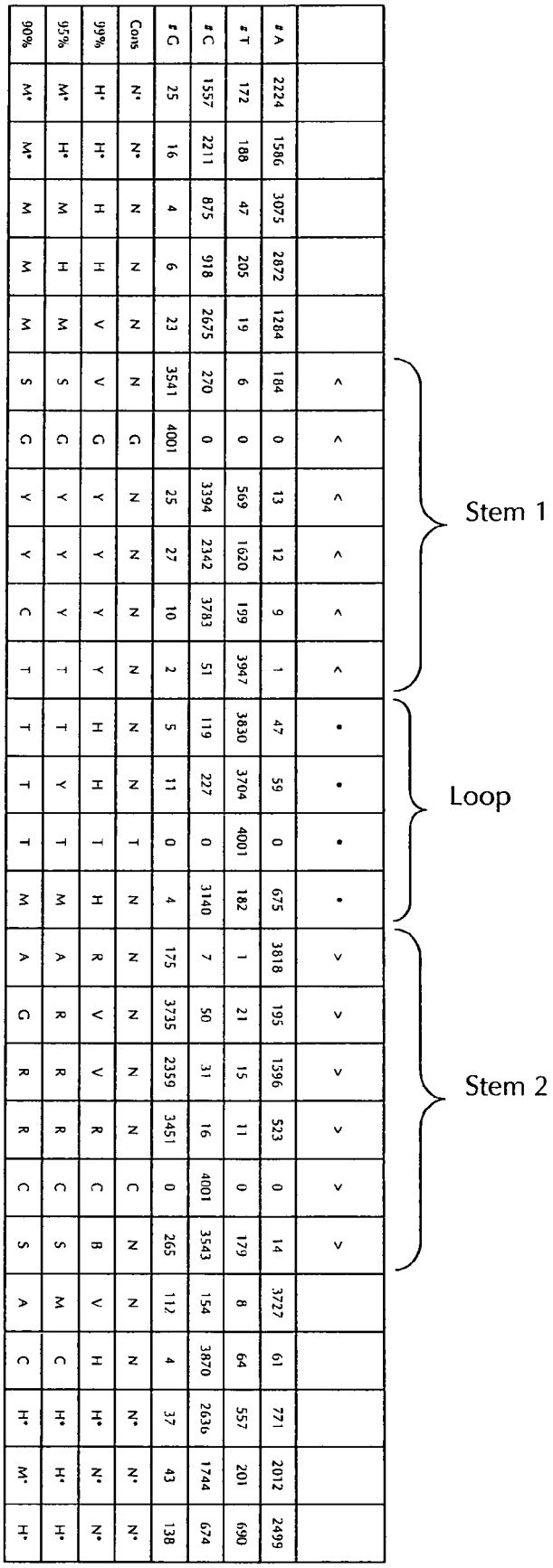



Figure 1

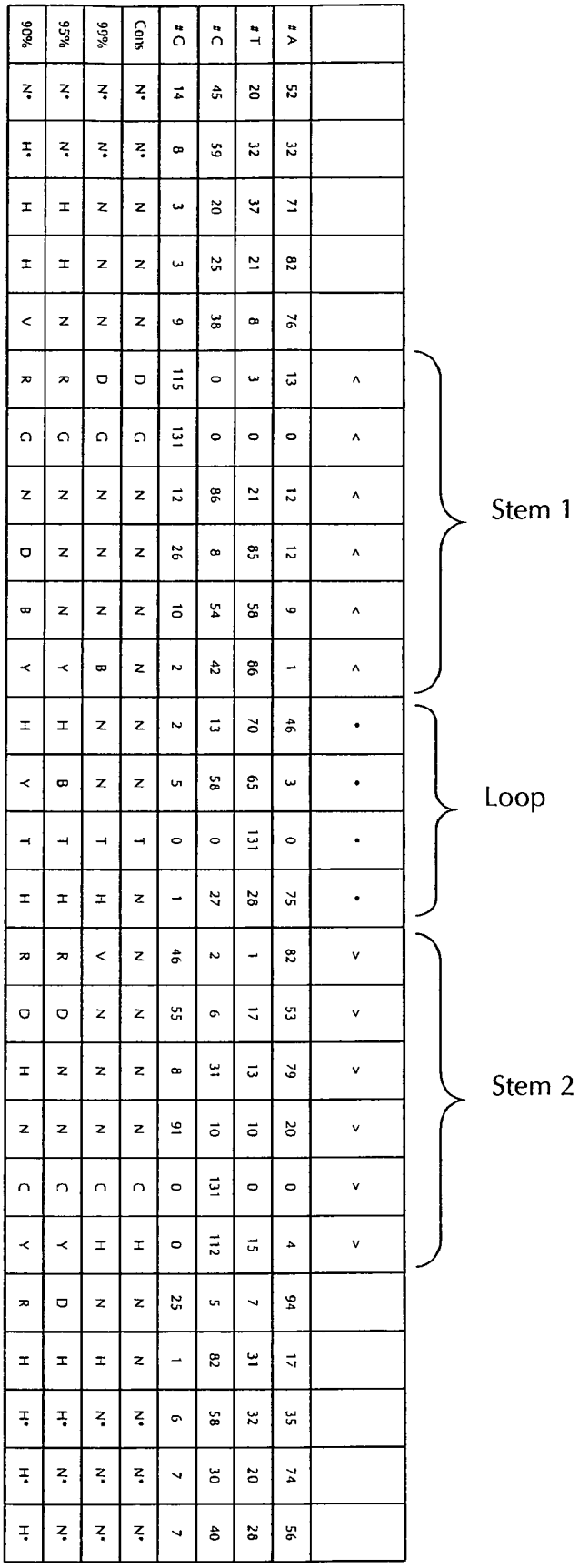



Figure 2

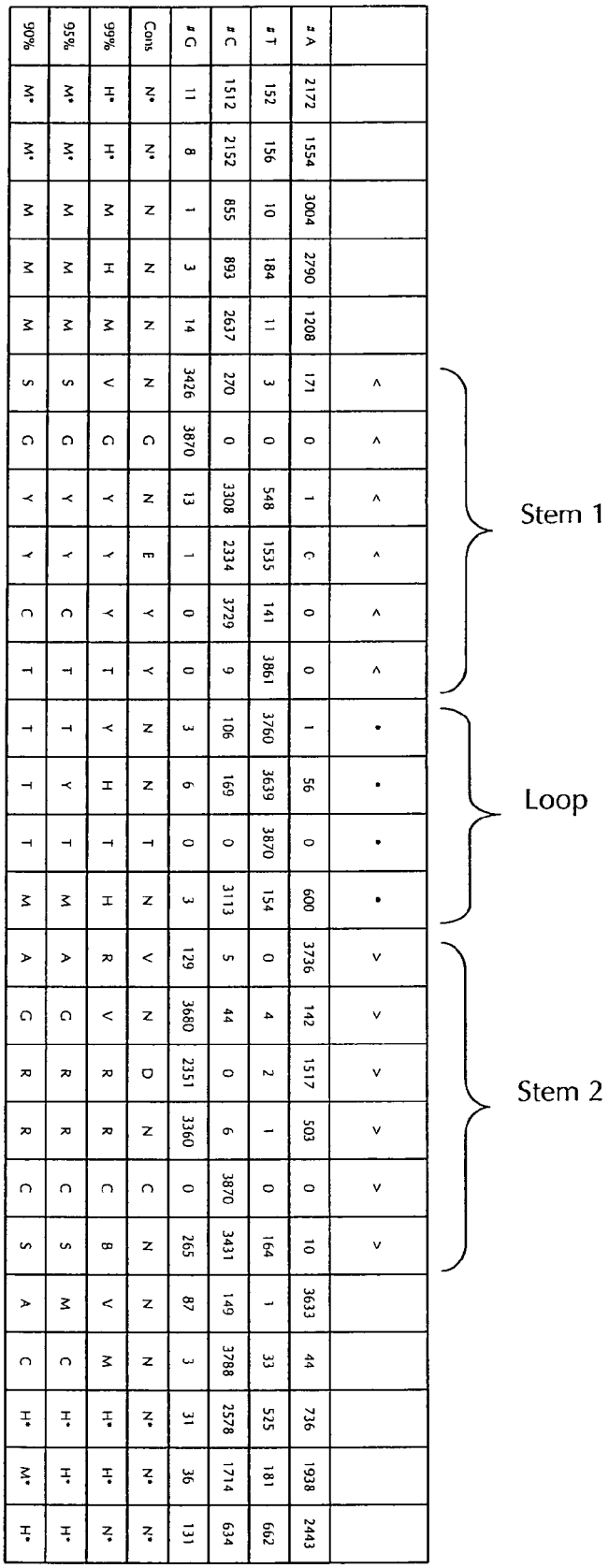



Figure 3

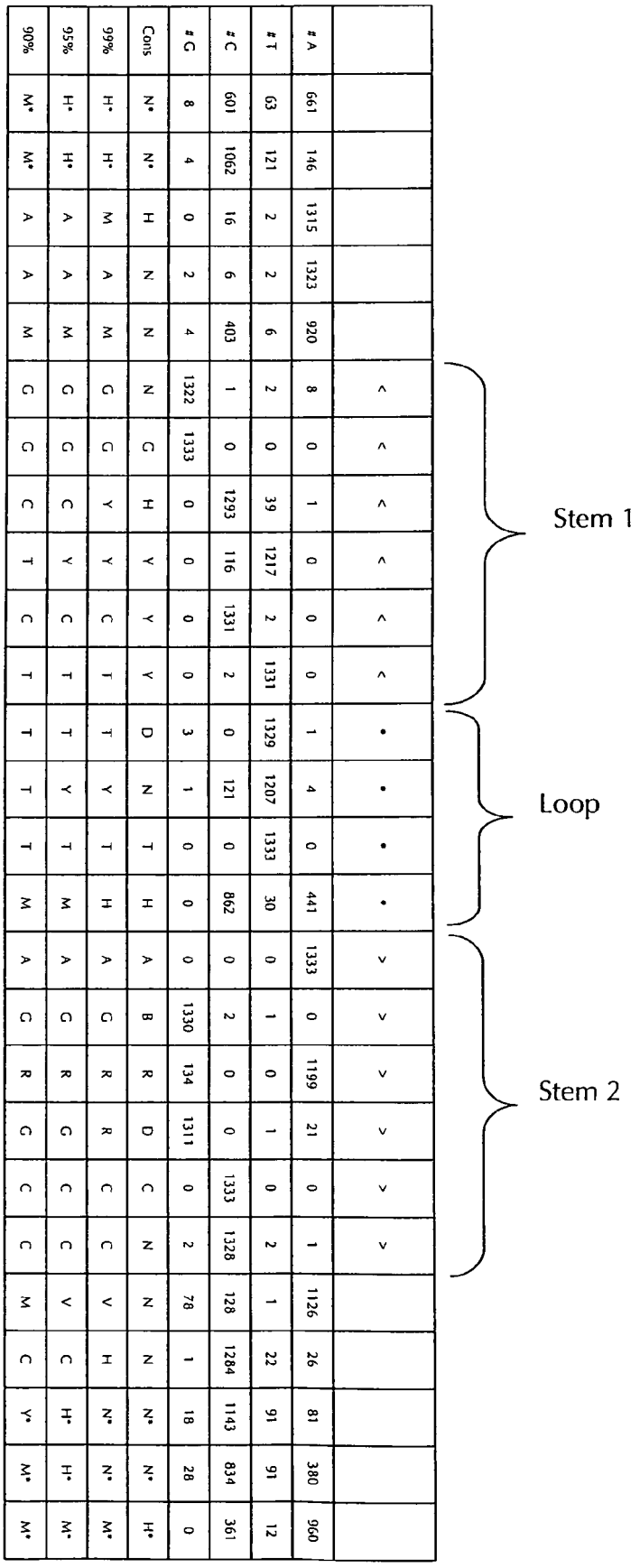



Figure 4

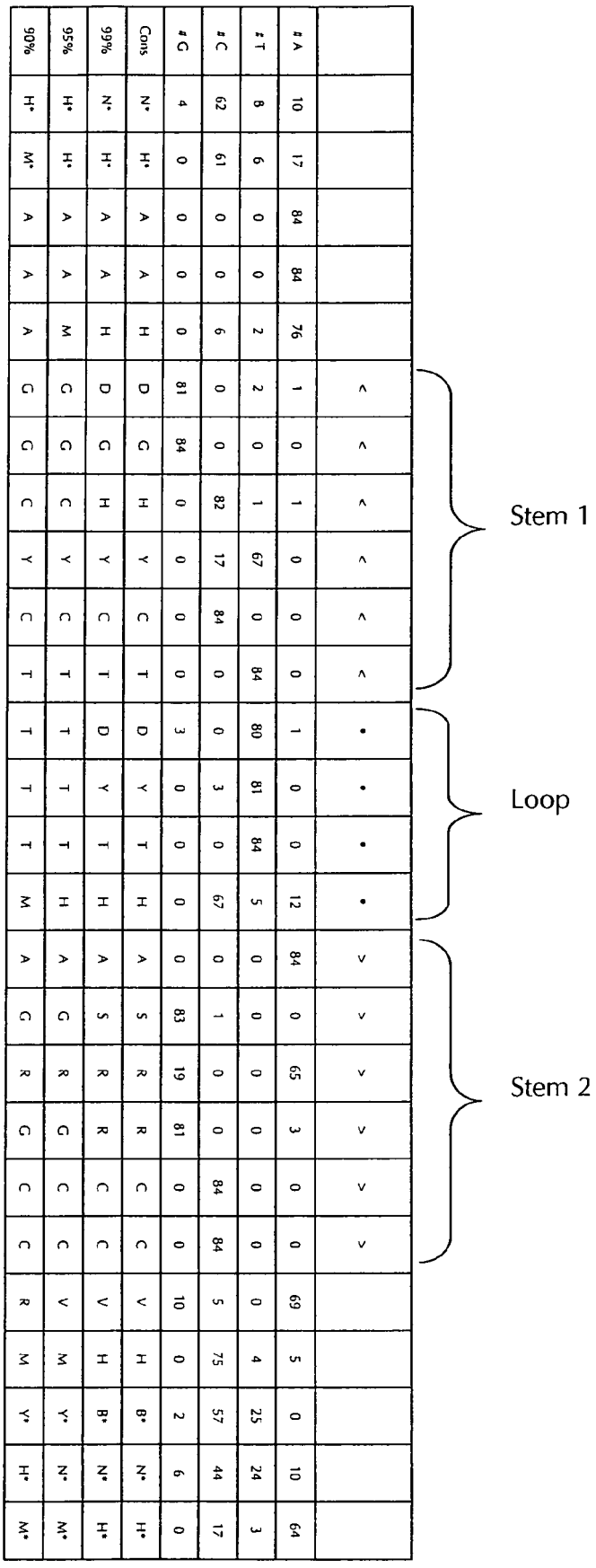



Figure 5

ppLuc(GC) – ag

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GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
GAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUU
CGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGG
GGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGG
CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGCC
GAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGA
CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
GAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGA
CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auagauc-3′

Figure 6

ppLuc(GC) – ag – A64

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
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GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCC
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CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
GAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGA
CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAA-3′

Figure 7

ppLuc(GC) – ag – histoneSL

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
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CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
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CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
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CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
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CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auagaucuCAAAGGCUCUUUUCAGAGCCACCA-3′

Figure 8

ppLuc(GC) – ag – A64 – histoneSL

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
GAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUU
