32L4 – PpLuc(GC) – A64 - C30 - hSL (R2464)

(SEQ ID NO: 35):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGGAUGGAG
GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC
GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC
ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC
CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG
GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC
GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG
CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG
CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG
UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC
CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC
GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC
CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG
UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG
GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC
CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC
AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG
GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG
ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG
GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG
GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG
AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC
AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC
AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC
AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC
GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG
GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC
CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC
AAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUAGAUCUAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAUU

Fig. 1

32L4 – PpLuc(GC) – gnas-A64-C30-hSL (R3089)

(SEQ ID NO: 36):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGGAUGGAG
GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC
GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC
ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC
CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG
GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC
GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG
CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG
CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG
UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC
CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC
GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC
CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG
UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG
GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC
CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC
AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG
GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG
ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG
GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG
GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG
AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC
AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC
AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC
AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC
GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG
GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC
CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC
AAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUGAAGGGAACACCCAAAUUUAAUUCAG
CCUUAAGCACAAUUAAUUAAGAGUGAAACGUAAUUGUACAAGCAGUUGGUCACCCACCAU
AGGGCAUGAUCAACACCGCAACCUUUCCUUUUUCCCCCAGUGAUUCUGAAAAACCCCUCU
UCCCUUCAGCUUGCUUAGAUGUUCCAAAUUUAGUAAGCUUAAGGCGGCCUACAGAAGAAA
AAGAAAAAAAAGGCCACAAAAGUUCCCUCUCACUUUCAGUAAAUAAAAUAAAAGCAGCAA
CAGAAAUAAAGAAAUAAAUGAAAUUCAAAAUGAAAUAAAUAUUGUGUUGUGCAGCAUUAA
AAAAUCAAUAAAAAUUAAAAAUGAGCAAGAUCUAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCCCCCC
CCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAUU

Fig. 2

32L4 - PpLuc(GC) – morn2– A64 - C30 - hSL (R3106)

(SEQ ID NO: 37):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGGAUGGAG
GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC
GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC
ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC
CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG
GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC
GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG
CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG
CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG
UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC
CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC
GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC
CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG
UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG
GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC
CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC
AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG
GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG
ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG
GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG
GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG
AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC
AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC
AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC
AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC
GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG
GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC
CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC
AAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUACCUGCUGCCUUAACGCUGAGAUGUG
GCCUCUGCAACCCCCCUUAGGCAAAGCAACUGAACCUUCUGCUAAAGUGACCUGCCCUCU
UCCGUAAGUCCAAUAAAGUUGUCAUGCACCCAGAUCUAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAUU

Fig. 3

32L4 - PpLuc(GC) – gstm1– A64 - C30 - hSL (R3107)

(SEQ ID NO: 38):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGGAUGGAG
GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC
GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC
ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC
CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG
GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC
GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG
CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG
CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG
UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC
CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC
GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC
CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG
UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG
GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC
CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC
AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG
GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG
ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG
GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG
GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG
AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC
AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC
AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC
AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC
GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG
GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC
CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC
AAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUGCCCUUGCUACACGGGCACUCACUAG
GAGGACCUGUCCACACUGGGGAUCCUGCAGGCCCUGGGUGGGGACAGCACCCUGGCCUUC
UGCACUGUGGCUCCUGGUUCUCUCCCUUCCCGCUCCCUUCUGCAGCUUGGUCAGCCCCA
UCUCCUCACCCUCUUCCCAGUCAAGUCCACACAGCCUUCAUUCUCCCCAGUUUCUUUCAC
AUGGCCCCUUCUUCAUUGGCUCCCUGACCCAACCUCACAGCCCGUUUCUGCGAACUGAGG
UCUGUCCUGAACUCACGCUUCCUAGAAUUACCCCGAUGGUCAACACUAUCUUAGUGCUAG
CCCUCCCUAGAGUUACCCCGAAGGUCAAUACUUGAGUGCCAGCCUGUUCCUGGUGGAGUA
GCCUCCCCAGGUCUGUCUCGUCUACAAUAAAGUCUGAAACACACUUGCCAUGAGAUCUAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACC
AGAAUU

Fig. 4

32L4 - PpLuc(GC) – ndufa1 – A64 - C30 - hSL (R3108)

(SEQ ID NO: 39):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGGAUGGAG
GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC
GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC
ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC
CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG
GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC
GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG
CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG
CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG
UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC
CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC
GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC
CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG
UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG
GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC
CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC
AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG
GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG
ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG
GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG
GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG
AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC
AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC
AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC
AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC
GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG
GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC
CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC
AAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUGGAAGCAUUUUCCUGGCUGAUUAAAA
GAAAUUACUCAGCUAUGGUCAUCUGUUCCUGUUAGAAGGCUAUGCAGCAUAUUAUAUACU
AUGCGCAUGUUAUGAAAUGCAUAAUAAAAAAUUUUAAAAAAUCUAAAAGAUCUAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGC
AUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAU
U

Fig. 5

32L4 - PpLuc(GC) – cbr2 – A64 - C30 - hSL (R3109)

(SEQ ID NO: 40):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGGAUGGAG
GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC
GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC
ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC
CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG
GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC
GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG
CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG
CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG
UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC
CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC
GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC
CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG
UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG
GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC
CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC
AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG
GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG
ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG
GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG
GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG
AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC
AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC
AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC
AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC
GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG
GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC
CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC
AAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUUCUGCUCAGUUGCCGCGGACAUCUGA
GUGGCCUUCUUAGCCCCACCCUCAGCCAAAGCAUUUACUGAUCUCGUGACUCCGCCCUCA
UGCUACAGCCACGCCCACCACGCAGCUCACAGUUCCACCCCCAUGUUACUGUCGAUCCCA
CAACCACUCCAGGCGCAGACCUUGUUCUCUUUGUCCACUUUGUUGGGCUCAUUUGCCUAA
AUAAACGGGCCACCGCGUUACCUUUAACUAUAGAUCUAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAUU

Fig. 6

PpLuc(GC) - albumin7– A64 - C30 - hSL (R2463)

(SEQ ID NO: 41):

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
CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUGCAU
CACAUUUAAAAGCAUCUCAGCCUACCAUGAGAAUAAGAGAAAGAAAAUGAAGAUCAAUAG
CUUAUUCAUCUCUUUUUCUUUUUCGUUGGUGUAAAGCCAACACCCUGUCUAAAAAACAUA
AAUUUCUUUAAUCAUUUUGCCUCUUUUCUCUGUGCUUCAAUUAAUAAAAAAUGGAAAGAA
CCUAGAUCUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUU
UCAGAGCCACCAGAAUU

