCCG CAACCCTGGG AGACGTCCCAGGGACTTTGGGGGCCGTTTTTGTGGCCCGACCTGAGGAAGGGAGTCGATGTGGAATCCGACCCCGTCAGGATATGTGGTT
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GCATCGTTCT GTGTTGTCTC TGTCTGACTGTGTTTCTGTA TTTGTCTGAA AATTAGGGCC AGACTGTTAC CACTCCCTTAAGTTTGACCTTAGGTCACTG
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CCCCCTTGAACCTCCTCGTTCGACCCCGCCTCGATCCTCCCTTTATCCAGCCCTCACTCCTTCTCTAGGCGCCG**GAATTCaccatgggc**ATGATTGAACAAGATGG
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AATGGTGCAT GCAAGGAGAT GGCGCCCAACAGTCCCCCGG CCACGGGGCCTGCCACCATA CCCACGCCGA AACAAGCGCT CATGAGCCCGAAGTGGCGAG
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TAAAAGATTT TATTTAGTCT CCAGAAAAAG GGGGGAA

Unique enzymes in pSEN-Flag:

Spe I	A`CTAG,T	660
BstE II	G`GTNAC,C	1087
BsrG I	T`GTAC,A	1282
Bsp1286 I	G,DGCH`C	1850
BsaA I	YAC|GTR	1851
Rsr II	CG`GWC,CG	2063
Pme I	CTTT|AAAC	2217
Mun I	C`AATT,G	2299
Age I	A`CCGG,T	2306
Bsg I	GTGCAG 22/20	2424
Cla I	AT`CG,AT	2766
Sac II	CC,GC`GG	2774
Bgl II	A`GATC,T	2777
HinD III	A`AGCT,T	2783
Not I	GC`GGCC,GC	2790
Sal I	G`TCGA,C	2797
Acc I	GT`MK,AC	2798
HinC II	GTY|RAC	2799
Hind II	GTY|RAC	2799
BamH I	G`GATC,C	2803
Mlu I	A`CGCG,T	2809

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Bsp120 I    G`GGCC,C        2815
Apa I       G,GGCC`C        2819
Pac I       TTA,AT`TAA      2868
Sca I       AGT|ACT         5313
Nde I       CA`TA,TG        6004
Number of enzymes = 26
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The following enzymes do not cut in pSEN-Flag:

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Avr II      Bbs I       Bbv II      Bcl I       Blp I
BsaB I      BsiC I      BsiW I      Bsm I       BspM II
Bst1107 I   BstB I      BstX I      Dra III     Eco72 I
Esp I       Fse I       Hpa I       Nru I       Nsi I
PaeR7 I     PflM I      Pml I       Sfi I       SnaB I
Spl I       Srf I       Stu I       Xca I       Xcm I
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pSEN-Flag: sites sorted by name:

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Aat II      (2)   745      5755
Acc I       (1)   2798
Acc65 I     (2)   401      3318
Aci I       (78)  197      203      566      588
                  688      727      860      901
                  1042     1133     1199     1298
                  1317     1355     1456     1519
                  1613     1677     1778     1781
                  2021     2061     2066     2116
                  2132     2158     2328     2365
                  2445     2501     2504     2519
                  2550     2557     2584     2771
                  2773     2789     2793     2825
                  3114     3120     3416     3630
                  3733     3789     3799     3823
                  3866     3873     3894     3985
                  4013     4140     4159     4280
                  4390     4525     4534     4896
                  4987     5178     5224     5345
                  5389     5466     5575     5674
                  5721     5895     5934     5944
                  5970     6008     6021     6047
                  6104     6363
Afl II      (3)   35       1006     2950
Afl III     (2)   2809     3940
Age I       (1)   2306
Aha II      (10)  742      1398     1547     2757
                  5370     5752     6056     6239
                  6353     6374
Ahd I       (4)   1020     3363     3409     4833
Alu I       (33)  30       34       336      580
                  668      676      1653     2111
                  2458     2464     2468     2606
                  2747     2785     2945     2949
                  3253     3572     3605     3700
                  3764     3882     4108     4198
                  4244     4501     5022     5122
                  5185     5864     5883     6128
                  6484
Alw I       (18)  453      1051     1357     1725
                  1792     1971     2735     2763
                  2799     2810     4502     4588
                  4588     4685     4686     5150
                  5465     5471
AlwN I      (2)   3074     4356
Apa I       (1)   2819
ApaL I      (3)   4254     5500     5997
Apo I       (3)   872      1404     2858
Asc I       (2)   368      3285
Ase I       (4)   3583     3711     3770     5005
Asp718      (2)   401      3318
Ava I       (7)   331      397      498      2273
                  2375     3248     3314
Ava II      (13)  186      199      254      551
                  690      1219     2063     3103
                  3116     3171     4971     5193
                  6448
BamH I      (1)   2803
Ban I       (18)  244      401      1142     1397
                  1546     1581     2234     2309