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CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCC
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CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
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GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAugcauCAAAGGCUCUUUUCAGAGCCACCA-3′

Figure 9

ppLuc(GC) – ag – A120

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GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
GAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUU
CGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGG
GGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGG
CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCC
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agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCUCCUUGCACCG**agauua
auagaucuAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAA-3′

Figure 10

ppLuc(GC) – ag – A64 – ag

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
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CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
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CGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGG
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CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
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GAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGA
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CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
GAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGA
CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
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agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAugcau**CCUGCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCUCCUUGCACCG**3′

Figure 11

ppLuc(GC) – ag – A64 – aCPSL

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
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GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
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CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
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CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
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GGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGG
CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
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CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCC
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CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
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CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
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agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAugcau*CAAUUCCUACACGUGAGGCGCUGUGAUUCCCUAUCCCCCUUCAUUCCCU*
*AUACAUUAGCACAGCGCCAUUGCAUGUAGGAAUU*-3′

Figure 12

ppLuc(GC) – ag – A64 – PolioCL

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
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GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
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CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
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CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
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CGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGG
GGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGG
CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGCC
GAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGA
CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
GAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGA
CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAugcau*CAAUUCUAAAACAGCUCUGGGGUUGUACCCACCCCAGAGGCCCACGUGG*
*CGGCUAGUACUCCGGUAUUGCGGUACCCUUGUACGCCUGUUUUAGAAUU*-3′