Fig. 7

Mp68 - PpLuc(GC) - albumin7– A64 - C30 - hSL (R3111)

(SEQ ID NO: 42):

GGGCUUUCCCAUUCUGUAGCAGAAUUUGGUGUUGCCUGUGGUCUUGGUCCCGCGGAGAAG
CUUGAGGAUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGA
GGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGG
CACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGA
GAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAU
CGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAU
CGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAU
GGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAA
CGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUA
CCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGA
GUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAG
CAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCG
CUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCU
GAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUG
CGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCA
GGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAG
CACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCC
GCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCA
GGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAA
GCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACAC
CGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAU
GAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCU
GCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCU
GAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCU
GCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGG
CGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAU
CGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUU
CGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAU
CCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUGCAUCACAUUUAA
AAGCAUCUCAGCCUACCAUGAGAAUAAGAGAAAGAAAAUGAAGAUCAAUAGCUUAUUCAU
CUCUUUUUCUUUUUCGUUGGUGUAAAGCCAACACCCUGUCUAAAAAACAUAAAUUUCUUU
AAUCAUUUUGCCUCUUUUCUCUGUGCUUCAAUUAAUAAAAAAUGGAAAGAACCUAGAUCU
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCA
CCAGAAUU

Fig. 8

Ndufa4 - PpLuc(GC) - albumin7– A64 - C30 - hSL (R3112)

(SEQ ID NO: 43):

GGGGUCCGCUCAGCCAGGUUGCAGAAGCGGCUUAGCGUGUGUCCUAAUCUUCUCUCUGCG
UGUAGGUAGGCCUGUGCCGCAAACAAGCUUGAGG*AUGGAGGACGCCAAGAACAUCAAGAA*
*GGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGC*
*CAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGU*
*CGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCG*
*GUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUU*
*CAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUA*
*CAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAG*
*CAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAU*
*CAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGAC*
*CAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGA*
*CAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGC*
*CCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAA*
*CCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAU*
*GUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGA*
*GGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCC*
*GACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCU*
*GCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAA*
*GCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAU*
*CCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUU*
*CGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGA*
*GCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAA*
*CGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGA*
*CGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGU*
*GGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGU*
*GGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCA*
*CGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGC*
*CAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAA*
*GCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGC*
*CGUGUAA*GACUAGUGCAUCACAUUUAAAAGCAUCUCAGCCUACCAUGAGAAUAAGAGAAA
GAAAAUGAAGAUCAAUAGCUUAUUCAUCUCUUUUUCUUUUUCGUUGGUGUAAAGCCAACA
CCCUGUCUAAAAAACAUAAAUUUCUUUAAUCAUUUUGCCUCUUUUCUCUGUGCUUCAAUU
AAUAAAAAAUGGAAAGAACCUAGAUCUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCCCCCCCCCCC
CCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAUU

Fig. 9

PpLuc(GC) – A64 - C30 - hSL (R2462)

(SEQ ID NO: 44):

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
CCGCGAGATCCTGATCAAGGCCAAGAAGGGCGGCAAGATCGCCGTGTAAGACTAGTAGAT
CTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAATGCATCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCTCTTTTCAGAGC
CACCAGAATT

Fig. 10

PpLuc(GC) – gnas- A64 - C30 – hSL (R3116)
(SEQ ID NO: 45):

GGGAGAAAGCUUGAGG*AUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA*
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*
*CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAA*GACUAGUGAAG
GGAACACCCAAAUUUAAUUCAGCCUUAAGCACAAUUAAUUAAGAGUGAAACGUAAUUGUA
CAAGCAGUUGGUCACCCACCAUAGGGCAUGAUCAACACCGCAACCUUUCCUUUUUCCCCC
AGUGAUUCUGAAAAACCCCUCUUCCCUUCAGCUUGCUUAGAUGUUCCAAAUUUAGUAAGC
UUAAGGCGGCCUACAGAAGAAAAAGAAAAAAAAGGCCACAAAAGUUCCCUCUCACUUUCA
GUAAAUAAAAUAAAAGCAGCAACAGAAAUAAAGAAAUAAAUGAAAUUCAAAAUGAAAUAA
AUAUUGUGUUGUGCAGCAUUAAAAAAUCAAUAAAAAUUAAAAAUGAGCAAGAUCUAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAU
GCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGA
AUU