                  2565     2756     3161     3318
                  3684     4781     6055     6238
                  6352     6373
Ban II      (9)   338      351      1912     2480
                  2819     3255     3268     6305
                  6319
Bbe I       (7)   1401     1550     2760     6059
                  6242     6356     6377
Bbv I       (11)  931      939      1620     1662
                  2183     2236     4359     4362
                  4568     5262     5873
Bcn I       (18)  164      399      400      571
                  724      1552     1712     2621
                  2820     3081     3316     3317
                  4321     5017     5368     5869
                  5904     6255
Bfa I       (15)  31       219      661      673
                  1394     2314     2465     2591
                  2653     2946     3136     4435
                  4688     5023     6458
Bgl I       (2)   4953     6071
Bgl II      (1)   2777
Bpm I       (3)   2883     4903     6521
Bsa I       (7)   476      530      1149     2609
                  3371     3392     4894
BsaA I      (1)   1851
BsaH I      (10)  742      1398     1547     2757
                  5370     5752     6056     6239
                  6353     6374
BsaJ I      (34)  161      240      250      397
                  461      497      546      547
                  694      733      734      746
                  747      1167     1236     1245
                  1265     1266     1411     1710
                  1979     2376     2640     2771
                  3078     3157     3167     3314
                  3377     3679     4100     6174
                  6252     6258
BsaW I      (6)   1578     2231     2306     4146
                  4293     5124
BseR I      (4)   464      1293     1332     3380
Bsg I       (1)   2424
BsiE I      (9)   592      727      1456     2793
                  3856     4280     5203     5352
                  6099
BsiHKA I    (8)   338      1660     1850     3255
                  4258     5419     5504     6001
BsmA I      (21)  107      475      531      609
                  734      832      949      1073
                  1132     1150     1328     2610
                  2900     3023     3370     3391
                  4895     5669     5822     5866
                  6538
BsmB I      (7)   733      831      1072     1131
                  1329     5823     5865
BsmF I      (11)  172      185      564      729
                  764      1205     1698     2255
                  3089     3102     6234
BsoF I      (48)  727      901      917      920
                  925      928      1133     1456
                  1508     1519     1609     1614
                  1651     1692     1779     1782
                  1785     2021     2117     2158
                  2172     2225     2445     2504
                  2519     2550     2790     2793
                  2826     3765     3846     3864
                  3867     3985     4140     4283
                  4348     4351     4557     4885
                  5224     5251     5346     5575
                  5862     5971     6075     6148
Bsp120 I    (1)   2815
Bsp1286 I   (1)   1850
BspH I      (4)   4660     5668     5773     6297
BspM I      (2)   1434     1815
Bsr I       (18)  374      1030     1058     1490
                  1691     2341     2362     3291
                  3741     4347     4360     4474
                  4880     4998     5041     5308
                  5480     6186
BsrB I      (5)   1042     2160     3632     3873
                  5674
BsrD I      (3)   1780     4894     5068
BsrG I      (1)   1282
BssH II     (5)   317      368      1944     3234
                  3285
BssS I      (4)   2139     4113     5497     5804
BstE II     (1)   1087
BstN I      (17)  241      548      735      748
                  1169     1194     1217     1237
                  1267     1934     3158     3680
                  3968     4089     4102     6175
                  6452
BstU I      (28)  317      319      370      903
                  905      1135     1613     1914
                  1946     2328     2497     2542
                  2773     2795     2811     3234
                  3236     3287     3787     3789
                  3987     4568     4898     5391
                  5723     5823     5825     5928
BstY I      (11)  1718     1964     2739     2777
                  2803     4581     4592     4678
                  4690     5458     5475
Bsu36 I     (3)   781      1018     2513
Cac8 I      (45)  28       32       319      370
                  582      586      631      650
                  1199     1441     1627     1846