Figure 13

ppLuc(GC) – ag – A64 – G30

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
GAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUU
CGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGG
GGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGG
CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGCCC
GAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGA
CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
GAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGA
CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAugcau*GGGGGGGGGGGGGGGGGGGGGGGGGGGG*-3′

Figure 14

ppLuc(GC) – ag – A64 – U30

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
GAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUU
CGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGG
GGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGG
CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCC
GAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGA
CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
GAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGA
CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAugca*UUUUUUUUUUUUUUUUUUUUUUUUUUUUUU*-3′

Figure 15

ppLuc(GC) – ag – A64 – SL

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
GAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUU
CGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGG
GGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGG
CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCC
GAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGA
CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
GAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGA
CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAugcau*UAUGGCGGCCGUGUCCACCACGGAUAUCACCGUGGUGGACGCGGCC*-3′

Figure 16

ppLuc(GC) – ag – A64 – N32

gggagaaagcuugaggAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA
CCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCU
GGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGA
GUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAA
CCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGC
CCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCU
GAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAA
GAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAA
GACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGG
CUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAU
CAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGC
CUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACAC
CGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUA
CCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCG
GAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUU
CGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGG
GGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGG
CAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGA
CCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCC
GAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGA
CGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGU
CGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGA
GAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGA
CGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGA
GAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGG
CGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAU
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAgacuaguuaua
agacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauua
auAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAugcau*CCCCCUCUAGACAAUUGGAAUUCCAUA*-3′

Figure 17

NY-ESO-1(GC) – ag – A64 – C30

GGGAGAAAGCUUACCAUGCAGGCCGAGGGCCGCGGCACCGGCGGCUCGACCGGCGACGCC
GACGGGCCCGGCGGCCCGGGCAUCCCGGACGGCCCGGGCGGGAACGCGGGCGGCCCGGGC
GAGGCCGGCGCCACCGGCGGGCGGGGCCCGCGGGGCGCCGGCGCCGCCCGGGCGAGCGGC
CCCGGCGGGGGCGCCCCGCGGGGCCCGCACGGCGGCGCCGCCAGCGGCCUGAACGGGUGC
UGCCGGUGCGGCGCCCGCGGCCCGGAGAGCCGGCUCCUGGAGUUCUACCUGGCCAUGCCG
UUCGCGACCCCGAUGGAGGCCGAGCUGGCCCGGCGGAGCCUGGCCCAGGACGCCCCGCCG
CUGCCCGUGCCGGGCGUGCUCCUGAAGGAGUUCACGGUGAGCGGCAACAUCCUGACCAUC
CGGCUGACCGCCGCGGACCACCGGCAGCUGCAGCUGUCGAUCAGCAGCUGCCUCCAGCAG
CUGAGCCUGCUGAUGUGGAUCACCCAGUGCUUCCUGCCGGUGUUCCUGGCCCAGCCGCCC
AGCGGCCAGCGCCGGUGAccacuaguuauaagacugacua**GCCCGAUGGGCCUCCCAACG**
**GGCCCUCCUCCCCCUCCUUGCACCG**agauuaauAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUAUUCCCCCCCCCCCCCCCCCCCCC
CCCCCCCCCCucuagacaauuggaauu

Figure 18

NY-ESO-1(GC) – ag – A64 – C30 - histoneSL

GGGAGAAAGCUUACCAUGCAGGCCGAGGGCCGCGGCACCGGCGGCUCGACCGGCGACGCC
GACGGGCCCGGCGGCCCGGGCAUCCCGGACGGCCCGGGCGGGAACGCGGGCGGCCCGGGC
GAGGCCGGCGCCACCGGCGGGCGGGGCCCGCGGGGCGCCGGCGCCGCCCGGGCGAGCGGC
CCCGGCGGGGGCGCCCCGCGGGGCCCGCACGGCGGCGCCGCCAGCGGCCUGAACGGGUGC
UGCCGGUGCGGCGCCCGCGGCCCGGAGAGCCGGCUCCUGGAGUUCUACCUGGCCAUGCCG
UUCGCGACCCCGAUGGAGGCCGAGCUGGCCCGGCGGAGCCUGGCCCAGGACGCCCCGCCG
CUGCCCGUGCCGGGCGUGCUCCUGAAGGAGUUCACGGUGAGCGGCAACAUCCUGACCAUC
CGGCUGACCGCCGCGGACCACCGGCAGCUGCAGCUGUCGAUCAGCAGCUGCCUCCAGCAG
CUGAGCCUGCUGAUGUGGAUCACCCAGUGCUUCCUGCCGGUGUUCCUGGCCCAGCCGCCC
AGCGGCCAGCGCCGGUGAccacuaguuauaagacugacua**GCCCGAUGGGCCUCCCAACG**
**GGCCCUCCUCCCCCUCCUUGCACCG**agauuaauAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCCCCCCCC
CCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAggaauu

Figure 19

Survivin(GC) – ag – A64 – C30 - histoneSL

GGGAGAAAGCUUACCAUGGGCGCCCCCACCCUGCCGCCGGCCUGGCAGCCGUUCCUCAAG
GACCACCGCAUCUCGACCUUCAAGAACUGGCCGUUCCUGGAGGGCUGCGCGUGCACCCCG
GAGCGGAUGGCCGAGGCCGGCUUCAUCCACUGCCCCACCGAGAACGAGCCGGACCUGGCC
CAGUGCUUCUUCUGCUUCAAGGAGCUGGAGGGCUGGGAGCCGGACGACGACCCGAUCGAG
GAGCACAAGAAGCACAGCAGCGGCUGCGCCUUCCUGAGCGUGAAGAAGCAGUUCGAGGAG
CUGACGCUCGGGGAGUUCCUGAAGCUGGACCGGGAGCGGGCCAAGAACAAGAUCGCGAAG
GAGACCAACAACAAGAAGAAGGAGUUCGAGGAGACCGCCAAGAAGGUGCGGCGGGCCAUC
GAGCAGCUGGCCGCCAUGGACUGAccacuaguuauaagacugacua**GCCCGAUGGGCCUC**
**CCAACGGGCCCUCCUCCCCCUCCUUGCACCG**agauuaauAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAugcauCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAUU-3′