Fig. 11

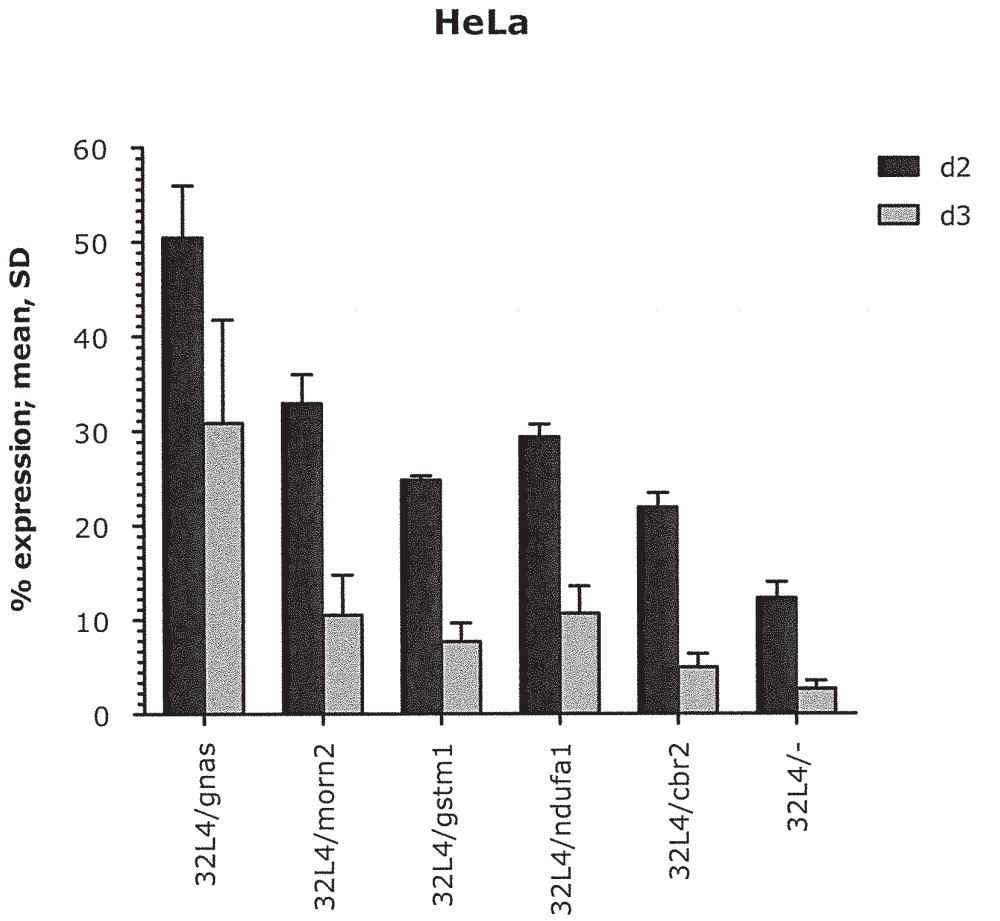

HeLa
% expression; mean, SD
60
50
40
30
20
10
0
d2
d3
32L4/gnas
32L4/morn2
32L4/gstm1
32L4/ndufa1
32L4/cbr2
32L4/-

Fig. 12

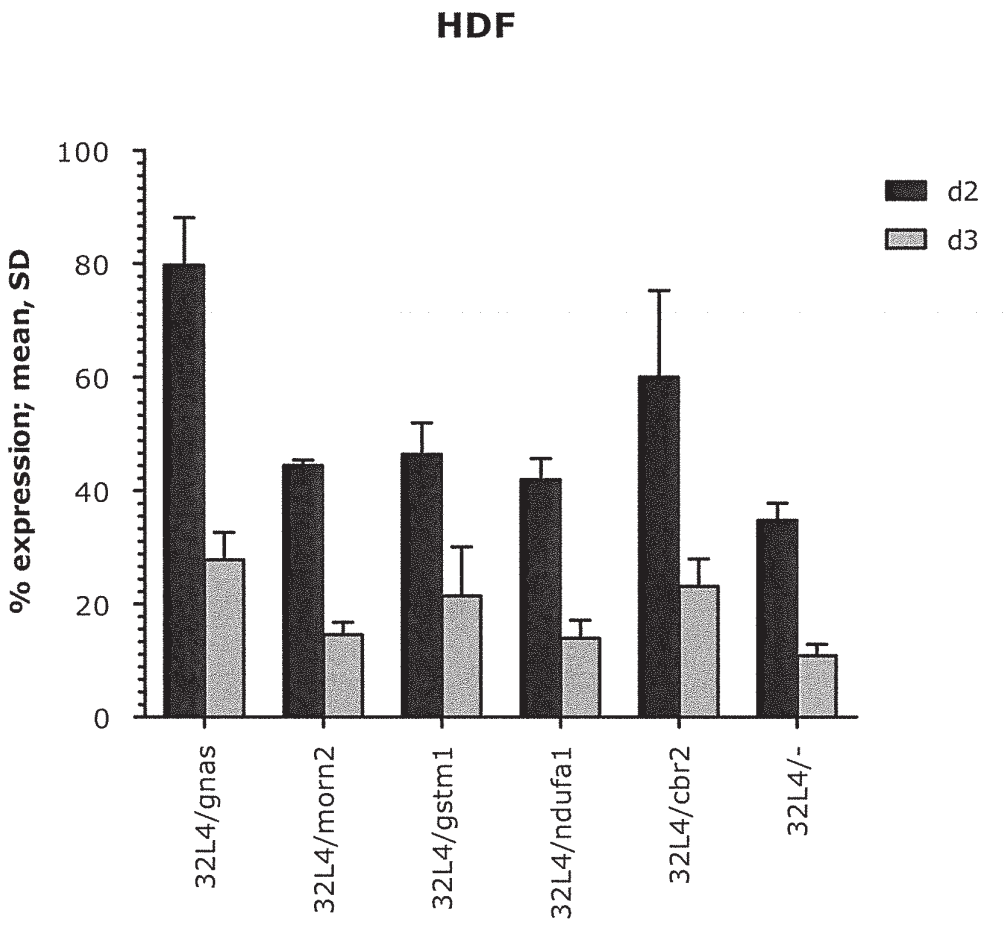

HDF
% expression; mean, SD
100
80
60
40
20
0
d2
d3
32L4/gnas
32L4/morn2
32L4/gstm1
32L4/ndufa1
32L4/cbr2
32L4/-

Fig. 13

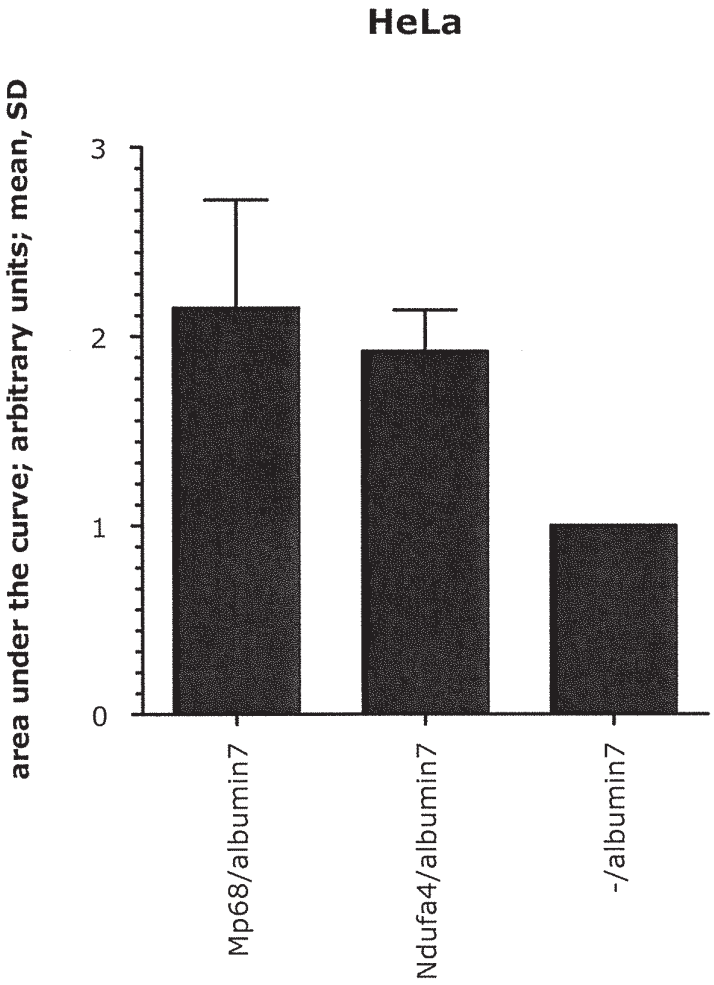

HeLa
area under the curve; arbitrary units; mean, SD
3
2
1
0
Mp68/albumin7
Ndufa4/albumin7
-/albumin7

