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SEQUENCE LISTING

<110> CureVac GmbH
<120> Method for increasing expression of RNA-encoded proteins
<130> CU01P139W01
<160> 64
<170> PatentIn version 3.5
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 <400> 20
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<210> 44
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<220>
 <223> mRNA sequence ppluc(gc) - muag - a64 - c30 - histoneSL
 <400> 46
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 cccgcuggag gacgggaccg ccggcgagca gcuccacaag gccaugaagc gguacgcccu 120
 ggugccgggc acgaucgccu ucaccgacgc ccacaucgag gucgacauca ccuacgcgga 180
 guacuucgag augagcgugc gccuggccga ggccaugaag cgguacggcc ugaacaccaa 240
 ccaccggauc guggugugcu cggagaacag ccugcaguuc uucaugccgg ugcugggcgc 300
 ccucuuauc ggcguggccg ucgccccggc gaacgacauc uacaacgagc gggagcugcu 360
 gaacagcaug gggauacagc agccgaccgu gguguucgug agcaagaagg gccugcagaa 420
 gauccugaac gugcagaaga agcugcccau cauccagaag aucaucauca uggacagcaa 480
 gaccgacuac cagggcuucc agucgaugua cacguucgug accagccacc ucccgccggg 540
 cuucaacgag uacgacuucg ucccggagag cuucgaccgg gacaagacca ucgcccugau 600
 caugaacagc agcggcagca ccggccugcc gaagggggug gccugccgc accggaccgc 660
 cugcgugcgc uucucgcacg cccgggaccc caucuucggc aaccagauca ucccggacac 720
 cgccauccug agcguuggug cguuccacca cggcuucggc auguucacga cccugggcua 780
 ccucaucugc ggcuuccggg ugguccugau guaccgguuc gaggaggagc uguuccugcg 840
 gagccugcag gacuacaaga uccagagcgc gcugcucgug ccgaccugug ucagcuucuu 900
 cgccaagagc acccugaucg acaaguacga ccugucgaac cugcacgaga ucgccagcgg 960
 gggcgccccg cugagcaagg agguuggcga ggccguggcc aagcggguucc accucccggg 1020
 cauccgccag ggcuaaggcc ugaccgagac cacgagcgcg auccugauca ccccccaggg 1080
 ggacgacaag ccgggcgccc ugaggcaaggu ggucccgguuc uucgaggcca agguuggugga 1140
 ccuggacacc ggcaagaccc ugggcgugaa ccagcggggc gagcugugcg ugcggggggc 1200

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gaugaucaug agcggcuacg ugaacaaccc ggaggccacc aacgcccuca ucgacaagga	1260
cggcuggcug cacagcggcg acaucgccua cugggacgag gacgagcacu ucuucaucgu	1320
cgaccggcug aagucgcuga ucaaguacaa gggcuaccag guggcgccgg ccgagcugga	1380
gagcauccug cuccagcacc ccaacaucuu cgacgccggc guggccgggc ugccggacga	1440
cgacgccggc gagcugccgg ccgcgguugu ggugcuggag cacggcaaga ccaugacgga	1500
gaaggagauc gucgacuacg uggccagcca ggugaccacc gccaaagaagc ugcggggcg	1560
cgugguguuc guggacgagg ucccgaagg ccugaccggg aagcucgacg cccggaagau	1620
ccgcgagauc cugaucaagg ccaagaagg cggaagauc gccguguaag acuaguuaa	1680
agacugacua gcccgauggg ccucccaacg ggccuccuc cccuccuugc accgagauua	1740
auaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa	1800
aaaaaavgca uccccccccc cccccccccc cccccccccc ccaaaggcuc uuuucagagc	1860
caccagaauu	1870

<210> 47
 <211> 1712
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> PpLuc(wt) - A30