                  1912     1918     1946     1950
                  1991     1995     2049     2466
                  2480     2501     2664     2692
                  2787     2943     2947     3236
                  3287     3733     3762     3871
                  3957     3994     4554     4945
                  5958     6106     6126     6130
                  6226     6267     6315     6357
                  6387
Cfr10 I     (10)  629      1866     2047     2306
                  2530     2662     2753     4913
                  6376     6385
Cla I       (1)   2766
Csp6 I      (9)   402      658      1283     1852
                  2356     3319     5312     5988
                  6499
Dde I       (23)  75       167      208      476
                  781      1018     1290     2210
                  2513     2607     2658     2781
                  2990     3084     3125     3394
                  3465     4215     4624     4790
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                  5330     5756     5991
Dpn I       (30)  94       459      1046     1178
                  1363     1720     1798     1879
                  1888     1966     2741     2769
                  2779     2805     3010     4508
                  4583     4594     4602     4680
                  4692     4797     5138     5156
                  5202     5460     5477     5513
                  6098     6322
DpnII       (30)  92       457      1044     1176
                  1361     1718     1796     1877
                  1886     1964     2739     2767
                  2777     2803     3008     4506
                  4581     4592     4600     4678
                  4690     4795     5136     5154
                  5200     5458     5475     5511
                  6096     6320
Dra I       (5)   2217     2602     4699     4718
                  5410
Drd I       (3)   1574     4048     5917
Dsa I       (5)   694      1411     1979     2771
                  6258
Eae I       (13)  582      724      1109     1130
                  1453     1627     2018     2045
                  2790     3779     5221     6255
                  6387
Eag I       (3)   724      1453     2790
Ear I       (8)   1070     1311     1891     2101
                  3562     3824     5628     6116
Eco47 III   (3)   923      2228     6294
Eco57 I     (6)   1692     2124     2479     4487
                  5501     6505
EcoN I      (4)   784      1392     2317     2512
EcoO109 I   (5)   254      1219     3171     5809
                  6263
EcoR I      (2)   1404     2858
EcoR II     (17)  239      546      733      746
                  1167     1192     1215     1235
                  1265     1932     3156     3678
                  3966     4087     4100     6173
                  6450
EcoR V      (3)   140      3056     6441
Ehe I       (7)   1399     1548     2758     6057
                  6240     6354     6375
Fnu4H I     (48)  727      901      917      920
                  925      928      1133     1456
                  1508     1519     1609     1614
                  1651     1692     1779     1782
                  1785     2021     2117     2158
                  2172     2225     2445     2504
                  2519     2550     2790     2793
                  2826     3765     3846     3864
                  3867     3985     4140     4283
                  4348     4351     4557     4885
                  5224     5251     5346     5575
                  5862     5971     6075     6148
Fok I       (13)  423      1140     1300     1871
                  1896     2509     2851     3339
                  4799     4980     5267     5910
                  6154
Fsp I       (3)   1649     5055     6078
Gdi II      (13)  723      725      1129     1452
                  1454     2017     2044     2789
                  2791     3780     5220     6256
                  6388
Gsu I       (3)   2884     4904     6522
Hae I       (6)   584      1111     1629     3955
                  3966     4418
Hae II      (13)  925      1401     1550     2230
                  2637     2760     3818     4188
                  6059     6242     6296     6356
                  6377
Hae III     (33)  129      173      584      726
                  762      774      987      1111
                  1132     1197     1455     1629
                  2020     2047     2518     2623
                  2792     2817     3045     3090
                  3781     3955     3966     3984
                  4418     4876     4956     5223
                  5810     6108     6257     6265
                  6389
