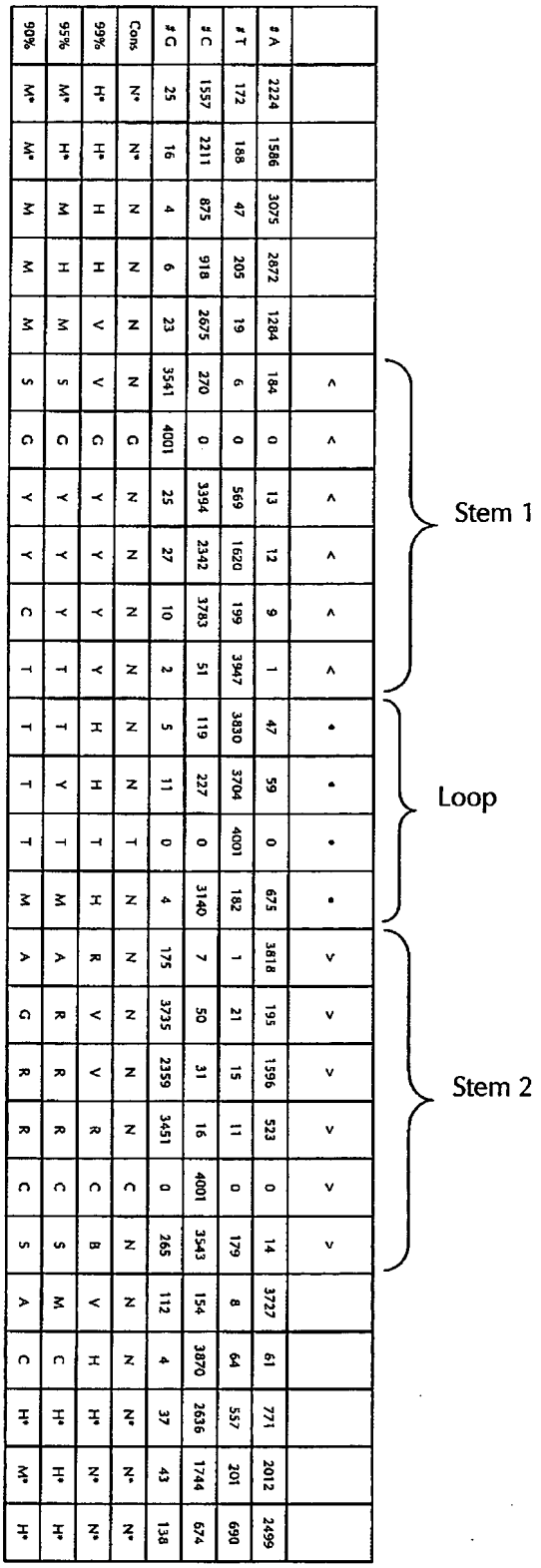


Figure 1

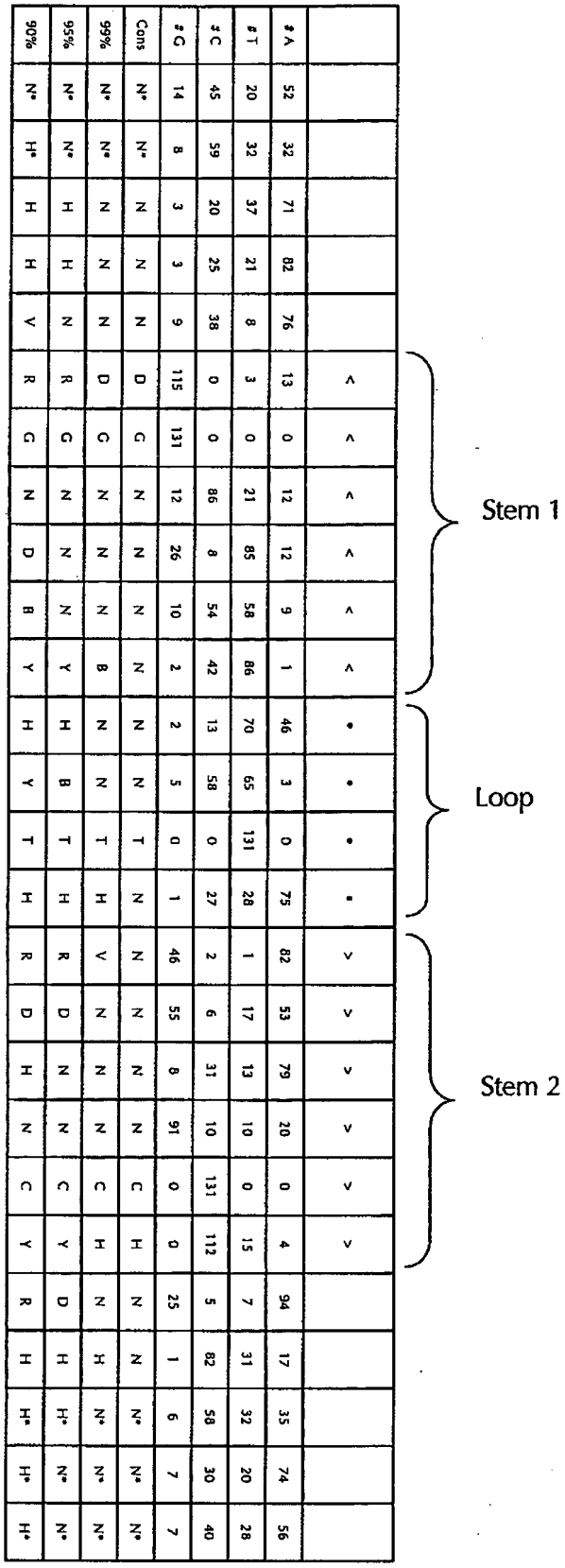


Figure 2

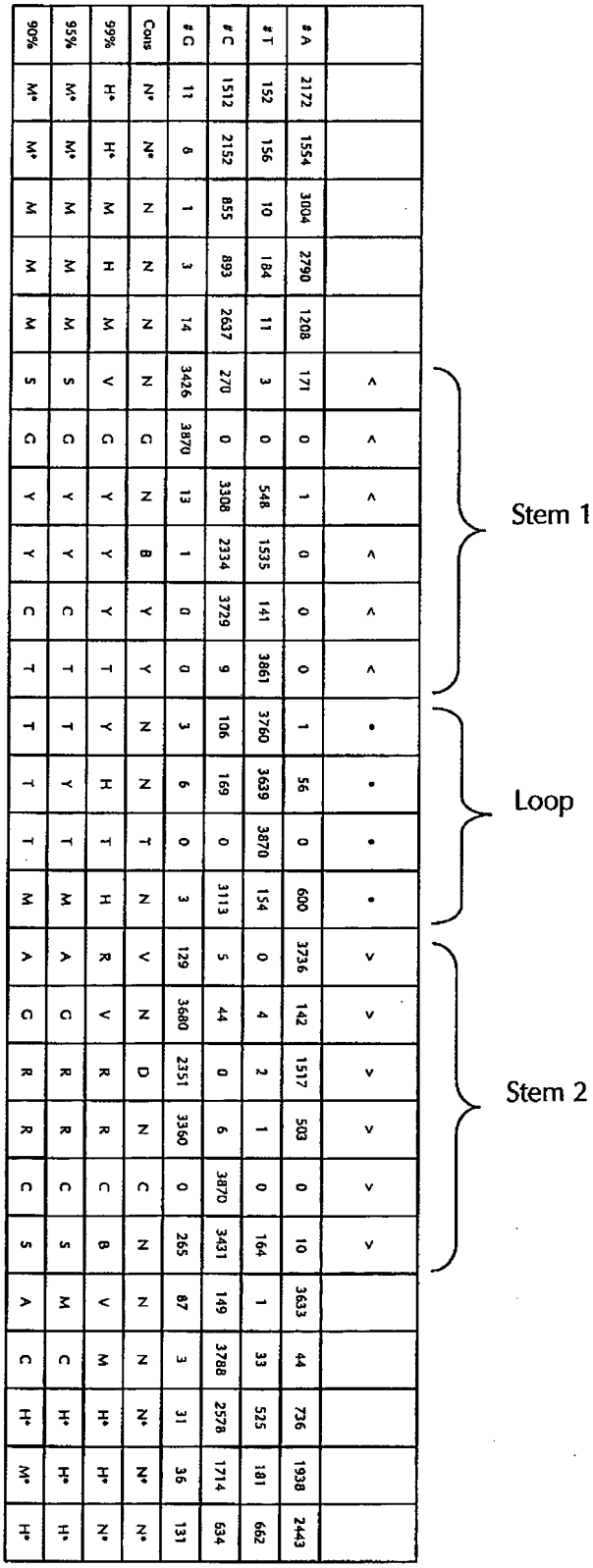


Figure 3

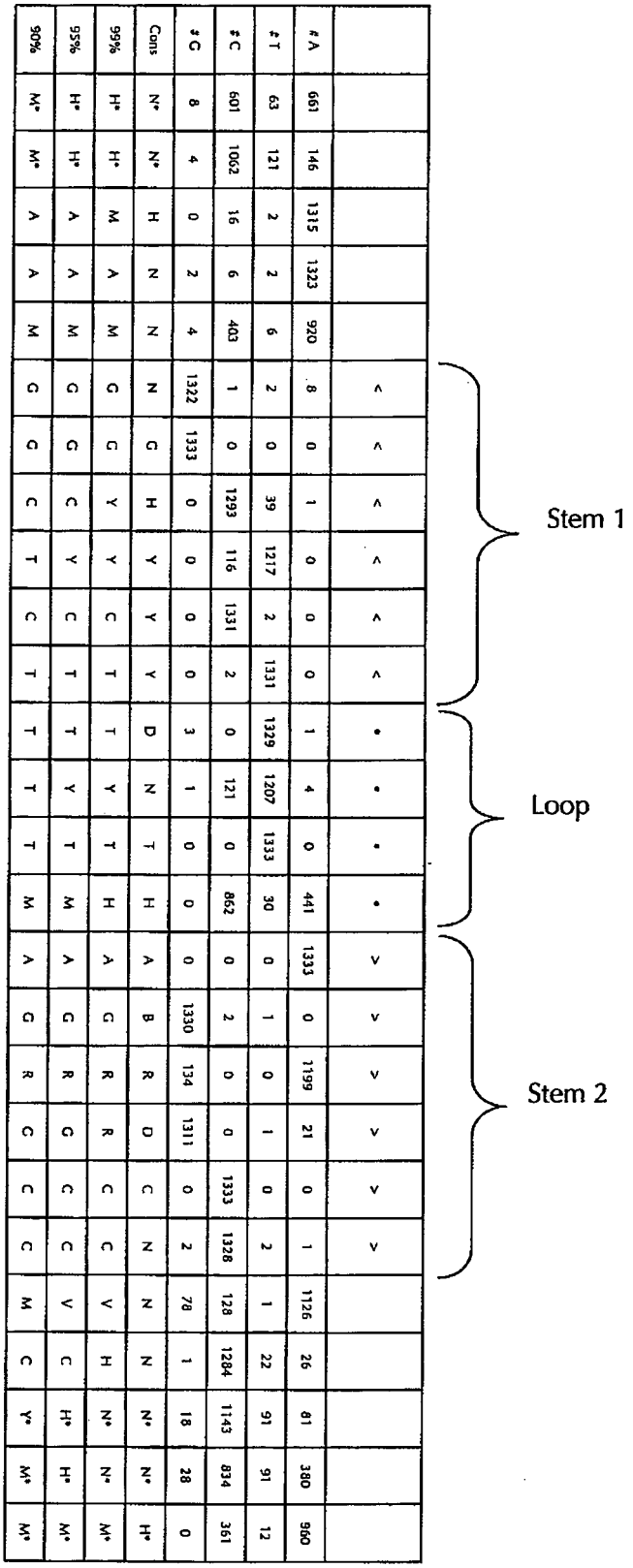


Figure 4

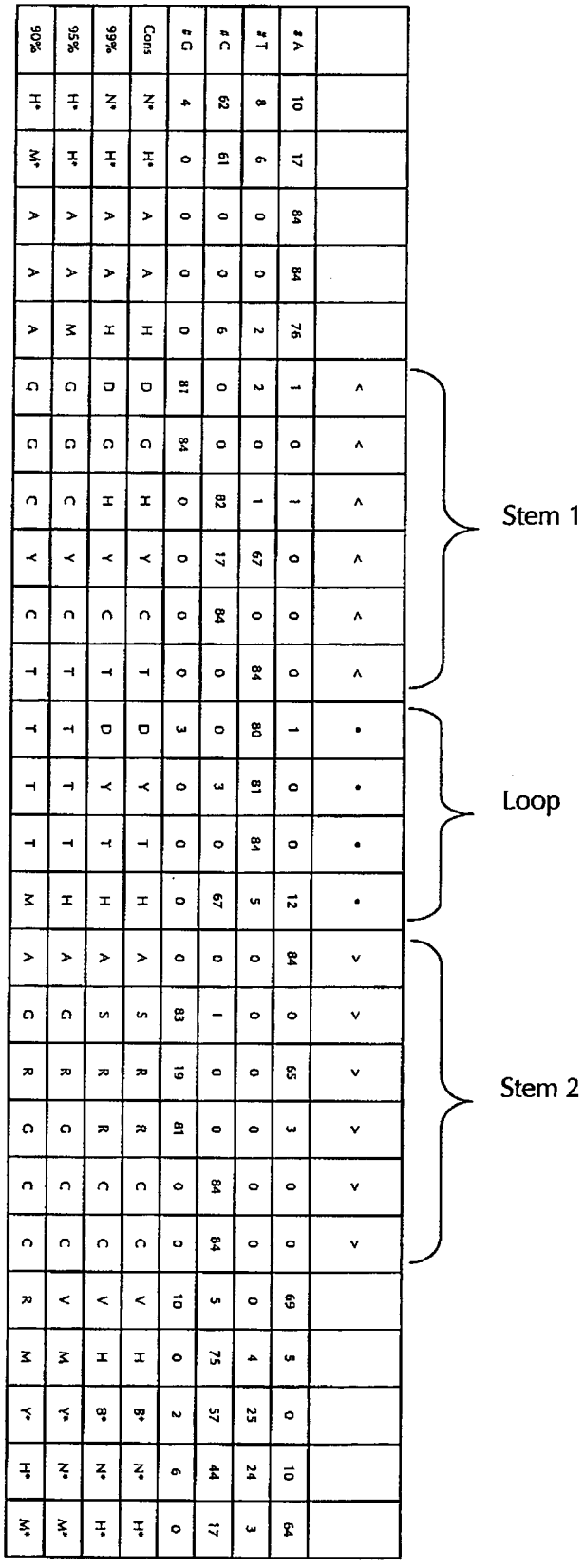


Figure 5

nucleotide sequence of PpLuc(GC) – ag – A64

GGGAGAAAGCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTA
CCCGCTGGAGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCT
GGTGCCGGGCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGA
GTACTTCGAGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAA
CCACCGGATCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGC
CCTCTTCATCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCT
GAACAGCATGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAA
GATCCTGAACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAA
GACCGACTACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGG
CTTCAACGAGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGAT
CATGAACAGCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGC
CTGCGTGCGCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACAC
CGCCATCCTGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTA
CCTCATCTGCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCG
GAGCCTGCAGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTT
CGCCAAGAGCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGG
GGGCGCCCCGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGG
CATCCGCCAGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGA
CCTGGACACCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCC
GATGATCATGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGA
CGGCTGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGT
CGACCGGCTGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGA
GAGCATCCTGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGA
CGACGCCGGCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGA
GAAGGAGATCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGG
CGTGGTGTTCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGAT
CCGCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATA
AGACTGACTAGCCCGATGGGCCTCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTA
ATAGATCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAA

Figure 6

nucleotide sequence of RPL32 – PpLuc(GC) – ag – A64 – C30 – histoneSL

GGGGCGCTGCCTACGGAGGTGGCAGCCATCTCCTTCTCGGCATCAAGCTTGAGGATGGAG
GACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCC
GGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTC
ACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGC
CTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCG
GAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTC
GCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAG
CCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAG
CTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAG
TCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTC
CCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACC
GGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCC
CGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCG
TTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTG
GTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATC
CAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGAC
AAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAG
GTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTG
ACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTG
GGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTG
GGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTG
AACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGAC
ATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATC
AAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCC
AACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCC
GCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTG
GCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTC
CCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCC
AAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCC
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CCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCCACCAGAATT

Figure 7

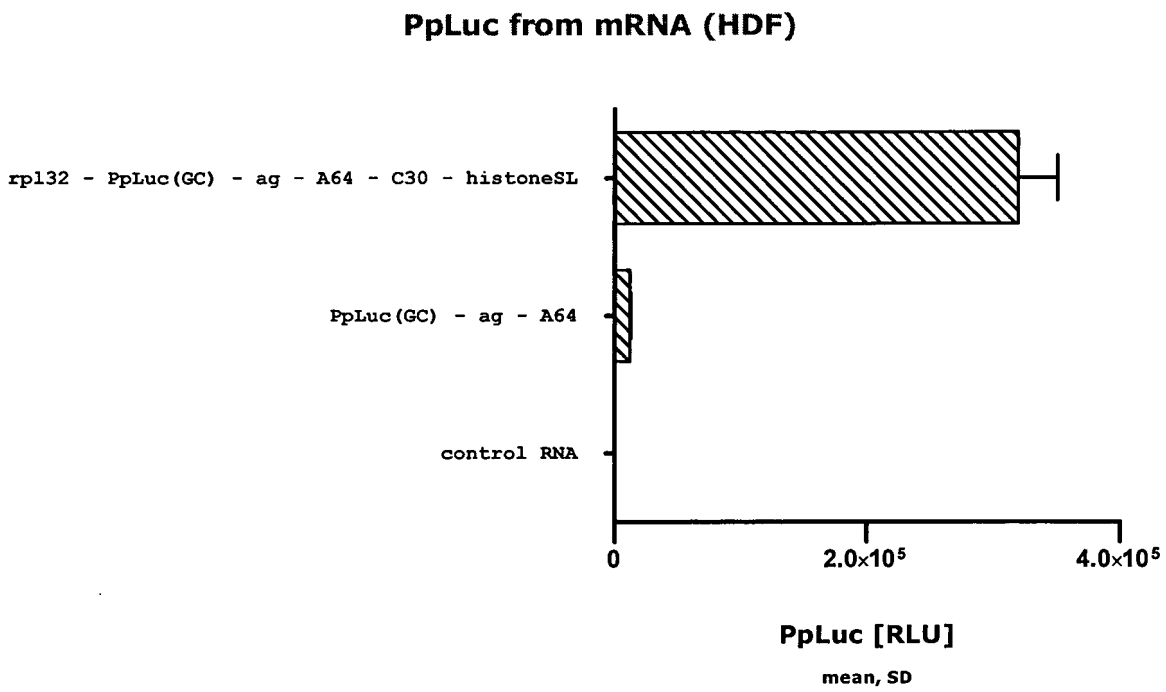

PpLuc from mRNA (HDF)
rpl32 - PpLuc(GC) - ag - A64 - C30 - histoneSL
PpLuc(GC) - ag - A64
control RNA
0
2.0x10^5
4.0x10^5
PpLuc [RLU]
mean, SD

Figure 8

nucleotide sequence of PpLuc(GC) – ag – A64 – histoneSL

GGGAGAAAGCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTA
CCCGCTGGAGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCT
GGTGCCGGGCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGA
GTACTTCGAGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAA
CCACCGGATCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGC
CCTCTTCATCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCT
GAACAGCATGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAA
GATCCTGAACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAA
GACCGACTACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGG
CTTCAACGAGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGAT
CATGAACAGCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGC
CTGCGTGCGCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACAC
CGCCATCCTGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTA
CCTCATCTGCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCG
GAGCCTGCAGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTT
CGCCAAGAGCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGG
GGGCGCCCCGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGG
CATCCGCCAGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGG
GGACGACAAGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGA
CCTGGACACCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCC
GATGATCATGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGA
CGGCTGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGT
CGACCGGCTGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGA
GAGCATCCTGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGA
CGACGCCGGCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGA
GAAGGAGATCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGG
CGTGGTGTTCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGAT
CCGCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATA
AGACTGACTAGCCCGATGGGCCTCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTA
ATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAATGCATCAAAGGCTCTTTTCAGAGCCACCA

Figure 9

nucleotide sequence of RPL32 – PpLuc(GC) – ag – A64

GGGGCGCTGCCTACGGAGGTGGCAGCCATCTCCTTCTCGGCATCAAGCTTGAGGATGGAG
GACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCC
GGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTC
ACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGC
CTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCG
GAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTC
GCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAG
CCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAG
CTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAG
TCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTC
CCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACC
GGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCC
CGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCG
TTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTG
GTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATC
CAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGAC
AAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAG
GTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTG
ACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTG
GGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTG
GGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTG
AACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGAC
ATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATC
AAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCC
AACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCC
GCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTG
GCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTC
CCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCC
AAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCC
TCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTAATAGATCTAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Figure 10

nucleotide sequence of RPL32 – PpLuc(GC) – ag – A64 – histoneSL

GGGGCGCTGCCTACGGAGGTGGCAGCCATCTCCTTCTCGGCATCAAGCTTGAGGATGGAG
GACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCC
GGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTC
ACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGC
CTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCG
GAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTC
GCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAG
CCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAG
CTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAG
TCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTC
CCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACC
GGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCC
CGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCG
TTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTG
GTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATC
CAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGAC
AAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAG
GTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTG
ACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTG
GGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTG
GGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTG
AACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGAC
ATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATC
AAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCC
AACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCC
GCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTG
GCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTC
CCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCC
AAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCC
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TTCAGAGCCACCA

Figure 11

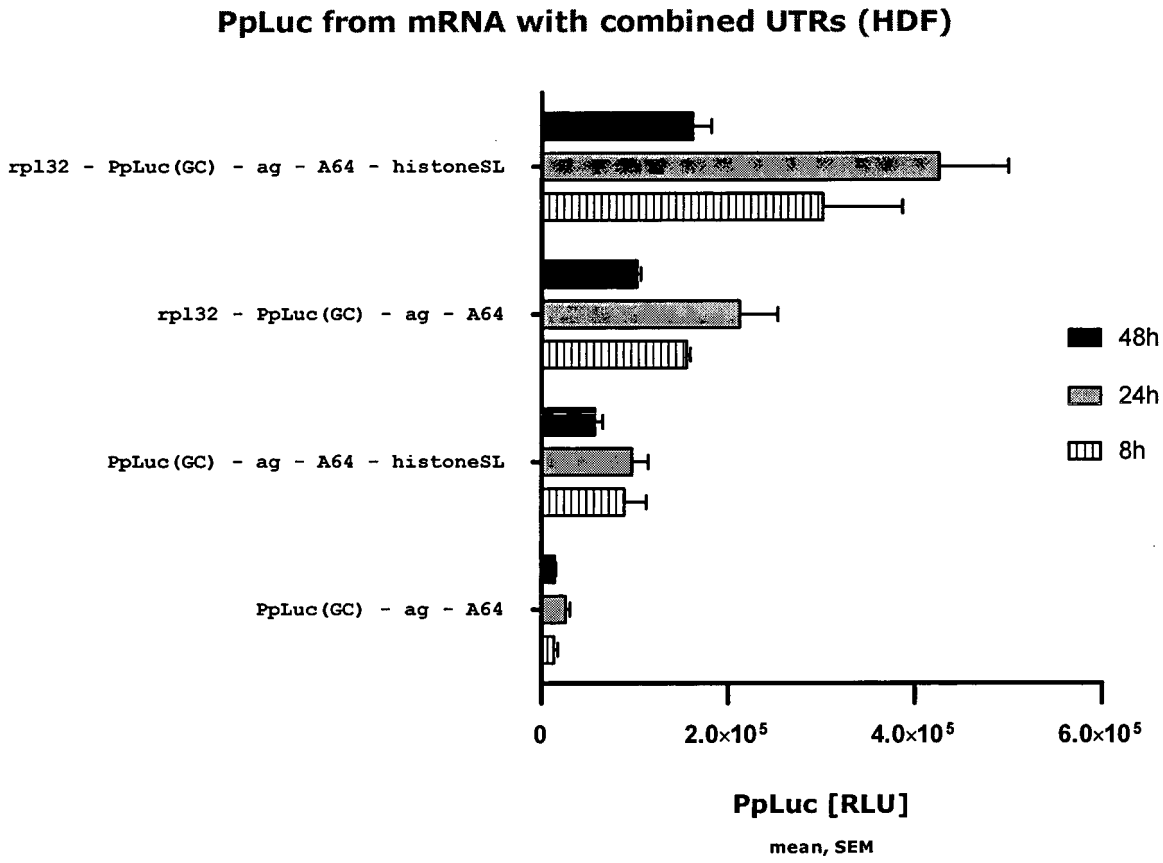

PpLuc from mRNA with combined UTRs (HDF)
rpl32 - PpLuc(GC) - ag - A64 - histoneSL
rpl32 - PpLuc(GC) - ag - A64
PpLuc(GC) - ag - A64 - histoneSL
PpLuc(GC) - ag - A64
48h
24h
8h
0
2.0x10^5
4.0x10^5
6.0x10^5
PpLuc [RLU]
mean, SEM