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ccuuuagagg auggaaccgc uggagagcaa cugcauaagg cuaugaagag auacgcccug	120
guuccuggaa caauugcuuu uacagaugca cauaucgagg ugaacaucac guacgcggaa	180
uacuucgaaa uguccguucg guuggcagaa gcuaugaaac gauaugggcu gaauacaaa	240
cacagaauucg ucguaugcag ugaaaacucu cuucaauucu uuaugccggg guugggcgcg	300
uuuuuuuucg gaguugcagu ugcgcccgcg aacgacauuu auaaugaacg ugaauugcuc	360
aacaguauga acauuucgca gccuaccgua guguuuguuu ccaaaaaggg guugcaaaaa	420
auuuugaacg ugcaaaaaaa auuaccaaua auccagaaaa uuauuaucau ggauucuaaa	480
acggauuacc agggauuua gucgauguac acguucguca caucucaucu accuccggg	540
uuuaaугaaу acgauuuugu accagagucc uuugaucgug acaaaacaau ugcacugaua	600
augaauagcu cuggaucuac uggguuaccu aaggguugug cccuuccgca uagaacugcc	660
ugcgucagau ucucgcaugc cagagaucuu auuuuuggca aucaaaucan uccggauacu	720
gcgauuuuaa guguguuucc auuccaucac gguuuuggaa uguuuacuac acucggauau	780
uugauaugug gauuucgagu cgucuuuauг uauagauuug aagaagagcu guuuuuacga	840
ucccuucagg auuacaaaau ucaaagugcg uugcuaguac caaccuauu uucauucuuc	900
gccaaaagca cucugauuga caauuacgau uuaucuaauu uacacgaaau ugcuucuggg	960
ggcgcaccuc uuucgaaaga agucggggaa gcgguugcaa aacgcuucca ucuuccaggg	1020

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auacgacaag	gauaugggcu	cacugagacu	acaucagcua	uucugauuac	acccgagggg	1080
gaugauaaac	cgggcgcggu	cgguaaaguu	guuccauuuu	uugaagcgaa	gguuugggau	1140
cuggauaccg	ggaaaacgcu	gggcguuaau	cagagaggcg	aauuauuguu	cagaggaccu	1200
augauuaugu	ccgguuuugu	aaacaauccg	gaagcgacca	acgccuugau	ugacaaggau	1260
ggauggcuac	auucuggaga	cauagcuuac	ugggacgaag	acgaacacuu	cuucauaguu	1320
gaccgcuuga	agucuuuaau	uaauuacaaa	ggauaucagg	uggcccccgc	ugaauuggaa	1380
ucgauauugu	uacaacaccc	caacaucuuc	gacgcgggcg	uggcaggucu	ucccgacgau	1440
gacgccggug	aacuucccg	cgccguuguu	guuuuggagc	acggaaagac	gaugacggaa	1500
aaagagaucg	uggauuacgu	cgccagucua	guaacaaccg	cgaaaaaguu	gcgcggagga	1560
guuguguuuu	uggacgaagu	accgaaaggu	cuuaccggaa	aacucgacgc	aagaaaaauc	1620
agagagaucc	ucauaaaggc	caagaagggc	ggaaagucca	aaauugaggg	acuaguagau	1680
cuaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aa			1712

<210> 48
 <211> 1746
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> R3454: PpLuc(wt) - A64

<400> 48	
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ccuuuagagg	auggaaccgc uggagagcaa cugcauaagg cuaugaagag auacgcccug
guuccuggaa	caauugcuuu uacagaugca cauauagagg ugaacaucau guacgcggaa
uacuucgaaa	uguccguucg guuggcagaa gcuaugaaac gauaugggcu gaauacaaa
cacagaaucc	ucguauagcag ugaaaacucu cuucaauucu uuaugccggg guugggcgcg
uuuuuuuucg	gaguugcagu ugcgcccgcg aacgacauuu auaaugaacg ugaauugcuc
aacaguauga	acauuucgca gccuaccgua guguuuguuu ccaaaaaggg guugcaaaaa
auuuugaacg	ugcaaaaaaa auuaccaaua auccagaaaa uuauuaucau ggauucuaaa
acggauuacc	agggauuuaa gucgauguac acguucguca caucucaucu accucccggu
uuuaauggau	acgauuuugu accagagucc uuugaucgug acaaaacaau ugcacugaua
augaauagcu	cuggaucuac uggguuaccu aaggguuggg cccuuccgca uagaacugcc
ugcgucagau	ucucgcaugc cagagaucuu auuuuuggca aucaaaucuu uccggauacu
gcgauuuuaa	guguuguucc auuccaucac gguuuuggaa uguuuacuac acucggauau
uugauaugug	gauuucgagu cgucuuuauu uauagauuug aagaagagcu guuuuuacga
ucccuucagg	auuacaaaaa ucaagugcg uugcuaguac caaccuauu uucauucuu
gccaaaagca	cucugauuga caaaauacgau uuauucuuuu uacacgaaau ugcuuucggg
ggcgcaccuc	uuucgaaaga agucggggaa gcgguugcaa aacgcuucca ucuuccaggg