Fig. 14

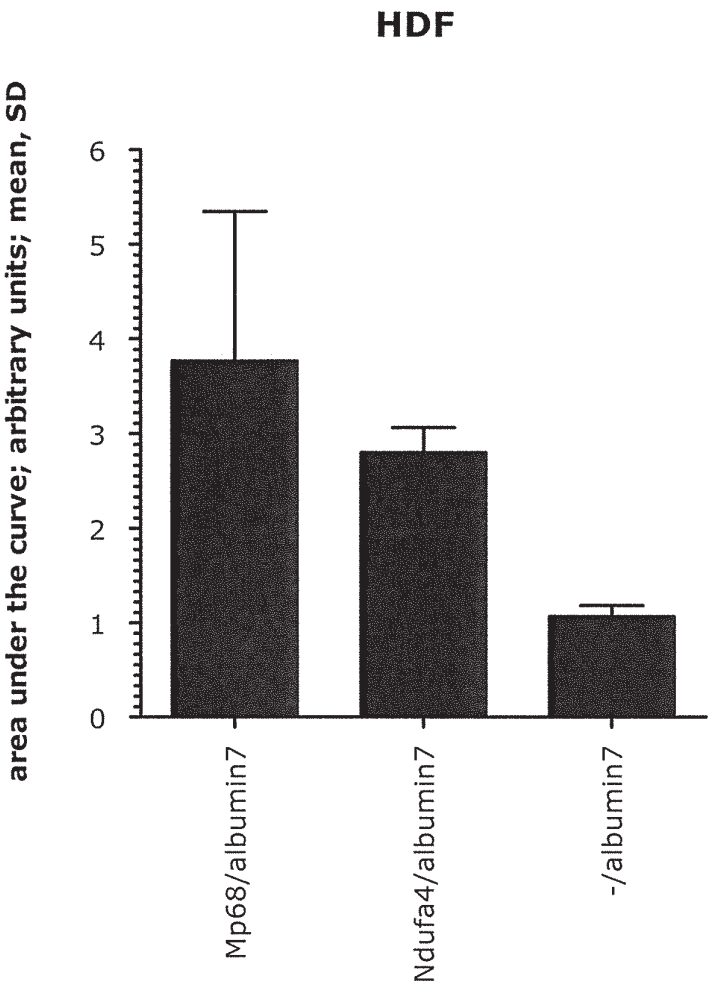

HDF
area under the curve; arbitrary units; mean, SD
6
5
4
3
2
1
0
Mp68/albumin7
Ndufa4/albumin7
-/albumin7

Fig. 15

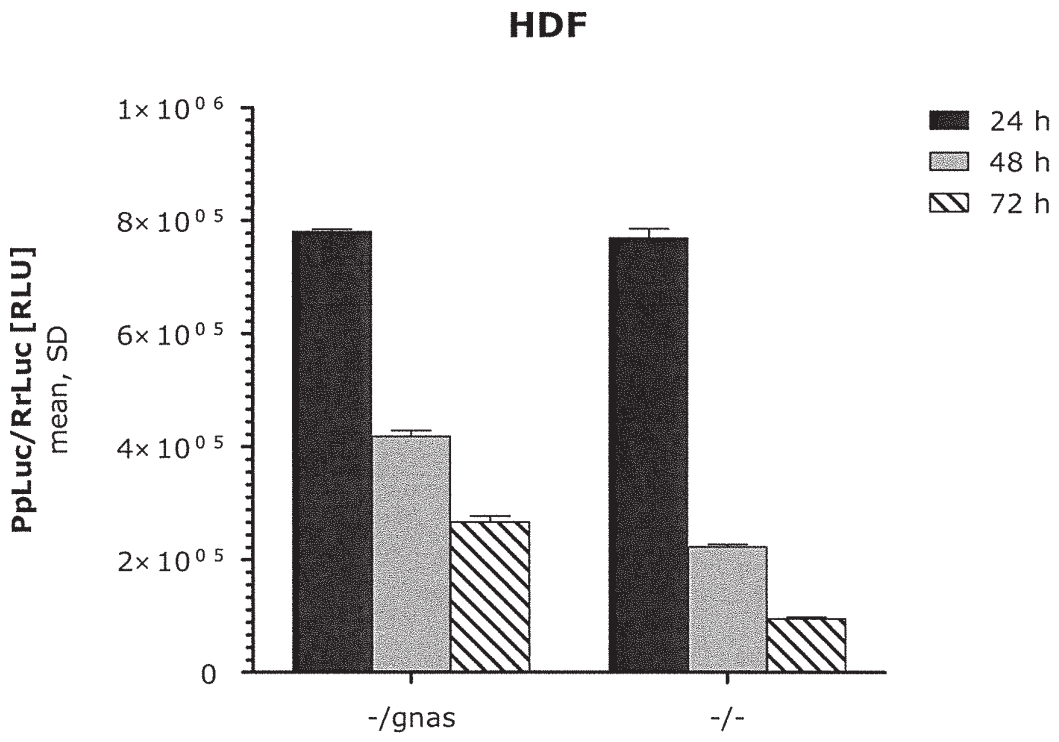

HDF
PpLuc/RrLuc [RLU]
mean, SD
1×10^06
8×10^05
6×10^05
4×10^05
2×10^05
0
-/gnas
-/-
24 h
48 h
72 h