Figure 12

nucleotide sequence of RPL32 – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGGCGCTGCCTACGGAGGTGGCAGCCATCTCCTTCTCGGCATCAAGCTTGAGGATGGAG
GACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCC
GGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTC
ACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGC
CTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCG
GAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTC
GCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAG
CCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAG
CTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAG
TCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTC
CCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACC
GGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCC
CGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCG
TTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTG
GTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATC
CAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGAC
AAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAG
GTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTG
ACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTG
GGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTG
GGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTG
AACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGAC
ATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATC
AAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCC
AACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCC
GCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTG
GCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTC
CCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCC
AAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTGCATCACATTTAAAAGCATCTCAGCC
TACCATGAGAATAAGAGAAAGAAAATGAAGATCAATAGCTTATTCATCTCTTTTTCTTTT
TCGTTGGTGTAAAGCCAACACCCTGTCTAAAAAACATAAATTTCTTTAATCATTTTGCCT
CTTTTCTCTGTGCTTCAATTAATAAAAAATGGAAAGAACCTAGATCTAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCCCC
CCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCCACCAGAATT

Figure 13

nucleotide sequence of RPL35 – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGGAGCGGGCGGCGGCGTTGGCGGCTTGTGCAGCAAAGCTTGAGGATGGAGGACGCCAA
GAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCA
GCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGC
CCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGA
GGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAG
CCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGC
GAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGT
GGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCAT
CATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTA
CACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAG
CTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCC
GAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCC
CATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCA
CGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGAT
GTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGC
GCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGA
CCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGA
GGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGAC
CACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGT
GGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAA
CCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCC
GGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTA
CTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAA
GGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTT
CGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGT
GGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCA
GGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGG
CCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGG
CGGCAAGATCGCCGTGTAAGACTAGTGCATCACATTTAAAAGCATCTCAGCCTACCATGA
GAATAAGAGAAAGAAAATGAAGATCAATAGCTTATTCATCTCTTTTTCTTTTTCGTTGGT
GTAAAGCCAACACCCTGTCTAAAAAACATAAATTTCTTTAATCATTTTGCCTCTTTTCTC
TGTGCTTCAATTAATAAAAAATGGAAAGAACCTAGATCTAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCCACCAGAATT

Figure 14

nucleotide sequence of RPL21 – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGGCCGGAACCGCCATCTTCCAGTAATTCGCCAAAAAGCTTGAGGATGGAGGACGCCAA
GAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCA
GCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGC
CCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGA
GGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAG
CCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGC
GAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGT
GGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCAT
CATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTA
CACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAG
CTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCC
GAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCC
CATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCA
CGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGAT
GTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGC
GCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGA
CCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGA
GGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGAC
CACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGT
GGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAA
CCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCC
GGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTA
CTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAA
GGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTT
CGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGT
GGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCA
GGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGG
CCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGG
CGGCAAGATCGCCGTGTAAGACTAGTGCATCACATTTAAAAGCATCTCAGCCTACCATGA
GAATAAGAGAAAGAAAATGAAGATCAATAGCTTATTCATCTCTTTTTCTTTTTCGTTGGT
GTAAAGCCAACACCCTGTCTAAAAAACATAAATTTCTTTAATCATTTTGCCTCTTTTCTC
TGTGCTTCAATTAATAAAAAATGGAAAGAACCTAGATCTAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCCACCAGAATT

Figure 15

nucleotide sequence of atp5a1 – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGCGGCTCGGCCATTTTGTCCCAGTCAGTCCGGAGGCTGCGGCTGCAGAAGTACCGCCT
GCGGAGTAACTGCAAAGAAGCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCG
GCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAG
CGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATC
ACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGC
CTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCG
GTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAG
CGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAG
GGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATC
ATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCAC
CTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACC
ATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCG
CACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATC
ATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACG
ACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAG
CTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTG
TTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAG
ATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTC
CACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATC
ACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCC
AAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGC
GTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTC
ATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCAC
TTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCG
GCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGG
CTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAG
ACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAG
CTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGAC
GCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAA
GACTAGTGCATCACATTTAAAAGCATCTCAGCCTACCATGAGAATAAGAGAAAGAAAATG
AAGATCAATAGCTTATTCATCTCTTTTTCTTTTTCGTTGGTGTAAAGCCAACACCCTGTC
TAAAAAACATAAATTTCTTTAATCATTTTGCCTCTTTTCTCTGTGCTTCAATTAATAAAA
AATGGAAAGAACCTAGATCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAATGCATCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
AAAGGCTCTTTTCAGAGCCACCAGAATT

Figure 16

nucleotide sequence of HSD17B4 – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGTCCCGCAGTCGGCGTCCAGCGGCTCTGCTTGTTCGTGTGTGTGTCGTTGCAGGCCTT
ATTCAAGCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACC
CGCTGGAGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGG
TGCCGGGCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGT
ACTTCGAGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACC
ACCGGATCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCC
TCTTCATCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGA
ACAGCATGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGA
TCCTGAACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGA
CCGACTACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCT
TCAACGAGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCA
TGAACAGCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCT
GCGTGCGCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCG
CCATCCTGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACC
TCATCTGCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGA
GCCTGCAGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCG
CCAAGAGCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGG
GCGCCCCGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCA
TCCGCCAGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGG
ACGACAAGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACC
TGGACACCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGA
TGATCATGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACG
GCTGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCG
ACCGGCTGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGA
GCATCCTGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACG
ACGCCGGCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGA
AGGAGATCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCG
TGGTGTTCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCC
GCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTGCATCA
CATTTAAAAGCATCTCAGCCTACCATGAGAATAAGAGAAAGAAAATGAAGATCAATAGCT
TATTCATCTCTTTTTCTTTTTCGTTGGTGTAAAGCCAACACCCTGTCTAAAAAACATAAA
TTTCTTTAATCATTTTGCCTCTTTTCTCTGTGCTTCAATTAATAAAAAATGGAAAGAACC
TAGATCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAATGCATCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTC
AGAGCCACCAGAATT

Figure 17

nucleotide sequence of AIG1 – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGCCGCCCAGCCGGTCCAGGCCTCTGGCGAACAAGCTTGAGGATGGAGGACGCCAAGAA
CATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCAGCT
CCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGCCCA
CATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGAGGC
CATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAGCCT
GCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGCGAA
CGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGTGGT
GTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCATCAT
CCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTACAC
GTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAGCTT
CGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCCGAA
GGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCCCAT
CTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCACGG
CTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGATGTA
CCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGCGCT
GCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGACCT
GTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGAGGC
CGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGACCAC
GAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGTGGT
CCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAACCA
GCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCCGGA
GGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTACTG
GGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAAGGG
CTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTTCGA
CGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGTGGT
GCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCAGGT
GACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGGCCT
GACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGGCGG
CAAGATCGCCGTGTAAGACTAGTGCATCACATTTAAAAGCATCTCAGCCTACCATGAGAA
TAAGAGAAAGAAAATGAAGATCAATAGCTTATTCATCTCTTTTTCTTTTTCGTTGGTGTA
AAGCCAACACCCTGTCTAAAAAACATAAATTTCTTTAATCATTTTGCCTCTTTTCTCTGT
GCTTCAATTAATAAAAAATGGAAAGAACCTAGATCTAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCCACCAGAATT

Figure 18

nucleotide sequence of COX6C – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGAGTCAGGAAGGACGTTGGTGTTGAGGTTAGCATACGTATCAAGGACAGTAACTACCAA
GCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGG
AGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGG
GCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCG
AGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGA
TCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCA
TCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCA
TGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGA
ACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACT
ACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACG
AGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACA
GCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGC
GCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCC
TGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCT
GCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGC
AGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGA
GCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCC
CGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCC
AGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACA
AGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACA
CCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCA
TGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGC
TGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGC
TGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCC
TGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCG
GCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGA
TCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGT
TCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGA
TCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTGCATCACATTTA
AAAGCATCTCAGCCTACCATGAGAATAAGAGAAAGAAAATGAAGATCAATAGCTTATTCA
TCTCTTTTTCTTTTTCGTTGGTGTAAAGCCAACACCCTGTCTAAAAAACATAAATTTCTT
TAATCATTTTGCCTCTTTTCTCTGTGCTTCAATTAATAAAAAATGGAAAGAACCTAGATC
TAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAATGCATCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCC
ACCAGAATT

Figure 19

nucleotide sequence of ASAH1 – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGCCTCTGCTGGAGTCCGGGGAGTGGCGTTGGCTGCTAGAGCGAAGCTTGAGGATGGAG
GACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCC
GGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTC
ACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGC
CTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCG
GAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTC
GCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAG
CCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAG
CTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAG
TCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTC
CCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACC
GGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCC
CGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCG
TTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTG
GTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATC
CAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGAC
AAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAG
GTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTG
ACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTG
GGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTG
GGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTG
AACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGAC
ATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATC
AAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCC
AACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCC
GCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTG
GCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTC
CCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCC
AAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTGCATCACATTTAAAAGCATCTCAGCC
TACCATGAGAATAAGAGAAAGAAAATGAAGATCAATAGCTTATTCATCTCTTTTTCTTTT
TCGTTGGTGTAAAGCCAACACCCTGTCTAAAAAACATAAATTTCTTTAATCATTTTGCCT
CTTTTCTCTGTGCTTCAATTAATAAAAAATGGAAAGAACCTAGATCTAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCCCC
CCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCCACCAGAATT

Figure 20

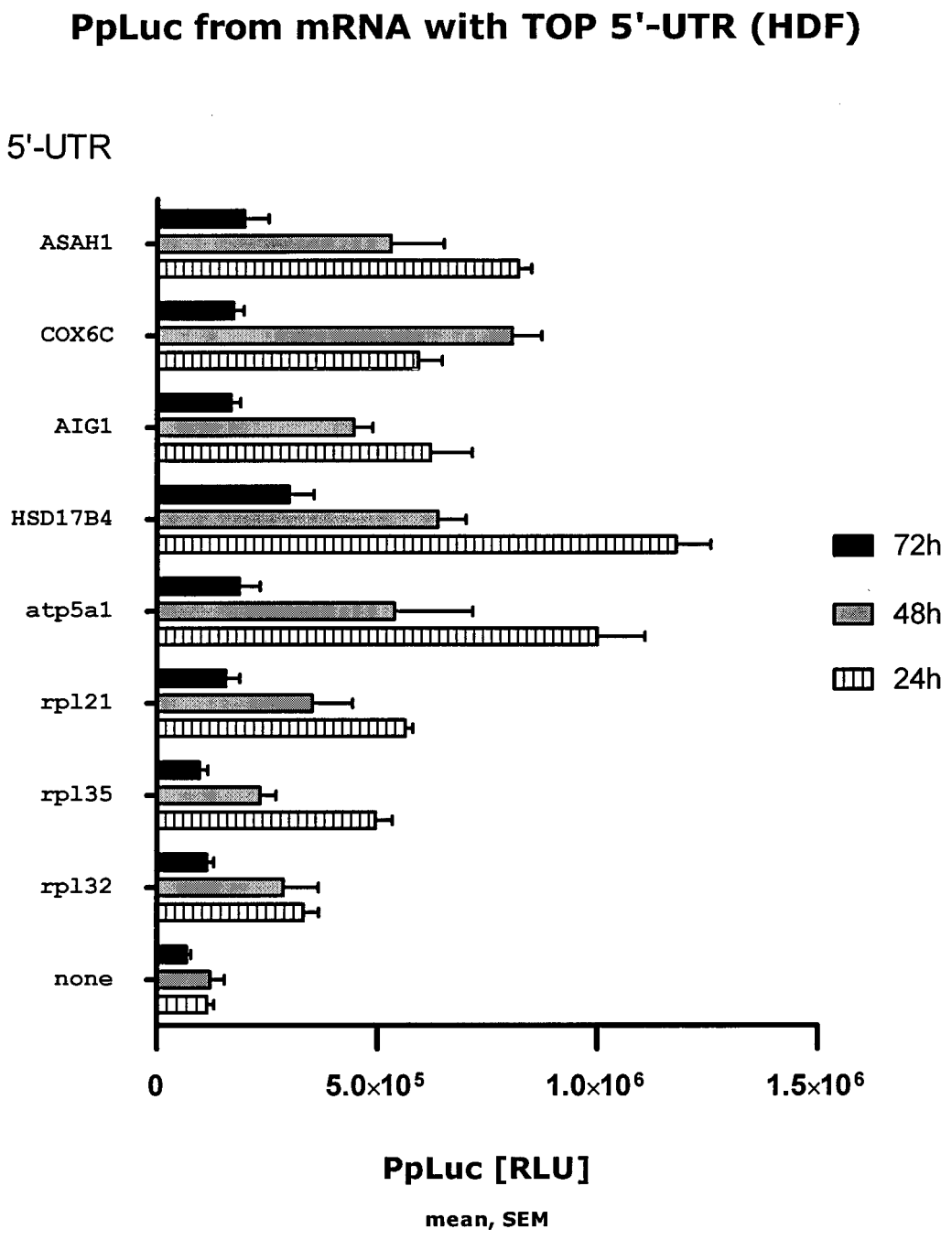

PpLuc from mRNA with TOP 5'-UTR (HDF)
5'-UTR
ASAH1
COX6C
AIG1
HSD17B4
atp5a1
rpl21
rpl35
rpl32
none
72h
48h
24h
0
5.0x10^5
1.0x10^6
1.5x10^6
PpLuc [RLU]
mean, SEM

Figure 21

nucleotide sequence of RPL35 – PpLuc(GC) – ag – A64

GGGGAGCGGGCGGCGGCGTTGGCGGCTTGTGCAGCAAAGCTTGAGGATGGAGGACGCCAA
GAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCA
GCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGC
CCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGA
GGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAG
CCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGC
GAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGT
GGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCAT
CATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTA
CACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAG
CTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCC
GAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCC
CATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCA
CGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGAT
GTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGC
GCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGA
CCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGA
GGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGAC
CACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGT
GGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAA
CCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCC
GGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTA
CTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAA
GGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTT
CGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGT
GGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCA
GGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGG
CCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGG
CGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCCTCCCAACG
GGCCCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Figure 22

nucleotide sequence of rpl21 – PpLuc(GC) – ag – A64

GGGGCCGGAACCGCCATCTTCCAGTAATTCGCCAAAAAGCTTGAGGATGGAGGACGCCAA
GAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCA
GCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGC
CCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGA
GGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAG
CCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGC
GAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGT
GGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCAT
CATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTA
CACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAG
CTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCC
GAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCC
CATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCA
CGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGAT
GTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGC
GCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGA
CCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGA
GGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGAC
CACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGT
GGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAA
CCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCC
GGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTA
CTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAA
GGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTT
CGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGT
GGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCA
GGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGG
CCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGG
CGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCCTCCCAACG
GGCCCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Figure 23

nucleotide sequence of atp5a1 – PpLuc(GC) – ag – A64

GGGCGGCTCGGCCATTTTGTCCCAGTCAGTCCGGAGGCTGCGGCTGCAGAAGTACCGCCT
GCGGAGTAACTGCAAAGAAGCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCG
GCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAG
CGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATC
ACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGC
CTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCG
GTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAG
CGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAG
GGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATC
ATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCAC
CTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACC
ATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCG
CACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATC
ATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACG
ACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAG
CTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTG
TTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAG
ATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTC
CACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATC
ACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCC
AAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGC
GTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTC
ATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCAC
TTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCG
GCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGG
CTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAG
ACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAG
CTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGAC
GCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAA
GACTAGTTATAAGACTGACTAGCCCGATGGGCCTCCCAACGGGCCCTCCTCCCCTCCTTG
CACCGAGATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAA

Figure 24

nucleotide sequence of HSD17B4 – PpLuc(GC) – ag – A64

GGGTCCCGCAGTCGGCGTCCAGCGGCTCTGCTTGTTCGTGTGTGTGTCGTTGCAGGCCTT
ATTCAAGCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACC
CGCTGGAGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGG
TGCCGGGCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGT
ACTTCGAGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACC
ACCGGATCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCC
TCTTCATCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGA
ACAGCATGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGA
TCCTGAACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGA
CCGACTACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCT
TCAACGAGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCA
TGAACAGCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCT
GCGTGCGCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCG
CCATCCTGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACC
TCATCTGCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGA
GCCTGCAGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCG
CCAAGAGCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGG
GCGCCCCGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCA
TCCGCCAGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGG
ACGACAAGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACC
TGGACACCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGA
TGATCATGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACG
GCTGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCG
ACCGGCTGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGA
GCATCCTGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACG
ACGCCGGCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGA
AGGAGATCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCG
TGGTGTTCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCC
GCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATAAG
ACTGACTAGCCCGATGGGCCTCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTAAT
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAA

Figure 25

nucleotide sequence of AIG1 – PpLuc(GC) – ag – A64

GGGCCGCCCAGCCGGTCCAGGCCTCTGGCGAACAAGCTTGAGGATGGAGGACGCCAAGAA
CATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCAGCT
CCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGCCCA
CATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGAGGC
CATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAGCCT
GCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGCGAA
CGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGTGGT
GTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCATCAT
CCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTACAC
GTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAGCTT
CGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCCGAA
GGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCCCAT
CTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCACGG
CTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGATGTA
CCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGCGCT
GCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGACCT
GTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGAGGC
CGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGACCAC
GAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGTGGT
CCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAACCA
GCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCCGGA
GGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTACTG
GGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAAGGG
CTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTTCGA
CGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGTGGT
GCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCAGGT
GACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGGCCT
GACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGGCGG
CAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCCTCCCAACGGGC
CCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Figure 26

nucleotide sequence of COX6C – PpLuc(GC) – ag – A64

GGAGTCAGGAAGGACGTTGGTGTTGAGGTTAGCATACGTATCAAGGACAGTAACTACCAA
GCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGG
AGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGG
GCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCG
AGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGA
TCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCA
TCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCA
TGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGA
ACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACT
ACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACG
AGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACA
GCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGC
GCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCC
TGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCT
GCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGC
AGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGA
GCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCC
CGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCC
AGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACA
AGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACA
CCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCA
TGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGC
TGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGC
TGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCC
TGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCG
GCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGA
TCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGT
TCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGA
TCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGAC
TAGCCCGATGGGCCTCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Figure 27

nucleotide sequence of ASAH1 – PpLuc(GC) – ag – A64

GGGCCTCTGCTGGAGTCCGGGGAGTGGCGTTGGCTGCTAGAGCGAAGCTTGAGGATGGAG
GACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCC
GGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTC
ACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGC
CTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCG
GAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTC
GCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAG
CCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAG
CTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAG
TCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTC
CCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACC
GGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCC
CGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCG
TTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTG
GTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATC
CAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGAC
AAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAG
GTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTG
ACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTG
GGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTG
GGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTG
AACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGAC
ATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATC
AAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCC
AACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCC
GCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTG
GCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTC
CCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCC
AAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCC
TCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Figure 28

nucleotide sequence of RPL35 – PpLuc(GC) – ag – A64 – histoneSL

GGGGAGCGGGCGGCGGCGTTGGCGGCTTGTGCAGCAAAGCTTGAGGATGGAGGACGCCAA
GAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCA
GCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGC
CCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGA
GGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAG
CCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGC
GAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGT
GGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCAT
CATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTA
CACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAG
CTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCC
GAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCC
CATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCA
CGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGAT
GTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGC
GCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGA
CCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGA
GGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGAC
CACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGT
GGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAA
CCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCC
GGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTA
CTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAA
GGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTT
CGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGT
GGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCA
GGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGG
CCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGG
CGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCCTCCCAACG
GGCCCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCAAAGGCTCTTTTCAGAGC
CACCA

Figure 29

nucleotide sequence of rpl21 – PpLuc(GC) – ag – A64 – histoneSL

GGGGCCGGAACCGCCATCTTCCAGTAATTCGCCAAAAAGCTTGAGGATGGAGGACGCCAA
GAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCA
GCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGC
CCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGA
GGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAG
CCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGC
GAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGT
GGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCAT
CATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTA
CACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAG
CTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCC
GAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCC
CATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCA
CGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGAT
GTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGC
GCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGA
CCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGA
GGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGAC
CACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGT
GGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAA
CCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCC
GGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTA
CTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAA
GGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTT
CGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGT
GGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCA
GGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGG
CCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGG
CGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCCTCCCAACG
GGCCCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCAAAGGCTCTTTTCAGAGC
CACCA

Figure 30

nucleotide sequence of atp5a1 – PpLuc(GC) – ag – A64 – histoneSL

GGGCGGCTCGGCCATTTTGTCCCAGTCAGTCCGGAGGCTGCGGCTGCAGAAGTACCGCCT
GCGGAGTAACTGCAAAGAAGCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCG
GCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAG
CGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATC
ACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGC
CTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCG
GTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAG
CGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAG
GGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATC
ATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCAC
CTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACC
ATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCG
CACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATC
ATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACG
ACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAG
CTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTG
TTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAG
ATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTC
CACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATC
ACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCC
AAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGC
GTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTC
ATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCAC
TTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCG
GCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGG
CTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAG
ACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAG
CTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGAC
GCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAA
GACTAGTTATAAGACTGACTAGCCCGATGGGCCTCCCAACGGGCCCTCCTCCCCTCCTTG
CACCGAGATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAATGCATCAAAGGCTCTTTTCAGAGCCACCA

Figure 31

nucleotide sequence of HSD17B4 – PpLuc(GC) – ag – A64 – histoneSL

GGGTCCCGCAGTCGGCGTCCAGCGGCTCTGCTTGTTCGTGTGTGTGTCGTTGCAGGCCTT
ATTCAAGCTTGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACC
CGCTGGAGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGG
TGCCGGGCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGT
ACTTCGAGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACC
ACCGGATCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCC
TCTTCATCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGA
ACAGCATGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGA
TCCTGAACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGA
CCGACTACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCT
TCAACGAGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCA
TGAACAGCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCT
GCGTGCGCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCG
CCATCCTGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACC
TCATCTGCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGA
GCCTGCAGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCG
CCAAGAGCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGG
GCGCCCCGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCA
TCCGCCAGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGG
ACGACAAGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACC
TGGACACCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGA
TGATCATGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACG
GCTGGCTGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCG
ACCGGCTGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGA
GCATCCTGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACG
ACGCCGGCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGA
AGGAGATCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCG
TGGTGTTCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCC
GCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATAAG
ACTGACTAGCCCGATGGGCCTCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTAAT
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAATGCATCAAAGGCTCTTTTCAGAGCCACCA

Figure 32

nucleotide sequence of AIG1 – PpLuc(GC) – ag – A64 – histoneSL

GGGCCGCCCAGCCGGTCCAGGCCTCTGGCGAACAAGCTTGAGGATGGAGGACGCCAAGAA
CATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCAGCT
CCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGCCCA
CATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGAGGC
CATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAGCCT
GCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGCGAA
CGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGTGGT
GTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCATCAT
CCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTACAC
GTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAGCTT
CGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCCGAA
GGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCCCAT
CTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCACGG
CTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGATGTA
CCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGCGCT
GCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGACCT
GTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGAGGC
CGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGACCAC
GAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGTGGT
CCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAACCA
GCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCCGGA
GGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTACTG
GGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAAGGG
CTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTTCGA
CGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGTGGT
GCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCAGGT
GACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGGCCT
GACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGGCGG
CAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCCTCCCAACGGGC
CCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCAAAGGCTCTTTTCAGAGCCAC
CA

Figure 33

nucleotide sequence of COX6C – PpLuc(GC) – ag – A64 – histoneSL

GGAGTCAGGAAGGACGTTGGTGTTGAGGTTAGCATACGTATCAAGGACAGTAACTACCAA
GCTTGAGG*ATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGG*
AGGACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGG
GCACGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCG
AGATGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGA
TCGTGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCA
TCGGCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCA
TGGGGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGA
ACGTGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACT
ACCAGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACG
AGTACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACA
GCAGCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGC
GCTTCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCC
TGAGCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCT
GCGGCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGC
AGGACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGA
GCACCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCC
CGCTGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCC
AGGGCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACA
AGCCGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACA
CCGGCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCA
TGAGCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGC
TGCACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGC
TGAAGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCC
TGCTCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCG
GCGAGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGA
TCGTCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGT
TCGTGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGA
*TCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAA*GACTAGTTATAAGACTGAC
TAGCCCGATGGGCCTCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
TGCATCAAAGGCTCTTTTCAGAGCCACCA