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auacgacaag	gauaugggcu	cacugagacu	acaucagcua	uucugauuac	acccgagggg	1080
gaugauaaac	cgggcgcggu	cgguaaaguu	guuccauuuu	uugaagcgaa	ggugugggau	1140
cuggauaccg	ggaaaacgcu	gggcguuaau	cagagaggcg	aaauaugugu	cagaggaccu	1200
augauuaugu	ccgguuaugu	aaacaauccg	gaagcgacca	acgccuugau	ugacaaggau	1260
ggauggcuac	auucuggaga	cauagcuuac	ugggacgaag	acgaacacuu	cuucauaguu	1320
gaccgcuuga	agucuuuaau	uaaaauacaa	ggauaucagg	uggcccccgc	ugaauuggaa	1380
ucgauauugu	uacaacaccc	caacaucuuc	gacgcgggcg	uggcaggucu	ucccgacgau	1440
gacgccggug	aacuucccg	cgccguuguu	guuuuggagc	acggaaagac	gaugacggaa	1500
aaagagaucg	uggauuacgu	cgccagucua	guaacaaccg	cgaaaaaguu	gcgcggagga	1560
guuguguuug	uggacgaagu	accgaaaggu	cuuaccggaa	aacucgacgc	aagaaaaauc	1620
agagagaucc	ucauaaaggc	caagaagggc	ggaaagucca	aaugugagg	acuaguagau	1680
cuaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1740
aaaaaa						1746

<210> 49
 <211> 1810
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> R2462: PpLuc(GC)-A64-C30-HistoneSL

<400> 49	
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aggacgcaa	gaacaucaag
aaggggcccg	cgcccuucua
60	
cccgcuggag	gacgggaccg
ccggcgagca	gcuccacaag
gccaugaagc	gguacgcccu
120	
ggugccgggc	acgaucgccu
ucaccgacgc	ccacaucgag
gucgacauca	ccuacgcgga
180	
guacuucgag	augagcgugc
gccuggccga	ggccaugaag
cgguacggcc	ugaacaccaa
240	
ccaccggau	cugugugcu
cggagaacag	ccugcaguuc
uucaugccgg	ugcugggcgc
300	
ccucuucac	ggcguggccg
ucgccccggc	gaacgacauc
uacaacgagc	gggagcugcu
360	
gaacagcaug	gggaucagcc
agccgaccgu	gguguucgug
agcaagaagg	gccugcagaa
420	
gauccugaac	gugcagaaga
agcugcccau	cauccagaag
aucaucauca	uggacagcaa
480	
gaccgacuac	caggguuucc
agucgaugua	cacguucgug
accagccacc	ucccgccggg
540	
cuucaacgag	uacgacuucg
ucccgagag	cuucgaccgg
gacaagacca	ucgcccugau
600	
caugaacagc	agcggcagca
ccggccugcc	gaagggggug
gcccugccgc	accggaccgc
660	
cugcgugcgc	uucucgcacg
cccgggaccc	caucuucggc
aaccagauca	ucccgacac
720	
cgccauccug	agcguggugc
cguuccacca	cgguucggc
auguucacga	cccugggcua
780	
ccucaucugc	ggcuuccggg
ugguccugau	guaccggguu
gaggaggagc	uguuccugcg
840	
gagccugcag	gacuacaaga
uccagagcgc	gcugcucgug
ccgaccugug	ucagcuucuu
900	
cgccaagagc	accugaucg
acaaguacga	ccugucgaac
cugcacgaga	ucgccagcgg
960	