Fig. 16

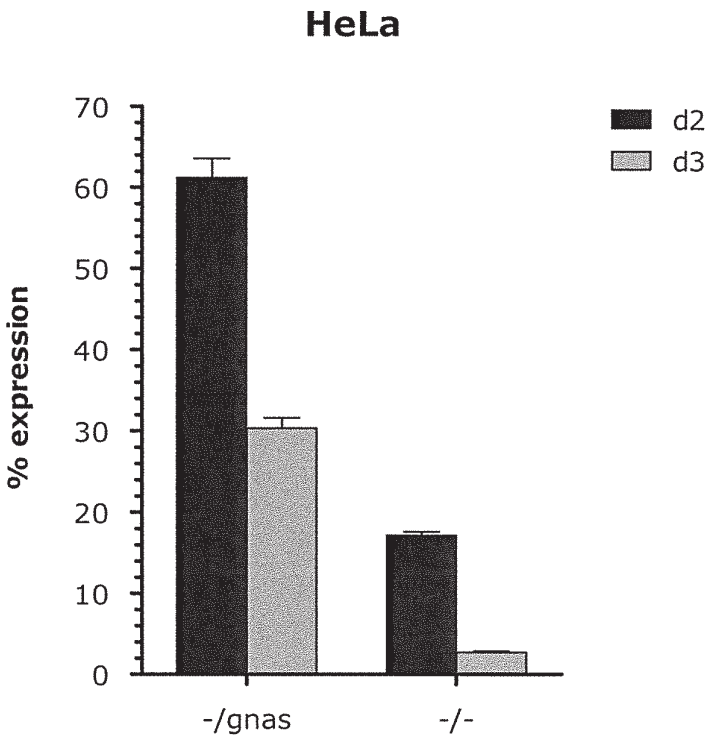



Fig. 17

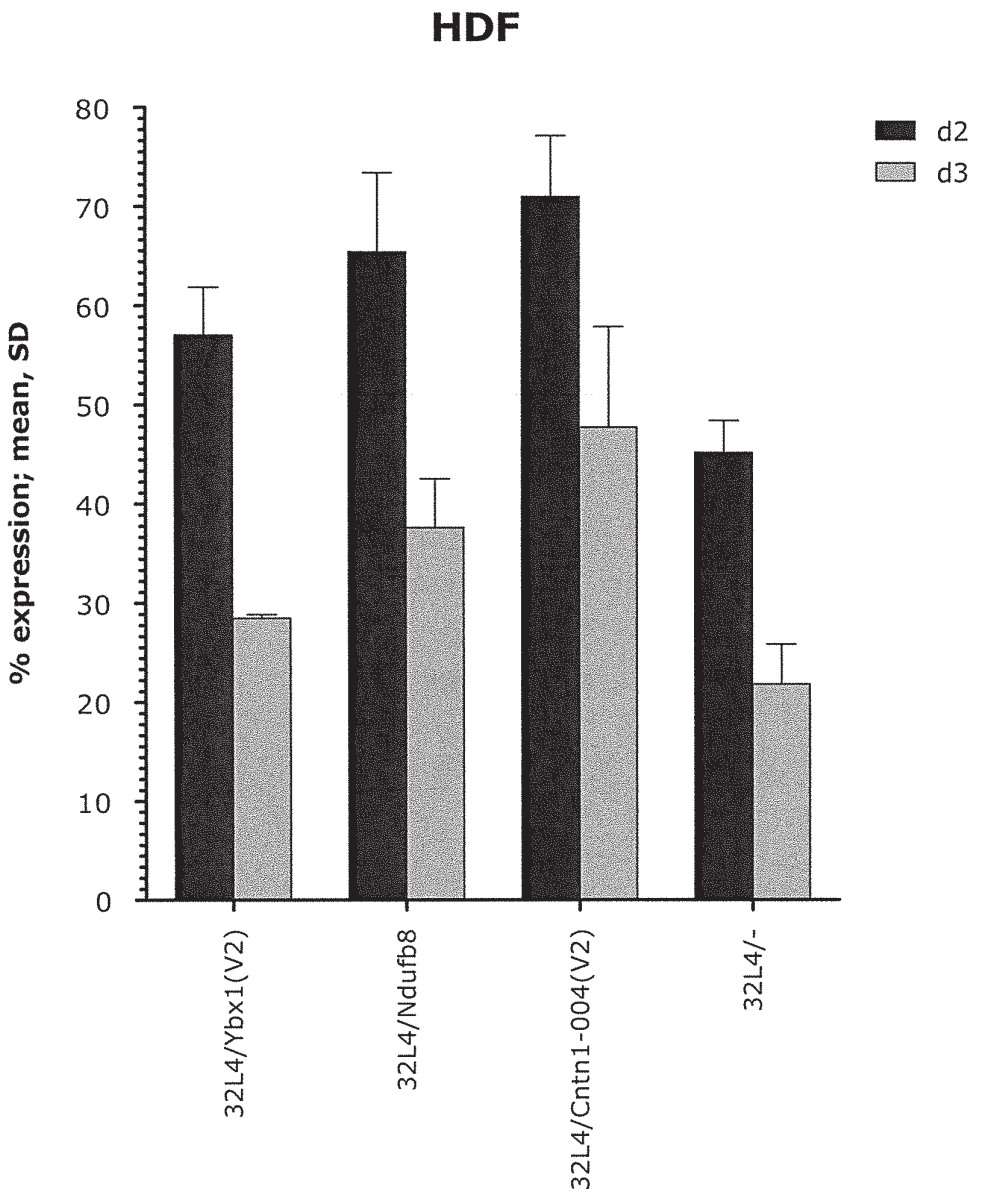

HDF
% expression; mean, SD
0
10
20
30
40
50
60
70
80
d2
d3
32L4/Ybx1(V2)
32L4/Ndufb8
32L4/Cntn1-004(V2)
32L4/-

Fig. 18

32L4 – PpLuc(GC) – Ybx1(V2)-A64-C30-hSL (R3623)

3´UTR with mutation T128bpG and deletion del236-237bp

(SEQ ID NO: 46):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGGAUGGAG
GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC
GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC
ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC
CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG
GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC
GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG
CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG
CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG
UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC
CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC
GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC
CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG
UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG
GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC
CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC
AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG
GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG
ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG
GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG
GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG
AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC
AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC
AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC
AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC
GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG
GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC
CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC
AAGAAGGGCGGCAAGAUCGCCGUGUAAGACUAGUAUGCCGGCUUACCAUCUCUACCAUCA
UCCGGUUUGGUCAUCCAACAAGAAGAAAUGAAUAUGAAAUUCCAGCAAUAAGAAAUGAAC
AAAGAUUGGAGCUGAAGACCUUAAGUGCUUGCUUUUUGCCCGCUGACCAGAUAACAUUAG
AACUAUCUGCAUUAUCUAUGCAGCAUGGGGUUUUUAUUAUUUUUACCUAAAGAUGUCUCU
UUUUGGUAAUGACAAACGUGUUUUUUAAGAAAAAAAAAAAAGGCCUGGUUUUUCUCAAUA
CACCUUUAACGGUUUUUAAAUUGUUUCAUAUCUGGUCAAGUUGAGAUUUUUAAGAACUUC
AUUUUUAAUUUGUAAUAAAGUUUACAACUUGAUUUUUUCAAAAAAGUCAACAAACUGCAA
GCACCUGUUAAUAAAGGUCUUAAAUAAUAAAGAUCUAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAUU

Fig. 19

32L4 – PpLuc(GC) – Ndufb8-A64-C30-hSL (R3624)

(SEQ ID NO: 47):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGG*AUGGAG*
*GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC*
*GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC*
*ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC*
*CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG*
*GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC*
*GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG*
*CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG*
*CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG*
*UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC*
*CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC*
*GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC*
*CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG*
*UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG*
*GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC*
*CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC*
*AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG*
*GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG*
*ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG*
*GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG*
*GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG*
*AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC*
*AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC*
*AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC*
*AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC*
*GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG*
*GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC*
*CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC*
*AAGAAGGGCGGCAAGAUCGCCGUGUAA*GACUAGUGGAGGCUUGAUGGGCUUUUUGCCCUC
GUUCCUAGAGGCUUAACCAUAAUAAAAUCCCUAAUAAAGCAGAUCUAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCC
CCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAUU

Fig. 20

32L4 – PpLuc(GC) – Cntn1-004(V2)-A64-C30-hSL (R3625)
+T at pos. 30bp, mutations G727bpT, A840bpG

(SEQ ID NO: 48):

GGGGCGCUGCCUACGGAGGUGGCAGCCAUCUCCUUCUCGGCAUCAAGCUUGAGG*AUGGAG*
*GACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCC*
*GGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUC*
*ACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGC*
*CUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCG*
*GAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUC*
*GCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAG*
*CCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAG*
*CUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAG*
*UCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUC*
*CCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACC*
*GGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCC*
*CGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCUGAGCGUGGUGCCG*
*UUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUG*
*GUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUC*
*CAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGAC*
*AAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAG*
*GUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUG*
*ACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUG*
*GGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUG*
*GGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUG*
*AACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGAC*
*AUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUC*
*AAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCC*
*AACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCC*
*GCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUG*
*GCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUC*
*CCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCC*
*AAGAAGGGCGGCAAGAUCGCCGUGUAA*GACUAGUUCGUUGACACUCACCAUUUCUGUGAA
AGACUUUUUUUUUUUUUAACAUAUUAUACUAGAUUUGACUAACUCAAUCUUGUAGCUUCU
GCAGUUCUCCCCACCCCCAACCUAGUUCUUAGAGUAUGUUUCCCCUUUUGAAACAUGUAA
ACAUACUUUGGGCAUAAAAUAUUUUUAAAAUAUAACUAUAAUGCUUCACUAAUACCUUAA
AAAUGCCUAGUGAACUAACUCAGUACAUUAUAUAAUGGCCAAGUGAAAGUUUUGUGUUUU
CAUGUCCUGUUUUUCUUUGAAAUUAUAUAGCCCAGAAAUUAGCUCAUUAUCUGAAAAACG
UAUGAAGAACUGAUGAAUUGUAUAAUACAGGAGUAUUGCCAUUGAAUGUACUGUUUGAUU
UAUUCAAGCAGGUAAUGAACAAUGUUGUCAAACUCUCUAAUGAGACAUCAUAAUUAGGAC
AUAAGCUAAAAGGGGCAUUACUCCGGCAGUCUUUUUUUCUUAAUCCUAGUACCAUACAUA
UUCUUUGGCAUGAAAGAAUGAAAAGCAUUAGUAAACAACUGAAGUCCUACCAUGGCUCUG
UAGGGUUUUUGGAACAAUUCCUGGAAUUGGAAAGUGAAAAUGGAUAGCAUGUGGGGGAAA
CCCUCAUCUGAGUAGCAAGAUUUUAGUAAAGAUGACUAAGCCAUUAACAGCAUGCAUUCA
UAUUUAAUUUUAUUGACUCCUGCCAUCAGCUUUUGUAGAUCUUUUGGGUGGAAGGUUGUG
AUUUUUACUGGGAGGACUUGAGUAGAAGUGGAUGAUUAAAAUUGAGGAGUAUAUAAUUCU
UUCUGGGACUGCUUAAAUGUUAUUGUUUGAAAAUGCCUUCACUUUCCCCCUUUGGUCAAA
GAGAUGUGCUUAAAAUUCUUAUUCCUUCACAAUAAAUAAUUUUGAUUUUCUUAGACAAGA
UCUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAG
CCACCAGAAUU

Fig. 21

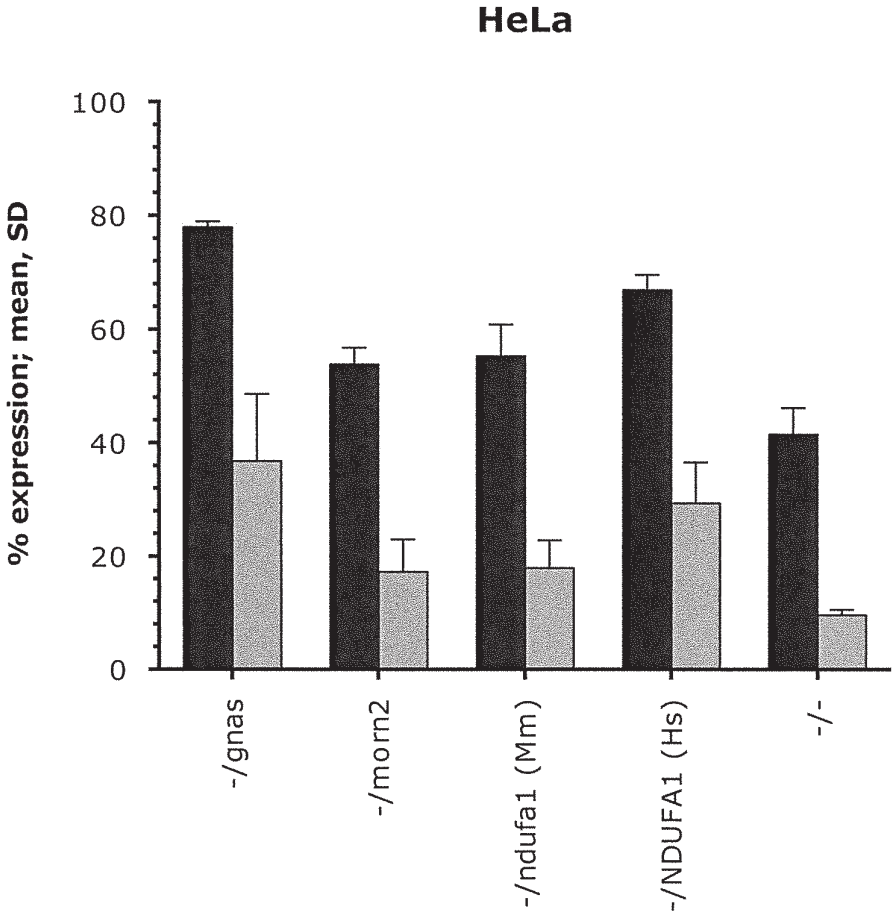

HeLa
% expression; mean, SD
100
80
60
40
20
0
-/gnas
-/morn2
-/ndufa1 (Mm)
-/NDUFA1 (Hs)
-/-