Hga I       (11)  381      642      895      2570
                  2785     3298     4050     4628
                  5360     5918     6387
HgiA I      (8)   338      1660     1850     3255
                  4258     5419     5504     6001
HgiE II     (2)   4519     5999
Hha I       (50)  319      321      370      372
                  648      905      924      1400
                  1541     1549     1613     1650
                  1916     1946     1948     2176
                  2229     2256     2328     2499
                  2636     2731     2759     3236
                  3238     3287     3289     3564
                  3724     3789     3817     3850
                  4120     4187     4287     4461
                  4570     4963     5056     5393
                  5725     5825     5928     6058
                  6079     6212     6241     6295
                  6355     6376
HinC II     (1)   2799
Hind II     (1)   2799
HinD III    (1)   2783
Hinf I      (17)  442      450      791      802
                  2032     2166     2537     2656
                  3475     3497     3518     3775
                  3840     3915     4311     4828
                  6466
HinI I      (10)  742      1398     1547     2757
                  5370     5752     6056     6239
                  6353     6374
HinP I      (50)  317      319      368      370
                  646      903      922      1398
                  1539     1547     1611     1648
                  1914     1944     1946     2174
                  2227     2254     2326     2497
                  2634     2729     2757     3234
                  3236     3285     3287     3562
                  3722     3787     3815     3848
                  4118     4185     4285     4459
                  4568     4961     5054     5391
                  5723     5823     5926     6056
                  6077     6210     6239     6293
                  6353     6374
Hpa II      (40)  163      398      569      630
                  723      1401     1452     1529
                  1551     1579     1710     1800
                  1867     2048     2232     2307
                  2531     2619     2631     2663
                  2754     2819     3080     3315
                  3658     4147     4294     4320
                  4510     4914     4948     5015
                  5125     5367     5868     5902
                  6254     6377     6386     6401
Hph I       (14)  1157     1183     1401     1726
                  4677     4904     5318     5526
                  5559     5843     5852     6345
                  6390     6471
Kas I       (7)   1397     1546     2756     6055
                  6238     6352     6373
Kpn I       (2)   405      3322
Mae I       (15)  31       219      661      673
                  1394     2314     2465     2591
                  2653     2946     3136     4435
                  4688     5023     6458
Mae II      (12)  742      1081     1122     1663
                  1850     2421     2704     4643
                  5059     5432     5752     6194
Mae III     (22)  39       994      1022     1087
                  1231     1667     1973     2733
                  2749     2954     3432     4296
                  4359     4475     4758     5089
                  5147     5300     5488     5876
                  6167     6187
Mbo I       (30)  92       457      1044     1176
                  1361     1718     1796     1877
                  1886     1964     2739     2767
                  2777     2803     3008     4506
                  4581     4592     4600     4678
                  4690     4795     5136     5154
                  5200     5458     5475     5511
                  6096     6320
Mbo II      (14)  1086     1299     1907     2117
                  2199     3578     3812     4601
                  4674     5429     5507     5616
                  6104     6316
Mlu I       (1)   2809
Mme I       (6)   829      1106     3379     3431
                  4154     4338
Mnl I       (54)  167      216      368      387
                  432      460      484      506
                  510      566      776      872
                  1168     1271     1304     1310
                  1313     1319     1349     1352
                  1367     1374     1390     1462
                  1598     1955     2147     2282
                  2371     2466     2508     2562
                  2578     2815     3133     3285
                  3304     3349     3376     3400
                  3460     3789     3838     4048
                  4121     4372     4772     4853