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gggcgccccg	cugagcaagg	aggugggcca	ggccguggcc	aagcgguucc	accucccg	1020
cauccgccag	ggcuacggcc	ugaccgagac	cacgagcgcg	auccugauca	cccccgagg	1080
ggacgacaag	ccgggcgccg	ugggcaaggu	ggucccgguu	uucgaggcca	agguggugga	1140
ccuggacacc	ggcaagaccc	ugggcgugaa	ccagcggggc	gagcugugcg	ugcgggggcc	1200
gaugaucaug	agcggcuacg	ugaacaaccc	ggaggccacc	aacgcccua	ucgacaagga	1260
cggcuggcug	cacagcgggc	acaucgccua	cugggacgag	gacgagcacu	ucuucaucgu	1320
cgaccggcug	aagucgcuga	ucaaguacaa	gggcuaccag	guggcgccgg	ccgagcugga	1380
gagcauccug	cuccagcacc	ccaacaucuu	cgacgccggc	guggccgggc	ugccggacga	1440
cgacgccggc	gagcugccgg	ccgcgguggu	ggugcuggag	cacggcaaga	ccaugacgga	1500
gaaggagauc	gucgacuacg	uggccagcca	ggugaccacc	gccaagaagc	ugcggggagg	1560
cgguguguuc	guggacgagg	ucccgagggg	ccugaccggg	aagcucgacg	cccggagau	1620
ccgcgagauc	cugaucaagg	ccaagaaggg	cggcaagauc	gccguguaag	acuaguagau	1680
cuaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1740
aaaaaagca	cccccccccc	cccccccccc	cccccccccc	ccaaaggcuc	uuuucagagc	1800
caccagaauu						1810

<210> 50
 <211> 1846
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> R1256: PpLuc(GC)-muag-A64-C30

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aggacgcca	gaacauca
aagggccc	cgcccuuc
60	
cccgcuggag	gacgggacc
ccggcgagc	gcuccaca
gccaugaag	gguacgccc
120	
ggugccgggc	acgaucgcu
ucaccgacg	ccacaucg
gucgacauca	ccuacgcgg
180	
guacuucgag	augagcgug
gccuggccga	ggccauga
cgguacggcc	ugaacacaa
240	
ccaccggauc	guggugugc
cggagaacag	ccugcagu
uucaugccg	ugcuggg
300	
ccucuucauc	ggcguggcc
ucgccccgc	gaacgaca
uacaacgag	gggagcug
360	
gaacagcaug	gggaucagg
agccgaccgu	gguguucg
agcaagaag	gccugcaga
420	
gauccugaac	gugcagaag
agcugcccau	cauccaga
aucaucauca	uggacagca
480	
gaccgacuac	caggguucc
agucgaugua	cacguucg
accagccacc	ucccgccgg
540	
cuucaacgag	uacgacuuc
ucccgagag	cuucgacc
gacaagacca	ucgcccug
600	
caugaacagc	agcggcagc
ccggccugcc	gaaggggg
gcccugccgc	accggacc
660	
cugcgugcgc	uucucgcac
cccgggaccc	caucuucgg
aaccagauca	ucccgga
720	
cgccauccug	agcguugg
cguuccacca	cgguucgg
auguucacga	cccugggc
780	
ccucaucugc	ggcuuccgg
ugguccugau	guaccggu
gaggaggagc	uguuccug
840	

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gagccugcag	gacuacaaga	uccagagcgc	gcugcucgug	ccgacccugu	ucagcuucuu	900
cgccaagagc	acccugaucg	acaaguacga	ccugucgaac	cugcacgaga	ucgccagcgg	960
ggcgccccg	cugagcaagg	aggugggcga	ggccguggcc	aagcgguucc	accucccggg	1020
cauccgccag	ggcuacggcc	ugaccgagac	cacgagcgcg	auccugauca	cccccgaggg	1080
ggacgacaag	ccgggcgccg	ugggcaaggu	ggucccgguu	uucgaggcca	agguggugga	1140
ccuggacacc	ggcaagaccc	ugggcgugaa	ccagcggggc	gagcugugcg	ugcggggggc	1200
gaugaucaug	agcggcuacg	ugaacaaccc	ggaggccacc	aacgcccuca	ucgacaagga	1260
cggcuggcug	cacagcggcg	acaucgccua	cugggacgag	gacgagcacu	ucuucaucgu	1320
cgaccggcug	aagucgcuga	ucaaguacaa	gggcuaccag	guggcgccgg	ccgagcugga	1380
gagcauccug	cuccagcacc	ccaacaucuu	cgacgccggc	guggccgggc	ugccggacga	1440
cgacgccggc	gagcugccgg	ccgcgguggu	ggugcuggag	cacggcaaga	ccaugacgga	1500
gaaggagauc	gucgacuacg	uggccagcca	ggugaccacc	gccaagaagc	ugcggggcg	1560
cgugguguuc	guggacgagg	ucccgaaggg	ccugaccggg	aagcucgacg	cccggaagau	1620
ccgcgagauc	cugaucaagg	ccaagaaggg	cggcaagauc	gccguguaag	acuaguuaa	1680
agacugacua	gcccgauggg	ccucccaacg	ggccuccuc	cccuccuugc	accgagauua	1740
auaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1800
aaaaaavgca	cccccccccc	cccccccccc	cccccccccc	cucuag		1846