Fig. 22

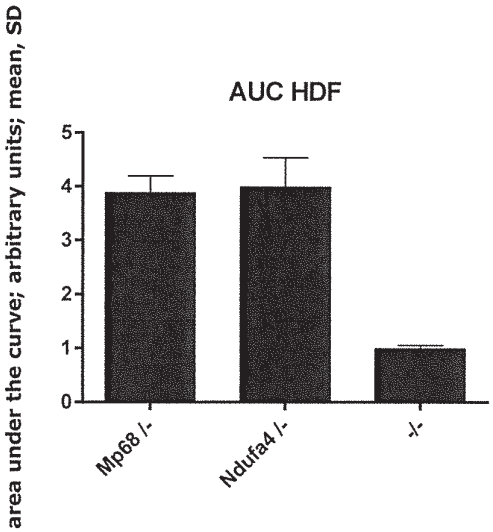

AUC HDF
area under the curve; arbitrary units; mean, SD
0
1
2
3
4
5
Mp68 /-
Ndufa4 /-
-/-

Fig. 23

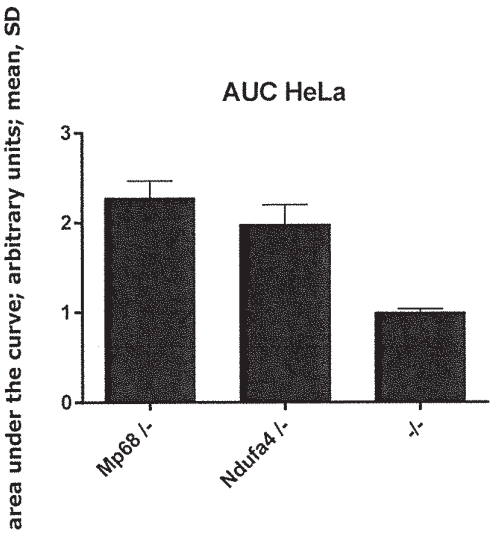

AUC HeLa
area under the curve; arbitrary units; mean, SD
3
2
1
0
Mp68 /-
Ndufa4 /-
-/-

Fig. 24

32L4 – PpLuc(GC) – A64-C30-hSL (R2462)
(SEQ ID NO: 383)

GGGAGAAAGCUUGAGG*AUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA*
*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*
*CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAA*GACUAGUAGAU
CUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGC
CACCAGAAUU

Fig. 25

PpLuc(GC) – morn2– A64 - C30 - hSL (R3948)
(SEQ ID NO: 384)

GGGAGAAAGCUUGAGG*AUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA*
*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*
*CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAA*GACUAGUACCU
GCUGCCUUAACGCUGAGAUGUGGCCUCUGCAACCCCCCUUAGGCAAAGCAACUGAACCUU
CUGCUAAAGUGACCUGCCCUCUUCCGUAAGUCCAAUAAAGUUGUCAUGCACCCAGAUCUA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCAC
CAGAAUU

Fig. 26

PpLuc(GC) – ndufa1– A64 - C30 - hSL (R4043)
(SEQ ID NO: 385)

GGGAGAAAGCUUGAGG*AUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA*
*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*
*CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAA*GACUAGUGGAA
GCAUUUUCCUGGCUGAUUAAAAGAAAUUACUCAGCUAUGGUCAUCUGUUCCUGUUAGAAG
GCUAUGCAGCAUAUUAUAUACUAUGCGCAUGUUAUGAAAUGCAUAAUAAAAAAUUUUAAA
AAAUCUAAAAGAUCUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGG
CUCUUUUCAGAGCCACCAGAAUU

Fig. 27

PpLuc(GC) – NDUFA1– A64 - C30 - hSL (R3948)
(SEQ ID NO: 386)

GGGAGAAAGCUUGAGG*AUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUA*
*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*
*CCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAA*GACUAGUGGAA
GCAUUUUCCUGAUUGAUGAAAAAAAUAACUCAGUUAUGGCCAUCUACCCCUGCUAGAAGG
UUACAGUGUAUUAUGUAGCAUGCAAUGUGUUAUGUAGUGCUUAAUAAAAAUAAAAUGAAA
AAAAUGCAGAUCUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCU
CUUUUCAGAGCCACCAGAAUU

Fig. 28

Mp68 - PpLuc(GC) – A64 - C30 - hSL (R3954)
(SEQ ID NO: 387)