Figure 34

nucleotide sequence of ASAH1 – PpLuc(GC) – ag – A64 – histoneSL

GGGCCTCTGCTGGAGTCCGGGGAGTGGCGTTGGCTGCTAGAGCGAAGCTTGAGGATGGAG
GACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCC
GGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTC
ACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGC
CTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCG
GAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTC
GCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAG
CCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAG
CTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAG
TCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTC
CCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACC
GGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCC
CGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCG
TTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTG
GTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATC
CAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGAC
AAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAG
GTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTG
ACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTG
GGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTG
GGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTG
AACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGAC
ATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATC
AAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCC
AACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCC
GCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTG
GCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTC
CCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCC
AAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTTATAAGACTGACTAGCCCGATGGGCC
TCCCAACGGGCCCTCCTCCCCTCCTTGCACCGAGATTAATAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCAAAGGCTCTT
TTCAGAGCCACCA

Figure 35

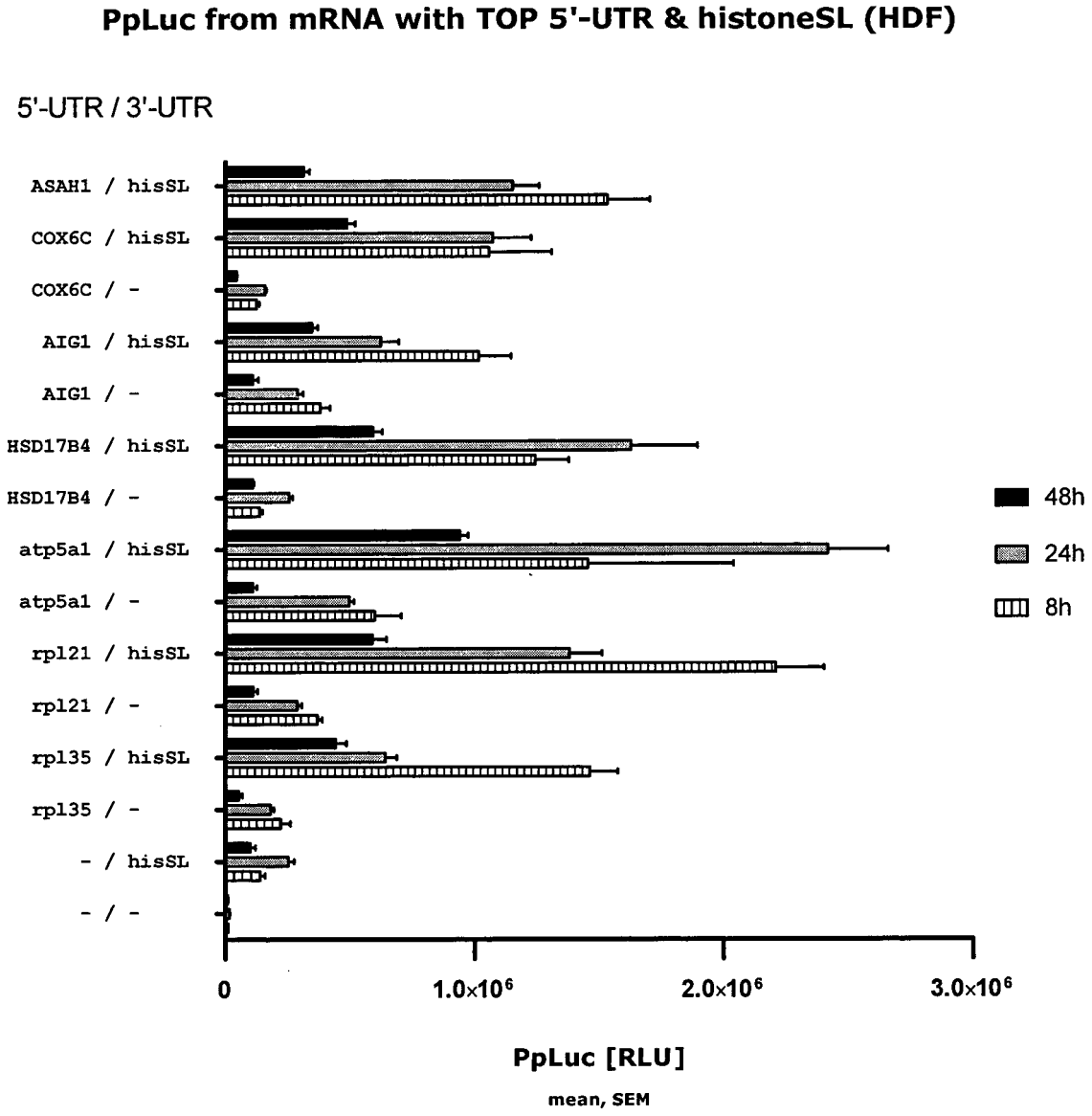

PpLuc from mRNA with TOP 5'-UTR & histoneSL (HDF)
5'-UTR / 3'-UTR
ASAH1 / hisSL
COX6C / hisSL
COX6C / -
AIG1 / hisSL
AIG1 / -
HSD17B4 / hisSL
HSD17B4 / -
atp5a1 / hisSL
atp5a1 / -
rpl21 / hisSL
rpl21 / -
rpl35 / hisSL
rpl35 / -
- / hisSL
- / -
48h
24h
8h
0
1.0x10^6
2.0x10^6
3.0x10^6
PpLuc [RLU]
mean, SEM

Figure 36

nucleotide sequence of mRPL21 – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGGCCGCCGCAGCCATCTTCCAGTAACTCGCCAAAAAGCTTGAGGATGGAGGACGCCAA
GAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGGACGGGACCGCCGGCGAGCA
GCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCACGATCGCCTTCACCGACGC
CCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGATGAGCGTGCGCCTGGCCGA
GGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCGTGGTGTGCTCGGAGAACAG
CCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCGGCGTGGCCGTCGCCCCGGC
GAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGGGGATCAGCCAGCCGACCGT
GGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACGTGCAGAAGAAGCTGCCCAT
CATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACCAGGGCTTCCAGTCGATGTA
CACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGTACGACTTCGTCCCGGAGAG
CTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCAGCGGCAGCACCGGCCTGCC
GAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCTTCTCGCACGCCCGGGACCC
CATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGAGCGTGGTGCCGTTCCACCA
CGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCGGCTTCCGGGTGGTCCTGAT
GTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGGACTACAAGATCCAGAGCGC
GCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCACCCTGATCGACAAGTACGA
CCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGCTGAGCAAGGAGGTGGGCGA
GGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGGGCTACGGCCTGACCGAGAC
CACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGCCGGGCGCCGTGGGCAAGGT
GGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCGGCAAGACCCTGGGCGTGAA
CCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGAGCGGCTACGTGAACAACCC
GGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGCACAGCGGCGACATCGCCTA
CTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGAAGTCGCTGATCAAGTACAA
GGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGCTCCAGCACCCCAACATCTT
CGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCGAGCTGCCGGCCGCGGTGGT
GGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCGTCGACTACGTGGCCAGCCA
GGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCGTGGACGAGGTCCCGAAGGG
CCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCCTGATCAAGGCCAAGAAGGG
CGGCAAGATCGCCGTGTAAGACTAGTGCATCACATTTAAAAGCATCTCAGCCTACCATGA
GAATAAGAGAAAGAAAATGAAGATCAATAGCTTATTCATCTCTTTTTCTTTTTCGTTGGT
GTAAAGCCAACACCCTGTCTAAAAAACATAAATTTCTTTAATCATTTTGCCTCTTTTCTC
TGTGCTTCAATTAATAAAAAATGGAAAGAACCTAGATCTAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATGCATCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCCACCAGAATT

Figure 37

nucleotide sequence of mRPL35A – PpLuc(GC) – albumin7 – A64 – C30 – histoneSL

GGGCCATCTTGGCGCCTGTGGAGGCCTGCTGGGAACAGGACTTCTAACAGCAAGTAAGCT
TGAGGATGGAGGACGCCAAGAACATCAAGAAGGGCCCGGCGCCCTTCTACCCGCTGGAGG
ACGGGACCGCCGGCGAGCAGCTCCACAAGGCCATGAAGCGGTACGCCCTGGTGCCGGGCA
CGATCGCCTTCACCGACGCCCACATCGAGGTCGACATCACCTACGCGGAGTACTTCGAGA
TGAGCGTGCGCCTGGCCGAGGCCATGAAGCGGTACGGCCTGAACACCAACCACCGGATCG
TGGTGTGCTCGGAGAACAGCCTGCAGTTCTTCATGCCGGTGCTGGGCGCCCTCTTCATCG
GCGTGGCCGTCGCCCCGGCGAACGACATCTACAACGAGCGGGAGCTGCTGAACAGCATGG
GGATCAGCCAGCCGACCGTGGTGTTCGTGAGCAAGAAGGGCCTGCAGAAGATCCTGAACG
TGCAGAAGAAGCTGCCCATCATCCAGAAGATCATCATCATGGACAGCAAGACCGACTACC
AGGGCTTCCAGTCGATGTACACGTTCGTGACCAGCCACCTCCCGCCGGGCTTCAACGAGT
ACGACTTCGTCCCGGAGAGCTTCGACCGGGACAAGACCATCGCCCTGATCATGAACAGCA
GCGGCAGCACCGGCCTGCCGAAGGGGGTGGCCCTGCCGCACCGGACCGCCTGCGTGCGCT
TCTCGCACGCCCGGGACCCCATCTTCGGCAACCAGATCATCCCGGACACCGCCATCCTGA
GCGTGGTGCCGTTCCACCACGGCTTCGGCATGTTCACGACCCTGGGCTACCTCATCTGCG
GCTTCCGGGTGGTCCTGATGTACCGGTTCGAGGAGGAGCTGTTCCTGCGGAGCCTGCAGG
ACTACAAGATCCAGAGCGCGCTGCTCGTGCCGACCCTGTTCAGCTTCTTCGCCAAGAGCA
CCCTGATCGACAAGTACGACCTGTCGAACCTGCACGAGATCGCCAGCGGGGGCGCCCCGC
TGAGCAAGGAGGTGGGCGAGGCCGTGGCCAAGCGGTTCCACCTCCCGGGCATCCGCCAGG
GCTACGGCCTGACCGAGACCACGAGCGCGATCCTGATCACCCCCGAGGGGGACGACAAGC
CGGGCGCCGTGGGCAAGGTGGTCCCGTTCTTCGAGGCCAAGGTGGTGGACCTGGACACCG
GCAAGACCCTGGGCGTGAACCAGCGGGGCGAGCTGTGCGTGCGGGGGCCGATGATCATGA
GCGGCTACGTGAACAACCCGGAGGCCACCAACGCCCTCATCGACAAGGACGGCTGGCTGC
ACAGCGGCGACATCGCCTACTGGGACGAGGACGAGCACTTCTTCATCGTCGACCGGCTGA
AGTCGCTGATCAAGTACAAGGGCTACCAGGTGGCGCCGGCCGAGCTGGAGAGCATCCTGC
TCCAGCACCCCAACATCTTCGACGCCGGCGTGGCCGGGCTGCCGGACGACGACGCCGGCG
AGCTGCCGGCCGCGGTGGTGGTGCTGGAGCACGGCAAGACCATGACGGAGAAGGAGATCG
TCGACTACGTGGCCAGCCAGGTGACCACCGCCAAGAAGCTGCGGGGCGGCGTGGTGTTCG
TGGACGAGGTCCCGAAGGGCCTGACCGGGAAGCTCGACGCCCGGAAGATCCGCGAGATCC
TGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTGCATCACATTTAAAA
GCATCTCAGCCTACCATGAGAATAAGAGAAAGAAAATGAAGATCAATAGCTTATTCATCT
CTTTTTCTTTTTCGTTGGTGTAAAGCCAACACCCTGTCTAAAAAACATAAATTTCTTTAA
TCATTTTGCCTCTTTTCTCTGTGCTTCAATTAATAAAAAATGGAAAGAACCTAGATCTAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AATGCATCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGCCACC
AGAATT

Figure 38

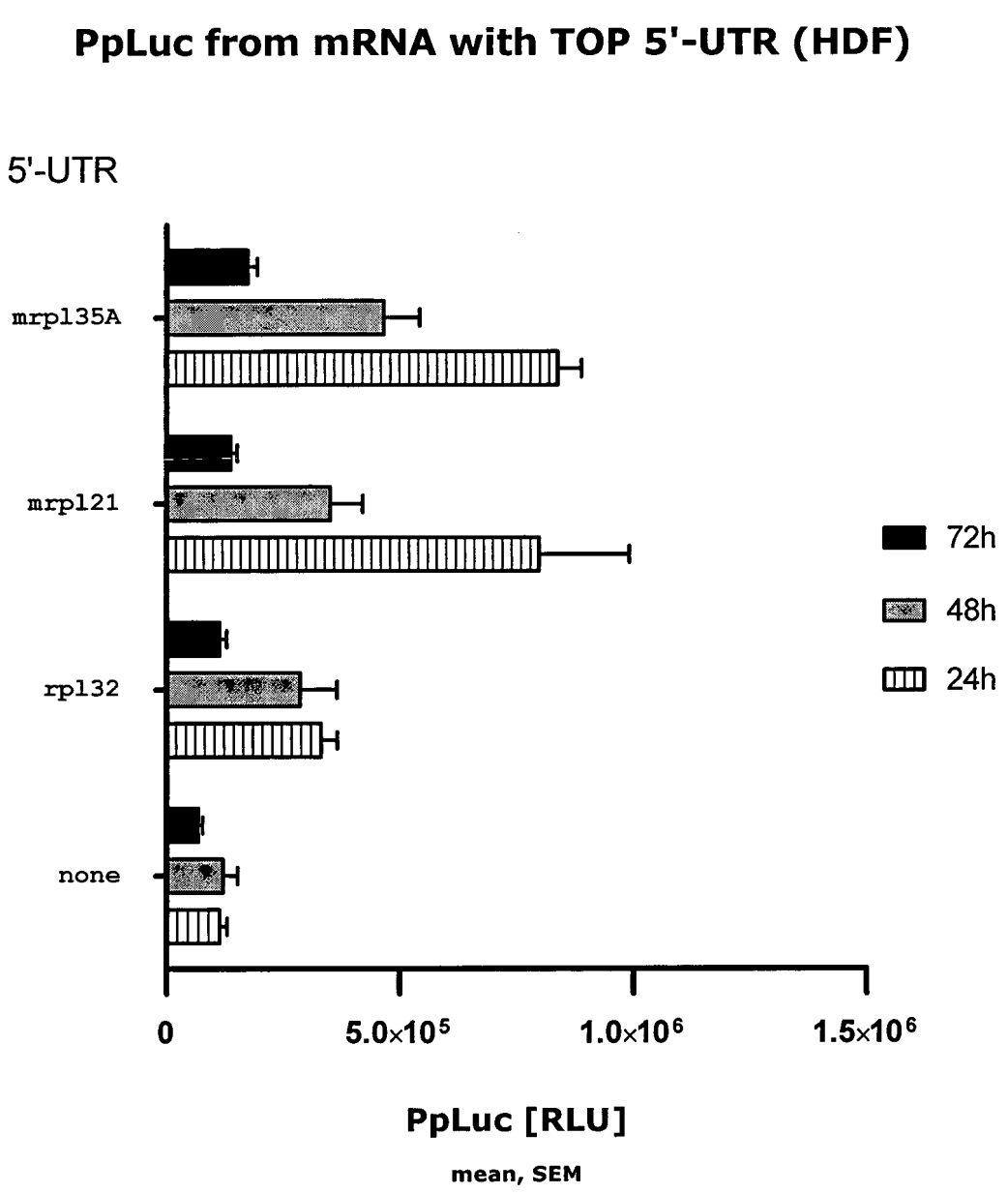

PpLuc from mRNA with TOP 5'-UTR (HDF)
5'-UTR
mrpl35A
mrpl21
rpl32
none
72h
48h
24h
0
5.0x10^5
1.0x10^6
1.5x10^6
PpLuc [RLU]
mean, SEM

Figure 39