<210> 51
 <211> 1870
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> R2393: PpLuc(nat)-muag-A64-C30-HistoneSL

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ccuuuagagg	auggaaccgc uggagagcaa cugcauaagg cuaugaagag auacgccug	120
guuccuggaa	caauugcuuu uacagaugca cauaucgagg ugaacaucac guacgcggaa	180
uacuucgaaa	uguccguucg guuggcagaa gcuauaagaa gauaugggcu gaauacaaau	240
cacagaauucg	ucguaugcag ugaaaacucu cuucaauucu uuaugccggg guugggcgcg	300
uuauuuauucg	gaguugcagu ugcgcccgcg aacgacauuu auaaugaacg ugaauugcuc	360
aacaguauga	acauuucgca gccuaccgua guguuuguuu ccaaaaaggg guugcaaaaa	420
auuuugaacg	ugcaaaaaaa auuaccaaua auccagaaaa uuauuaucau ggauucuaaa	480
acggauuacc	agggauuua gucgauguac acguucguca caucucaucu accucccggg	540
uuuaaugaau	acgauuuugu accagaguuc uuugaucgug acaaaacaau ugcacugaua	600
augaauagcu	cuggaucuac uggguuaccu aaggguugug cccuuccgca uagaacugcc	660
ugcgucagau	ucucgcaugc cagagaucuu auuuuuggca aucaaaucan uccggauacu	720

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gcgauuuuaa	guguuguucc	auuccaucac	gguuuuggaa	uguuuacuac	acucggauau	780
uugauaugug	gauuucgagu	cgucuuuaug	uauagauuug	aagaagagcu	guuuuuacga	840
ucccuucagg	auuacaaaau	ucaaaugucg	uugcuaguac	caacccuauu	uucauucuuc	900
gccaaaagca	cucugauuga	caaauacgau	uuaucuauuu	uacacgaaau	ugcuucuggg	960
ggcgcaccuc	uuucgaaaga	agucggggaa	gcgguugcaa	aacgcuucca	ucuuccaggg	1020
auacgacaag	gauaugggcu	cacugagacu	acaucagcua	uucugauuac	acccgagggg	1080
gaugauaaac	cgggcgcggu	cgguaaaguu	guuccauuuu	uugaagcgaa	gguuguggau	1140
cuggauaccg	ggaaaacgcu	gggcguuaau	cagagaggcg	aaauaugugu	cagaggaccu	1200
augauuaugu	ccgguuauugu	aaacaauccg	gaagcgacca	acgccuugau	ugacaaggau	1260
ggauggcuac	auucuggaga	cauagcuuac	ugggacgaag	acgaacacuu	cuucauaguu	1320
gaccgcuuga	agucuuuaau	uaaaauacaaa	ggauaucagg	uggcccccgc	ugaauuggaa	1380
ucgauauugu	uacaacaccc	caacaucuuc	gacgcggggc	uggcaggucu	ucccgacgau	1440
gacgccggug	aacuucccg	cgccguuguu	guuuuggagc	acggaaagac	gaugacggaa	1500
aaagagaucg	uggauuacgu	cgccagucua	guaacaaccg	cgaaaaaguu	gcgcggagga	1560
guuguguuug	uggacgaagu	accgaaaggu	cuuaccggaa	aacucgacgc	aagaaaaauc	1620
agagagaucc	ucauaaaggc	caagaagggc	ggaaagucca	aaauugugagg	acuaguuaua	1680
agacugacua	gcccgauggg	ccucccaacg	ggcccuccuc	cccuccuugc	accgagauua	1740
auaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1800
aaaaaaugca	cccccccccc	cccccccccc	cccccccccc	ccaaaggcuc	uuuucagagc	1860
caccagaauu						1870

<210> 52
 <211> 1792
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> R2403: RAV-G(GC)-muag-A64-C30-histoneSL