GGGCUUUCCCAUUCUGUAGCAGAAUUUGGUGUUGCCUGUGGUCUUGGUCCCGCGGAGAAG
CUUGAGG*AUGGAGGACGCCAAGAACAUCAAGAAGGGCCCGGCGCCCUUCUACCCGCUGGA*
*GGACGGGACCGCCGGCGAGCAGCUCCACAAGGCCAUGAAGCGGUACGCCCUGGUGCCGGG*
*CACGAUCGCCUUCACCGACGCCCACAUCGAGGUCGACAUCACCUACGCGGAGUACUUCGA*
*GAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCGGUACGGCCUGAACACCAACCACCGGAU*
*CGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUUCAUGCCGGUGCUGGGCGCCCUCUUCAU*
*CGGCGUGGCCGUCGCCCCGGCGAACGACAUCUACAACGAGCGGGAGCUGCUGAACAGCAU*
*GGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAGCAAGAAGGGCCUGCAGAAGAUCCUGAA*
*CGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAUCAUCAUCAUGGACAGCAAGACCGACUA*
*CCAGGGCUUCCAGUCGAUGUACACGUUCGUGACCAGCCACCUCCCGCCGGGCUUCAACGA*
*GUACGACUUCGUCCCGGAGAGCUUCGACCGGGACAAGACCAUCGCCCUGAUCAUGAACAG*
*CAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGCCCUGCCGCACCGGACCGCCUGCGUGCG*
*CUUCUCGCACGCCCGGGACCCCAUCUUCGGCAACCAGAUCAUCCCGGACACCGCCAUCCU*
*GAGCGUGGUGCCGUUCCACCACGGCUUCGGCAUGUUCACGACCCUGGGCUACCUCAUCUG*
*CGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGAGGAGGAGCUGUUCCUGCGGAGCCUGCA*
*GGACUACAAGAUCCAGAGCGCGCUGCUCGUGCCGACCCUGUUCAGCUUCUUCGCCAAGAG*
*CACCCUGAUCGACAAGUACGACCUGUCGAACCUGCACGAGAUCGCCAGCGGGGGCGCCCC*
*GCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAAGCGGUUCCACCUCCCGGGCAUCCGCCA*
*GGGCUACGGCCUGACCGAGACCACGAGCGCGAUCCUGAUCACCCCCGAGGGGGACGACAA*
*GCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUUCGAGGCCAAGGUGGUGGACCUGGACAC*
*CGGCAAGACCCUGGGCGUGAACCAGCGGGGCGAGCUGUGCGUGCGGGGGCCGAUGAUCAU*
*GAGCGGCUACGUGAACAACCCGGAGGCCACCAACGCCCUCAUCGACAAGGACGGCUGGCU*
*GCACAGCGGCGACAUCGCCUACUGGGACGAGGACGAGCACUUCUUCAUCGUCGACCGGCU*
*GAAGUCGCUGAUCAAGUACAAGGGCUACCAGGUGGCGCCGGCCGAGCUGGAGAGCAUCCU*
*GCUCCAGCACCCCAACAUCUUCGACGCCGGCGUGGCCGGGCUGCCGGACGACGACGCCGG*
*CGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCACGGCAAGACCAUGACGGAGAAGGAGAU*
*CGUCGACUACGUGGCCAGCCAGGUGACCACCGCCAAGAAGCUGCGGGGCGGCGUGGUGUU*
*CGUGGACGAGGUCCCGAAGGGCCUGACCGGGAAGCUCGACGCCCGGAAGAUCCGCGAGAU*
*CCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGCCGUGUAA*GACUAGUAGAUCUAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAUGC
AUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCAAAGGCUCUUUUCAGAGCCACCAGAAU
U

Fig. 29

Ndufa4 - PpLuc(GC) – A64 - C30 - hSL (R3951)
(SEQ ID NO: 388)

GGGGUCCGCUCAGCCAGGUUGCAGAAGCGGCUUAGCGUGUGUCCUAAUCUUCUCUCUGCG
UGUAGGUAGGCCUGUGCCGCAAACAAGCUUGAGG*AUGGAGGACGCCAAGAACAUCAAGAA*
*GGGCCCGGCGCCCUUCUACCCGCUGGAGGACGGGACCGCCGGCGAGCAGCUCCACAAGGC*
*CAUGAAGCGGUACGCCCUGGUGCCGGGCACGAUCGCCUUCACCGACGCCCACAUCGAGGU*
*CGACAUCACCUACGCGGAGUACUUCGAGAUGAGCGUGCGCCUGGCCGAGGCCAUGAAGCG*
*GUACGGCCUGAACACCAACCACCGGAUCGUGGUGUGCUCGGAGAACAGCCUGCAGUUCUU*
*CAUGCCGGUGCUGGGCGCCCUCUUCAUCGGCGUGGCCGUCGCCCCGGCGAACGACAUCUA*
*CAACGAGCGGGAGCUGCUGAACAGCAUGGGGAUCAGCCAGCCGACCGUGGUGUUCGUGAG*
*CAAGAAGGGCCUGCAGAAGAUCCUGAACGUGCAGAAGAAGCUGCCCAUCAUCCAGAAGAU*
*CAUCAUCAUGGACAGCAAGACCGACUACCAGGGCUUCCAGUCGAUGUACACGUUCGUGAC*
*CAGCCACCUCCCGCCGGGCUUCAACGAGUACGACUUCGUCCCGGAGAGCUUCGACCGGGA*
*CAAGACCAUCGCCCUGAUCAUGAACAGCAGCGGCAGCACCGGCCUGCCGAAGGGGGUGGC*
*CCUGCCGCACCGGACCGCCUGCGUGCGCUUCUCGCACGCCCGGGACCCCAUCUUCGGCAA*
*CCAGAUCAUCCCCGGACACCGCCAUCCUGAGCGUGGUGCCGUUCCACCACGGCUUCGGCAU*
*GUUCACGACCCUGGGCUACCUCAUCUGCGGCUUCCGGGUGGUCCUGAUGUACCGGUUCGA*
*GGAGGAGCUGUUCCUGCGGAGCCUGCAGGACUACAAGAUCCAGAGCGCGCUGCUCGUGCC*
*GACCCUGUUCAGCUUCUUCGCCAAGAGCACCCUGAUCGACAAGUACGACCUGUCGAACCU*
*GCACGAGAUCGCCAGCGGGGGCGCCCCGCUGAGCAAGGAGGUGGGCGAGGCCGUGGCCAA*
*GCGGUUCCACCUCCCGGGCAUCCGCCAGGGCUACGGCCUGACCGAGACCACGAGCGCGAU*
*CCUGAUCACCCCCGAGGGGGACGACAAGCCGGGCGCCGUGGGCAAGGUGGUCCCGUUCUU*
*CGAGGCCAAGGUGGUGGACCUGGACACCGGCAAGACCCUGGGCGUGAACCAGCGGGGCGA*
*GCUGUGCGUGCGGGGGCCGAUGAUCAUGAGCGGCUACGUGAACAACCCGGAGGCCACCAA*
*CGCCCUCAUCGACAAGGACGGCUGGCUGCACAGCGGCGACAUCGCCUACUGGGACGAGGA*
*CGAGCACUUCUUCAUCGUCGACCGGCUGAAGUCGCUGAUCAAGUACAAGGGCUACCAGGU*
*GGCGCCGGCCGAGCUGGAGAGCAUCCUGCUCCAGCACCCCAACAUCUUCGACGCCGGCGU*
*GGCCGGGCUGCCGGACGACGACGCCGGCGAGCUGCCGGCCGCGGUGGUGGUGCUGGAGCA*
*CGGCAAGACCAUGACGGAGAAGGAGAUCGUCGACUACGUGGCCAGCCAGGUGACCACCGC*
*CAAGAAGCUGCGGGGCGGCGUGGUGUUCGUGGACGAGGUCCCGAAGGGCCUGACCGGGAA*
*GCUCGACGCCCGGAAGAUCCGCGAGAUCCUGAUCAAGGCCAAGAAGGGCGGCAAGAUCGC*
*CGUGUAA*GACUAGUAGAUCUAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAUGCAUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
AAAGGCUCUUUUCAGAGCCACCAGAAUU

Fig. 30