Figure 20

MAGE-C1(GC) – ag – A64 – C30 - histoneSL

GGGAGAAAGCUUACCAUGCAGUCCCCGCUGCAGGGCGAGGAGUUCCAGAGCUCCCUGCAG
AGCCCCGUGUCCAUCUGCAGCUCCAGCACCCCCUCCAGCCUCCCGCAGAGCUUCCCCGAG
UCCAGCCAGUCCCCCCCCGAGGGCCCGGUCCAGAGCCCCCUGCACUCCCCGCAGAGCCCC
CCGGAGGGGAUGCACUCCCAGAGCCCCCUGCAGUCCCCCGAGAGCGCCCCCGAGGGCGAG
GACUCCCUCAGCCCGCUGCAGAUCCCCCAGUCCCCGCUGGAGGGGGAGGACAGCCUCUCC
AGCCUGCACUUCCCCCAGUCCCCGCCCGAGUGGGAGGACAGCCUGAGCCCCCUCCACUUC
CCCCAGUUCCCGCCCCAGGGCGAGGACUUCCAGUCCAGCCUGCAGUCCCCCGUGAGCAUC
UGCUCCAGCUCCACGAGCCUGUCCCUCCCCCAGAGCUUCCCGGAGUCCCCCCAGAGCCCG
CCCGAGGGGCCGGCGCAGUCCCCCCUGCAGCGCCCCGUGAGCUCCUUCUUCAGCUACACC
CUGGCCUCCCUCCUGCAGAGCUCCCACGAGAGCCCGCAGAGCCCGCCCGAGGGCCCCGCC
CAGUCCCCGCUGCAGAGCCCCGUCUCCAGCUUCCCCUCCAGCACCUCCAGCUCCCUCAGC
CAGUCCAGCCCCGUGUCCAGCUUCCCGUCCAGCACCUCCAGCUCCCUGAGCAAGAGCUCC
CCCGAGAGCCCCCUGCAGUCCCCCGUGAUCAGCUUCUCCAGCUCCACGAGCCUCUCCCCG
UUCAGCGAGGAGUCCAGCUCCCCCGUCGACGAGUACACCAGCUCCAGCGACACCCUGCUG
GAGUCCGACAGCCUCACCGACUCCGAGAGCCUGAUCGAGAGCGAGCCCCUGUUCACCUAC
ACGCUCGACGAGAAGGUGGACGAGCUGGCCCGGUUCCUGCUCCUGAAGUACCAGGUGAAG
CAGCCCAUCACCAAGGCCGAGAUGCUGACCAACGUCAUCUCCCGCUACACCGGCUACUUC
CCGGUGAUCUUCCGGAAGGCGCGCGAGUUCAUCGAGAUCCUCUUCGGGAUCAGCCUGCGG
GAGGUGGACCCCGACGACUCCUACGUCUUCGUGAACACGCUGGACCUCACCAGCGAGGGC
UGCCUGUCCGACGAGCAGGGGAUGAGCCAGAACCGCCUGCUCAUCCUGAUCCUGUCCAUC
AUCUUCAUCAAGGGCACCUACGCCAGCGAGGAGGUCAUCUGGGACGUGCUCUCCGGGAUC
GGCGUGCGGGCCGGCCGCGAGCACUUCGCCUUCGGGGAGCCCCGGGAGCUGCUGACCAAG
GUCUGGGUGCAGGAGCACUACCUCGAGUACCGCGAGGUGCCCAACAGCUCCCCGCCCCGG
UACGAGUUCCUGUGGGGCCCCCGCGCCCACAGCGAGGUCAUCAAGCGGAAGGUGGUGGAG
UUCCUGGCGAUGCUCAAGAACACGGUCCCCAUCACCUUCCCGUCCAGCUACAAGGACGCC
CUGAAGGACGUGGAGGAGCGGGCCCAGGCCAUCAUCGACACCACCGACGACUCCACGGCC
ACCGAGAGCGCGUCCAGCUCCGUGAUGAGCCCCAGCUUCUCCAGCGAGUGAccacuaguu
auaagacugacua**GCCCGAUGGGCCUCCCAACGGGCCCUCCUCCCCCUCCUUGCACCG**aga
uuaauAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAugcauCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAG
AGCCACCAGAAUU-3′