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cucugcuucg	gcaaguuccc caucuacacc auccccgaca agcugggggc guggagcccc 120
aucgacaucc	accaccuguc cugccccaac aaccucgugg ucgaggacga gggcugcacc 180
aaccugagcg	gguuuccua cauggagcug aaggugggcu acaucagcgc caucaagaug 240
aacggguuca	cgugcaccgg cguggucacc gaggcggaga ccuacacgaa cuucgugggc 300
uacgugacca	ccaccuucua gcggaagcac uuccgcccc a gccggacgc cugccggggc 360
gccuacaacu	ggaagauggc cggggacccc cgcuacgagg aguuccucca caaccccuac 420
cccgacuacc	acuggcugcg gaccgucaag accaccaagg agagccuggu gaucaucucc 480
ccgagcgugg	cggaccucga ccccuacgac cgcucccugc acagccgggu cuuccccggc 540

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gggaacugcu	ccggcguggc	cgugagcucc	acguacugca	gcaccaacca	cgacuacacc	600
aucuggaugc	ccgagaaccc	gcgccugggg	auguccugcg	acaucuucac	caacagccgg	660
ggcaagcgcg	ccuccaaggg	cagcgagacg	ugcgguuucg	ucgacgagcg	gggccucuac	720
aagucccuga	agggggccug	caagcugaag	cucugcgggc	ugcuggggccu	gcgccucaug	780
gacgggaccu	ggguggcgau	gcagaccagc	aacgagacca	aguggugccc	ccccggccag	840
cuggucaacc	ugcacgacuu	ccggagcgac	gagaucgagc	accucguggu	ggaggagcug	900
gucaagaagc	gcgaggagug	ccuggacgcc	cucgagucca	ucaugacgac	caagagcgug	960
uccuuccggc	gccugagcca	ccugcggaag	cucgugccc	gguucggcaa	ggccuacacc	1020
aucuuaaca	agaccugau	ggaggccgac	gcccacuaca	aguccguccg	cacguggaac	1080
gagaucaucc	cgagcaaggg	gugccugcg	gugggcggcc	gcugccaccc	ccacgucaac	1140
gggguguucu	ucaacggcau	cauccucggg	cccgcggca	acgugcugau	ccccgagaug	1200
caguccagcc	ugcuccagca	gcacauaggag	cugcuggucu	ccagcgugau	cccgcucaug	1260
cacccccugg	cggaccccuc	caccguguuc	aagaacgggg	acgaggccga	ggacuucguc	1320
gaggugcacc	ugcccgcgcu	gcacgagcgg	aucagcggcg	ucgaccucgg	ccugccgaac	1380
ugggggaagu	acgugcugcu	cuccgccggc	gcccugaccg	cccugaugcu	gaucaucuuc	1440
cucaugaccu	gcuggcgccg	ggugaaccgg	agcgagccca	cgcagcaca	ccugcgcggg	1500
accggccggg	aggucuccgu	gaccccgag	agcgggaaga	ucaucuccag	cugggagucc	1560
uacaagagcg	gcggcgagac	cgggcuguga	ggacuaguua	uaagacugac	uagcccgaug	1620
ggccucccaa	cgggcccucc	uccccuccuu	gcaccgagau	uaauaaaaaa	aaaaaaaaaa	1680
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	cauccccccc	1740
cccccccccc	cccccccccc	ccccaaaggc	ucuuuucaga	gccaccagaa	uu	1792

<210> 53
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 <212> RNA
 <213> Artificial sequence

<220>
 <223> R3513: EPO (wt)-A30

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cgaguucugg	agagguacau cuuagaggcc
gcagaagguc	ccagacugag ugaaaaauuu
gcuuggaaaa	gaauggaggu ggaagaacag
cucucagaag	ccauccugca ggcccaggcc
acccuucagc	uucauauaga caaagccauc
cgguuacugg	gagcucagaa ggaauugaug
	ugccuccag auaccacccc
	accugcucca
	60
	120
	180
	240
	300
	360
	420
	480

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cuccgaacac ucacagugga uacuuucugc aagcucuucc gggucuacgc caacuuccuc	540
cgggggaaac ugaagcugua cacgggagag gucugcagga gaggggacag gugaccacua	600
guagaucuaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa	638