                  4999     5205     5800     5858
                  6118     6402
Msc I       (3)   584      1111     1629
Mse I       (26)  36       1007     1119     1149
                  1173     2216     2601     2864
                  2868     2951     3485     3583
                  3711     3770     4646     4698
                  4703     4717     4770     5005
                  5044     5409     5781     5962
                  6159     6429
Msl I       (4)   1416     1984     5085     5244
Msp I       (40)  163      398      569      630
                  723      1401     1452     1529
                  1551     1579     1710     1800
                  1867     2048     2232     2307
                  2531     2619     2631     2663
                  2754     2819     3080     3315
                  3658     4147     4294     4320
                  4510     4914     4948     5015
                  5125     5367     5868     5902
                  6254     6377     6386     6401
MspA1 I     (12)  588      1653     2458     2773
                  3416     3764     4282     4527
                  5468     5934     6128     6484
Mun I       (1)   2299
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Nae I       (4)   631      2049     2664     6387
Nar I       (7)   1398     1547     2757     6056
                  6239     6353     6374
Nci I       (18)  163      398      399      570
                  723      1551     1711     2620
                  2819     3080     3315     3316
                  4320     5016     5367     5868
                  5903     6254
Nco I       (2)   1411     1979
Nde I       (1)   6004
NgoM I      (4)   629      2047     2662     6385
Nhe I       (3)   30       2464     2945
Nla III     (23)  62       1205     1415     1421
                  1766     1952     1983     2009
                  2224     2977     3431     3598
                  3944     4664     5155     5165
                  5243     5279     5672     5777
                  5861     6228     6301
Nla IV      (39)  188      201      246      403
                  521      552      692      761
                  893      1144     1221     1399
                  1548     1583     2236     2311
                  2363     2567     2646     2758
                  2805     2817     3105     3118
                  3163     3320     3686     3972
                  4011     4783     4877     4918
                  5129     5719     6057     6240
                  6264     6354     6375
Not I       (1)   2790
Nsp7524 I   (5)   1948     2220     3940     5857
                  6224
NspB II     (12)  588      1653     2458     2773
                  3416     3764     4282     4527
                  5468     5934     6128     6484
NspH I      (5)   1952     2224     3944     5861
                  6228
Pac I       (1)   2868
Pal I       (33)  129      173      584      726
                  762      774      987      1111
                  1132     1197     1455     1629
                  2020     2047     2518     2623
                  2792     2817     3045     3090
                  3781     3955     3966     3984
                  4418     4876     4956     5223
                  5810     6108     6257     6265
                  6389
Ple I       (4)   799      2545     3483     4319
Pme I       (1)   2217
PpuM I      (3)   254      1219     3171
Psp1406 I   (3)   2421     5059     5432
PspA I      (2)   397      3314
Pst I       (4)   921      929      1105     1600
Pvu I       (2)   5203     6099
Pvu II      (5)   1653     2458     3764     6128
                  6484
Rsa I       (9)   403      659      1284     1853
                  2357     3320     5313     5989
                  6500
Rsr II      (1)   2063
Sac I       (2)   338      3255
Sac II      (1)   2774
Sal I       (1)   2797
Sap I       (4)   1891     2101     3562     3824
Sau3A I     (30)  92       457      1044     1176
                  1361     1718     1796     1877
                  1886     1964     2739     2767
                  2777     2803     3008     4506
                  4581     4592     4600     4678
                  4690     4795     5136     5154
                  5200     5458     5475     5511
                  6096     6320
Sau96 I     (29)  127      171      186      199
                  254      551      690      760
                  773      985      1196     1219
                  2063     2621     2815     2816
                  3043     3088     3103     3116
                  3171     4875     4954     4971
                  5193     5809     6106     6263
                  6448
Sca I       (1)   5313