Figure 21

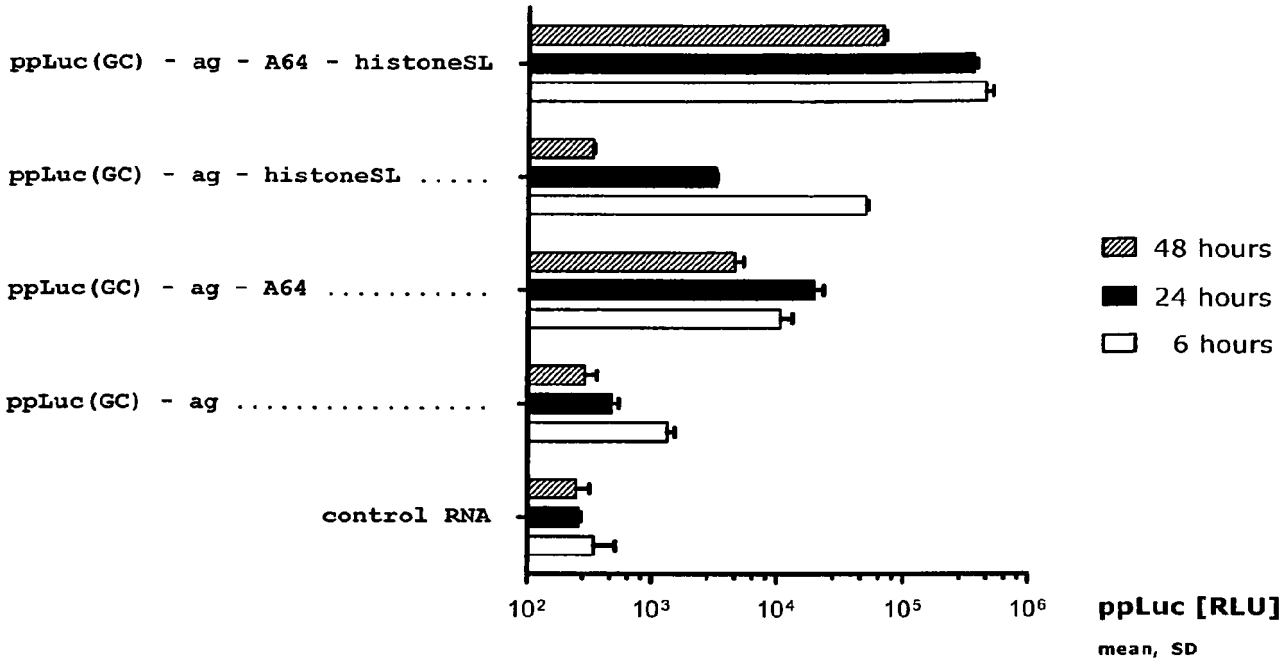

ppLuc(GC) - ag - A64 - histoneSL
ppLuc(GC) - ag - histoneSL .....
ppLuc(GC) - ag - A64 .....
ppLuc(GC) - ag .....
control RNA
48 hours
24 hours
6 hours
10²
10³
10⁴
10⁵
10⁶
ppLuc [RLU]
mean, SD

Figure 22

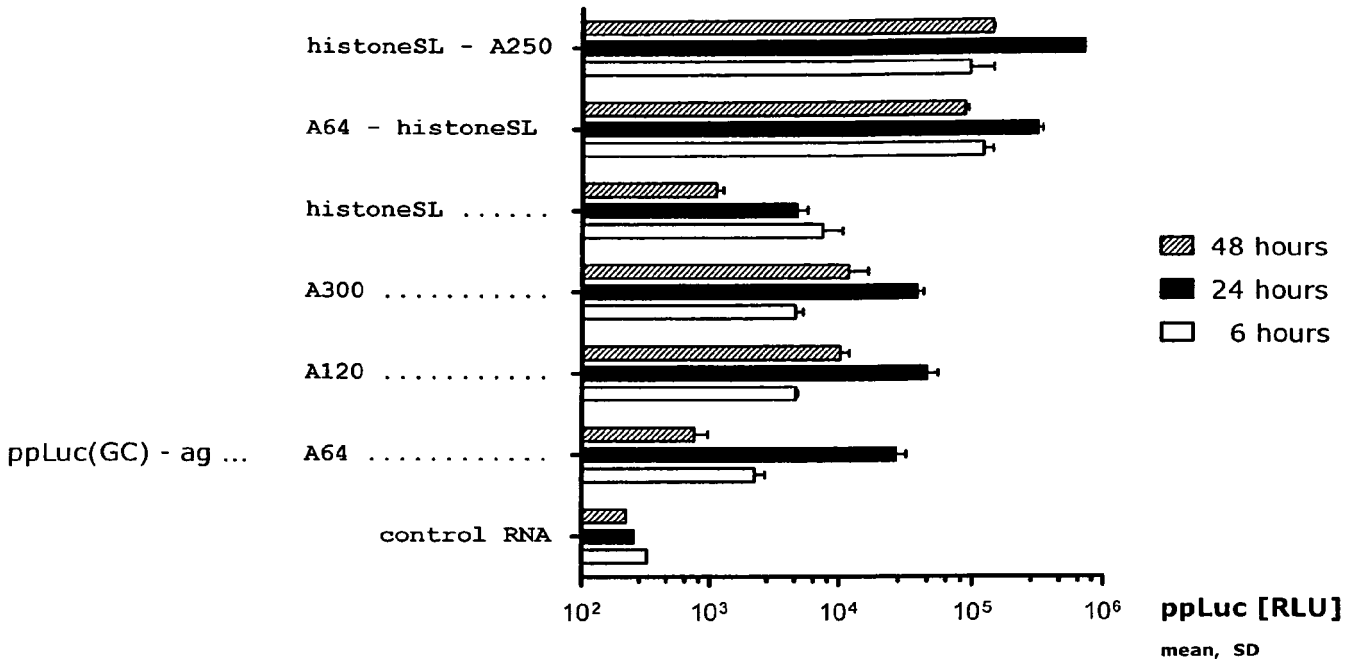

histoneSL - A250
A64 - histoneSL
histoneSL .....
A300 .....
A120 .....
ppLuc(GC) - ag ...
A64 .....
control RNA
48 hours
24 hours
6 hours
10²
10³
10⁴
10⁵
10⁶
ppLuc [RLU]
mean, SD