<210> 54
 <211> 981
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> R3135: HSD17B4-EPO (GC)-albumin7-A64-C30-histoneSL

<400> 54 gggucccgca gucggcgucc agcggcucug cuuguucgug ugugugucgu ugcaggccuu	60
auucaagcuu accaugggcg ugcccagagcg gccgaccucg cuccugcugc ucagccugcu	120
gcucaucccc cuggggcugc ccguccucug ccccccccg cgccugaucu gcgacucccg	180
ggugcuggag cgcuacauc ucgaggccaa ggaggcggag aacgugacca ugggcugcgc	240
cgagggggccc cggcugagcg agaacaucac gguccccgac accaagguga acuuucacgc	300
cuggaagcgc auggaggugg aggagcaggc caucgagguc uggcagggcc uguccuccu	360
gagcgaggcc auccugcagg cgcaggcccu ccuggccaac uccagccagc ccccgagac	420
acugcagcuc cacaucgaca aggccaucuc cgggcugcgg agccugaccu cccuccugcg	480
cgugcugggc gcgcagaagg agcucaugag cccgcccgc acgaccccc cggcccgcu	540
gcggaccucg accguggaca cguucugcaa gcucuuccgc gucuacgcca acuuuccugc	600
gggcaagcug aagcucuaca ccggggaggu gugccgccgg ggcgaccgcu gaccacuagu	660
gcaucacauu uaaaagcauc ucagccuacc augagaauaa gagaaagaaa augaagauca	720
auagcuuauu caucucuuuu ucuuuuucgu ugguguuaag ccaacacccu gucuaaaaa	780
cauaaaauuc uuuuaucauu uugccucuuu ucucugugcu ucaauuaaua aaaaauggaa	840
agaaccuaga ucuaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa	900
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cuuuucagag ccaccagaau u	981

<210> 55
 <211> 42
 <212> DNA
 <213> Homo sapiens

<400> 55 ggcgctgcct acggaggtgg cagccatctc cttctcggca tc	42
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<210> 56
 <211> 75
 <212> DNA
 <213> Homo sapiens

<400> 56 gcggctcggc cattttgtcc cagtcagtcc ggaggctgcg gctgcagaag taccgcctgc	60
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ggagtaactg caaag

75

<210> 57
 <211> 186
 <212> DNA
 <213> Homo sapiens

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 ataaatttct ttaatcattt tgcctctttt ctctgtgctt caattaataa aaaatggaaa 180
 gaatct 186

<210> 58
 <211> 186
 <212> DNA
 <213> Homo sapiens

<400> 58
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 ataaatttct ttaatcattt tgcctctttt ctctgtgctt caattaataa aaaatggaaa 180
 gaacct 186

<210> 59
 <211> 110
 <212> DNA
 <213> Homo sapiens

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<210> 60
 <211> 108
 <212> DNA
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<210> 61
 <211> 132
 <212> DNA
 <213> Homo sapiens

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 tattttcatt gc 132

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<210> 62
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Center, alpha-complex-binding portion of the 3'UTR of an
alpha-globin gene

<400> 62
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44

<210> 63
<211> 574
<212> PRT
<213> respiratory syncytial virus

<400> 63

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Ala Val Thr Phe Cys Phe Ala Ser Ser Gln Asn Ile Thr Glu Glu Phe
20 25 30