ScrF I      (35)  163      241      398      399
                  548      570      723      735
                  748      1169     1194     1217
                  1237     1267     1551     1711
                  1934     2620     2819     3080
                  3158     3315     3316     3680
                  3968     4089     4102     4320
                  5016     5367     5868     5903
                  6175     6254     6452
Sec I       (34)  161      240      250      397
                  461      497      546      547
                  694      733      734      746
                  747      1167     1236     1245
                  1265     1266     1411     1710
                  1979     2376     2640     2771
                  3078     3157     3167     3314
                  3377     3679     4100     6174
                  6252     6258
SfaN I      (23)  185      444      641      938
                  1506     1761     1845     1909
                  1977     2184     2490     3102
                  3360     4036     5088     5281
                  5528     5889     5981     6019
                  6057     6373     6385
Sfc I       (10)  15       917      925      1101
                  1596     2930     4205     4396
                  5074     6492
Sma I       (2)   399      3316
Spe I       (1)   660
Sph I       (2)   1952     6228
Ssp I       (2)   3483     5637
Sty I       (8)   250      461      1245     1411
                  1979     2640     3167     3377
Taq I       (16)  794      1038     1349     1360
                  1660     1816     1840     1876
                  2038     2471     2613     2766
                  2798     3478     4040     5484
Tfi I       (7)   442      802      2032     2166
                  3518     3775     3915
Tsp45 I     (9)   1022     1231     1667     1973
                  2749     5089     5300     5876
                  6187
Tth111 I    (5)   390      811      1217     1665
                  3307
Tth111 II   (10)  146      422      613      632
                  1983     2680     3062     4529
                  4538     4568
Vsp I       (4)   3583     3711     3770     5005
Xba I       (2)   218      3135
Xho II      (11)  1718     1964     2739     2777
                  2803     4581     4592     4678
                  4690     5458     5475
Xma I       (2)   397      3314
Xma III     (3)   724      1453     2790
Xmn I       (3)   3546     3584     5432
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Site usage in pSEN-Flag:

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Aat II     G,ACGT`C         2      Acc I      GT`MK,AC         1
Acc65 I    G`GTAC,C         2      Aci I      C`CG,C           78
Afl II     C`TTAA,G         3      Afl III    A`CRYG,T         2
Age I      A`CCGG,T         1      Aha II     GR`CG,YC         10
Ahd I      GACNN,N`NNGTC    4      Alu I      AG|CT            33
Alw I      GGATC 8/9        18     AlwN I     CAG,NNN`CTG      2
Apa I      G,GGCC`C         1      ApaL I     G`TGCA,C         3
Apo I      R`AATT,Y         3      Asc I      GG`CGCG,CC       2
Ase I      AT`TA,AT         4      Asp718     G`GTAC,C         2
Ava I      C`YCGR,G         7      Ava II     G`GWC,C          13
Avr II     C`CTAG,G         -      BamH I     G`GATC,C         1
Ban I      G`GYRC,C         18     Ban II     G,RGCY`C         9
Bbe I      G,GCGC`C         7      Bbs I      GAAGAC 8/12      -
Bbv I      GCAGC 13/17      11     Bbv II     GAAGAC 7/11      -
Bcl I      T`GATC,A         -      Bcn I      CC,S`GG          18
Bfa I      C`TA,G           15     Bgl I      GCCN,NNN`NGGC    2
Bgl II     A`GATC,T         1      Blp I      GC`TNA,GC        -
Bpm I      CTGGAG 22/20     3      Bsa I      GGTCTC 7/11      7
BsaA I     YAC|GTR          1      BsaB I     GATNN|NNATC      -
BsaH I     GR`CG,YC         10     BsaJ I     C`CNNG,G         34
BsaW I     W`CCGG,W         6      BseR I     GAGGAG 16/14     4
Bsg I      GTGCAG 22/20     1      BsiC I     TT`CG,AA         -
BsiE I     CG,RY`CG         9      BsiHKA I   G,WGCW`C         8
BsiW I     C`GTAC,G         -      Bsm I      GAATG,C 7        -
BsmA I     GTCTC`/9         21     BsmB I     CGTCTC 7/11      7
BsmF I     GGGAC 15/19      11     BsoF I     GC`N,GC          48
Bsp120 I   G`GGCC,C         1      Bsp1286 I  G,DGCH`C         1
BspH I     T`CATG,A         4      BspM I     ACCTGC 10/14     2
BspM II    T`CCGG,A         -      Bsr I      ACT,GG`          18
BsrB I     GAG|CGG          5      BsrD I     GCAATG, 8        3
BsrG I     T`GTAC,A         1      BssH II    G`CGCG,C         5
BssS I     C`TCGT,G         4      Bst1107 I  GTA|TAC          -