Figure 23

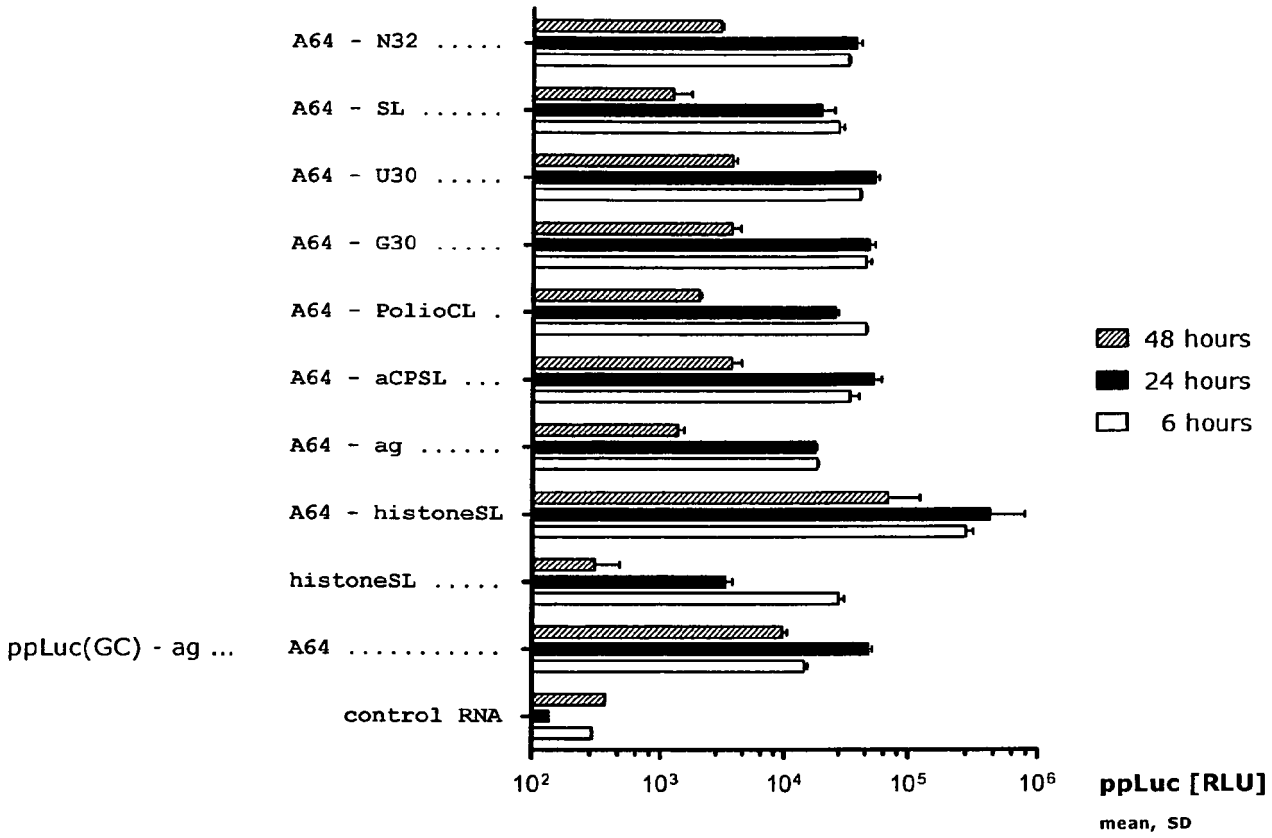

A64 - N32 .....
A64 - SL .....
A64 - U30 .....
A64 - G30 .....
A64 - PolioCL .
A64 - aCPSL ...
A64 - ag .....
A64 - histoneSL
histoneSL .....
ppLuc(GC) - ag ...
A64 .....
control RNA
48 hours
24 hours
6 hours
10²
10³
10⁴
10⁵
10⁶
ppLuc [RLU]
mean, SD

Figure 24

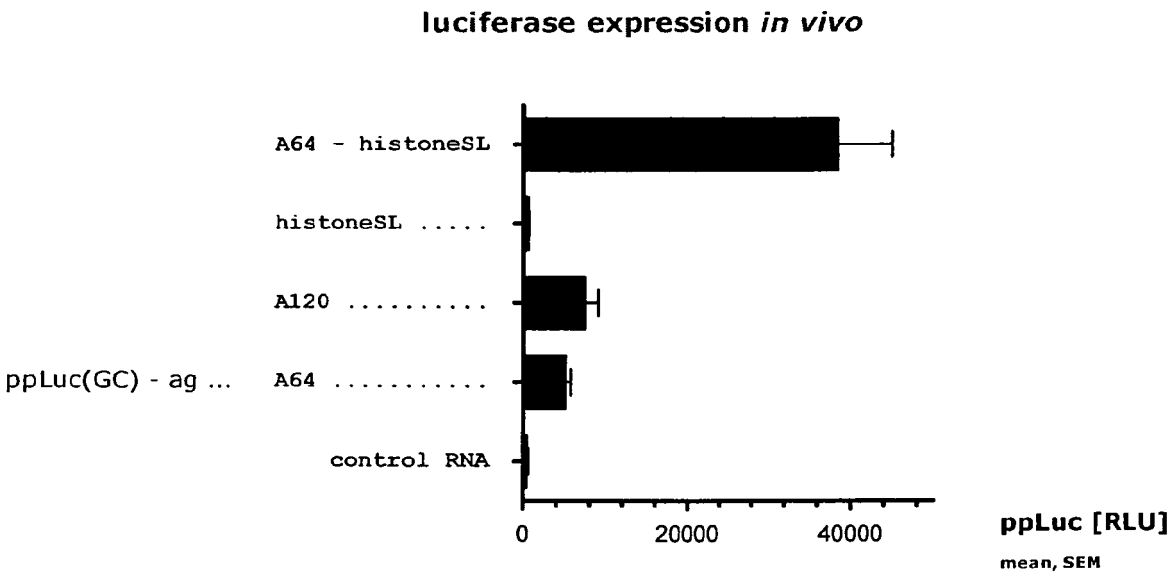

luciferase expression in vivo
A64 - histoneSL
histoneSL .....
A120 .....
ppLuc(GC) - ag ... A64 .....
control RNA
0
20000
40000
ppLuc [RLU]
mean, SEM

Figure 25

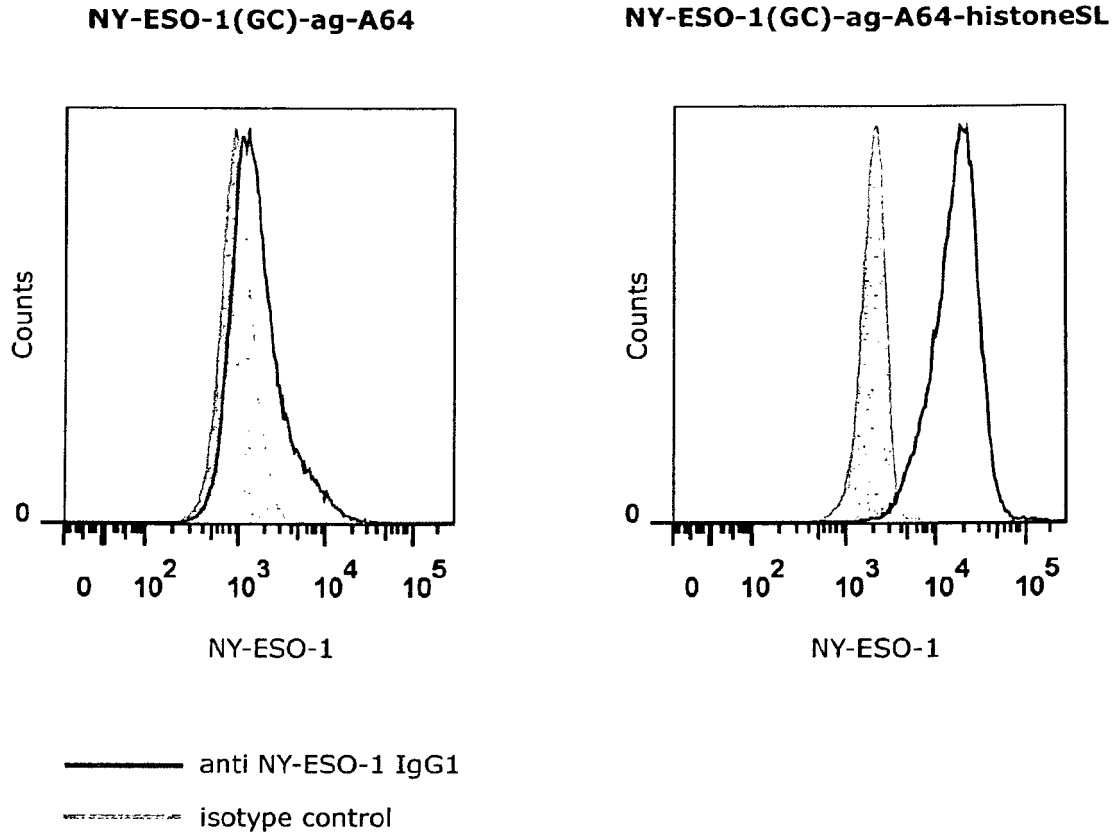

NY-ESO-1(GC)-ag-A64
NY-ESO-1(GC)-ag-A64-histoneSL
Counts
0
0 10^2 10^3 10^4 10^5
NY-ESO-1
anti NY-ESO-1 IgG1
isotype control

Figure 26

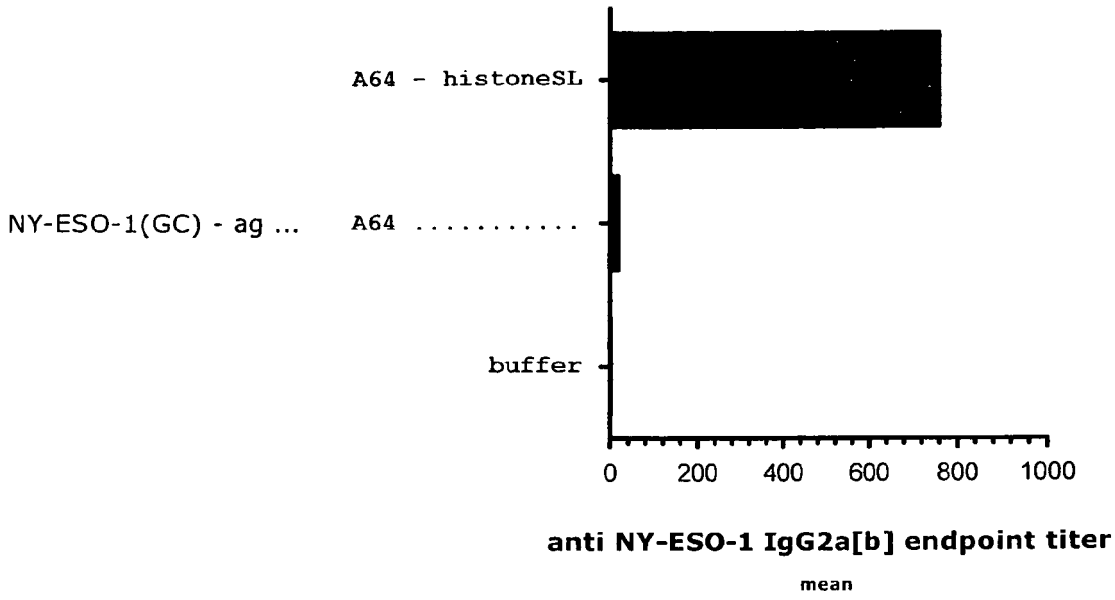

A64 - histoneSL
NY-ESO-1(GC) - ag ...
A64 .....
buffer
0
200
400
600
800
1000
anti NY-ESO-1 IgG2a[b] endpoint titer
mean

Figure 27