BstB I     TT`CG,AA         -      BstE II    G`GTNAC,C        1
BstN I     CC`W,GG          17     BstU I     CG|CG            28
BstX I     CCAN,NNNN`NTGG   -      BstY I     R`GATC,Y         11
Bsu36 I    CC`TNA,GG        3      Cac8 I     GCN|NGC          45
Cfr10 I    R`CCGG,Y         10     Cla I      AT`CG,AT         1
Csp6 I     G`TA,C           9      Dde I      C`TNA,G          23
Dpn I      GA|TC            30     DpnII      `GATC,           30
Dra I      TTT|AAA          5      Dra III    CAC,NNN`GTG      -
Drd I      GACNN,NN`NNGTC   3      Dsa I      C`CRYG,G         5
Eae I      Y`GGCC,R         13     Eag I      C`GGCC,G         3
Ear I      CTCTTC 7/10      8      Eco47 III  AGC|GCT          3
Eco57 I    CTGAAG 21/19     6      Eco72 I    CAC|GTG          -
EcoN I     CCTNN`N,NNAGG    4      EcoO109 I  RG`GNC,CY        5
EcoR I     G`AATT,C         2      EcoR II    `CCWGG,          17
EcoR V     GAT|ATC          3      Ehe I      GGC|GCC          7
Esp I      GC`TNA,GC        -      Fnu4H I    GC`N,GC          48
Fok I      GGATG 14/18      13     Fse I      GG,CCGG`CC       -
Fsp I      TGC|GCA          3      Gdi II     `YGGC,CG         13
Gsu I      CTGGAG 21/19     3      Hae I      WGG|CCW          6
Hae II     R,GCGC`Y         13     Hae III    GG|CC            33
Hga I      GACGC 9/14       11     HgiA I     G,WGCW`C         8
HgiE II    ACCNNNNNNGGT -1/132      Hha I      G,CG`C           50
HinC II    GTY|RAC          1      Hind II    GTY|RAC          1
HinD III   A`AGCT,T         1      Hinf I     G`ANT,C          17
HinI I     GR`CG,YC         10     HinP I     G`CG,C           50
Hpa I      GTT|AAC          -      Hpa II     C`CG,G           40
Hph I      GGTGA 12/11      14     Kas I      G`GCGC,C         7
Kpn I      G,GTAC`C         2      Mae I      C`TA,G           15
Mae II     A`CG,T           12     Mae III    `GTNAC,          22
Mbo I      `GATC,           30     Mbo II     GAAGA 12/11      14
Mlu I      A`CGCG,T         1      Mme I      TCCRAC 25/23     6
Mnl I      CCTC 10/10       54     Msc I      TGG|CCA          3
Mse I      T`TA,A           26     Msl I      CAYNN|NNRTG      4
Msp I      C`CG,G           40     MspA1 I    CMG|CKG          12
Mun I      C`AATT,G         1      Nae I      GCC|GGC          4
Nar I      GG`CG,CC         7      Nci I      CC`S,GG          18
Nco I      C`CATG,G         2      Nde I      CA`TA,TG         1
NgoM I     G`CCGG,C         4      Nhe I      G`CTAG,C         3
Nla III    ,CATG`           23     Nla IV     GGN|NCC          39
Not I      GC`GGCC,GC       1      Nru I      TCG|CGA          -
Nsi I      A,TGCA`T         -      Nsp7524 I  R`CATG,Y         5
NspB II    CMG|CKG          12     NspH I     R,CATG`Y         5
Pac I      TTA,AT`TAA       1      PaeR7 I    C`TCGA,G         -
Pal I      GG|CC            33     PflM I     CCAN,NNN`NTGG    -
Ple I      GAGTC 9/10       4      Pme I      CTTT|AAAC        1
Pml I      CAC|GTG          -      PpuM I     RG`GWC,CY        3
Psp1406 I  AA`CG,TT         3      PspA I     C`CCGG,G         2
Pst I      C,TGCA`G         4      Pvu I      CG,AT`CG         2
Pvu II     CAG|CTG          5      Rsa I      GT|AC            9
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Rsr II     CG`GWC,CG        1     Sac I      G,AGCT`C         2                        Srf I      GCCC|GGGC        -     Ssp I      AAT|ATT          2
Sac II     CC,GC`GG         1     Sal I      G`TCGA,C         1                        Stu I      AGG|CCT          -     Sty I      C`CWWG,G         8
Sap I      GCTCTTC 8/11     4     Sau3A I    `GATC,           30                       Taq I      T`CG,A           16    Tfi I      G`AWT,C          7
Sau96 I    G`GNC,C          29    Sca I      AGT|ACT          1                        Tsp45 I    `GTSAC,          9     Tth111 I   GACN`N,NGTC      5
ScrF I     CC`N,GG          35    Sec I      C`CNNG,G         34                       Tth111 II  CAARCA 16/14     10    Vsp I      AT`TA,AT         4
SfaN I     GCATC 9/13       23    Sfc I      C`TRYA,G         10                       Xba I      T`CTAG,A         2     Xca I      GTA|TAC          -
Sfi I      GGCCN,NNN`NGGCC  -     Sma I      CCC|GGG          2                        Xcm I      CCANNNN,N`NNNNTGG-     Xho I      C`TCGA,G         -
SnaB I     TAC|GTA          -     Spe I      A`CTAG,T         1                        Xho II     R`GATC,Y         11    Xma I      C`CCGG,G         2
Sph I      G,CATG`C         2     Spl I      C`GTAC,G         -                        Xma III    C`GGCC,G         3     Xmn I      GAANN|NNTTC      3
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