Tyr Gln Ser Thr Cys Ser Ala Val Ser Lys Gly Tyr Leu Ser Ala Leu
35 40 45

Arg Thr Gly Trp Tyr Thr Ser Val Ile Thr Ile Glu Leu Ser Asn Ile
50 55 60

Lys Glu Asn Lys Cys Asn Gly Thr Asp Ala Lys Val Lys Leu Ile Asn
65 70 75 80

Gln Glu Leu Asp Lys Tyr Lys Asn Ala Val Thr Glu Leu Gln Leu Leu
85 90 95

Met Gln Ser Thr Thr Ala Ala Asn Asn Arg Ala Arg Arg Glu Leu Pro
100 105 110

Arg Phe Met Asn Tyr Thr Leu Asn Asn Thr Lys Lys Thr Asn Val Thr
115 120 125

Leu Ser Lys Lys Arg Lys Arg Arg Phe Leu Gly Phe Leu Leu Gly Val
130 135 140

Gly Ser Ala Ile Ala Ser Gly Ile Ala Val Ser Lys Val Leu His Leu
145 150 155 160

Glu Gly Glu Val Asn Lys Ile Lys Ser Ala Leu Leu Ser Thr Asn Lys
165 170 175

Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val
180 185 190

Leu Asp Leu Lys Asn Tyr Ile Asp Lys Gln Leu Leu Pro Ile Val Asn
 195 200 205
 Lys Gln Ser Cys Arg Ile Ser Asn Ile Glu Thr Val Ile Glu Phe Gln
 210 215 220
 Gln Lys Asn Asn Arg Leu Leu Glu Ile Thr Arg Glu Phe Ser Val Asn
 225 230 235 240
 Ala Gly Val Thr Thr Pro Val Ser Thr Tyr Met Leu Thr Asn Ser Glu
 245 250 255
 Leu Leu Ser Leu Ile Asn Asp Met Pro Ile Thr Asn Asp Gln Lys Lys
 260 265 270
 Leu Met Ser Asn Asn Val Gln Ile Val Arg Gln Gln Ser Tyr Ser Ile
 275 280 285
 Met Ser Ile Ile Lys Glu Glu Val Leu Ala Tyr Val Val Gln Leu Pro
 290 295 300
 Leu Tyr Gly Val Ile Asp Thr Pro Cys Trp Lys Leu His Thr Ser Pro
 305 310 315 320
 Leu Cys Thr Thr Asn Thr Lys Glu Gly Ser Asn Ile Cys Leu Thr Arg
 325 330 335
 Thr Asp Arg Gly Trp Tyr Cys Asp Asn Ala Gly Ser Val Ser Phe Phe
 340 345 350
 Pro Gln Ala Glu Thr Cys Lys Val Gln Ser Asn Arg Val Phe Cys Asp
 355 360 365
 Thr Met Asn Ser Leu Thr Leu Pro Ser Glu Val Asn Leu Cys Asn Val
 370 375 380
 Asp Ile Phe Asn Pro Lys Tyr Asp Cys Lys Ile Met Thr Ser Lys Thr
 385 390 395 400
 Asp Val Ser Ser Ser Val Ile Thr Ser Leu Gly Ala Ile Val Ser Cys
 405 410 415
 Tyr Gly Lys Thr Lys Cys Thr Ala Ser Asn Lys Asn Arg Gly Ile Ile
 420 425 430
 Lys Thr Phe Ser Asn Gly Cys Asp Tyr Val Ser Asn Lys Gly Val Asp
 435 440 445
 Thr Val Ser Val Gly Asn Thr Leu Tyr Tyr Val Asn Lys Gln Glu Gly
 450 455 460

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Lys Ser Leu Tyr Val Lys Gly Glu Pro Ile Ile Asn Phe Tyr Asp Pro
465 470 475 480

Leu Val Phe Pro Ser Asp Glu Phe Asp Ala Ser Ile Ser Gln Val Asn
485 490 495

Glu Lys Ile Asn Gln Ser Leu Ala Phe Ile Arg Lys Ser Asp Glu Leu
500 505 510

Leu His His Val Asn Ala Gly Lys Ser Thr Thr Asn Ile Met Ile Thr
515 520 525

Thr Ile Ile Ile Val Ile Ile Val Ile Leu Leu Ser Leu Ile Ala Val
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Lys Asp Gln Leu Ser Gly Ile Asn Asn Ile Ala Phe Ser Asn
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<212> RNA
<213> Artificial Sequence

<220>
<223> RSV-F long (GC) R2510

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ccagcuccca gaacaucacc gaggaguucu accagagcac cugcuccgcc gucagcaagg 180
gcuaccuguc cgccuccgg accggguggu acacgagcgu gaucaccauc gagcugucca 240
acaucaggga gaacaagugc aacggcaccg acgcgaaggu gaagcugauc aaccaggagc 300
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ccaacaaccg cgcgcgggcg gagcugccgc gguucaugaa cuacaccug aacaacacca 420
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aggugaacaa gaucaagucc gccuccuga gcaccaacaa ggcggucgug ucccugagca 600
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uccugcccau cgugaacaag caguccugcc ggaucagcaa caucgagacg gucaucgagu 720
uccagcagaa gaacaaccgc cugcucgaga ucacccggga guucagcgug aacgccggcg 780
ugaccacccc cgucuccacg uacaugcuga ccaacagcga gcugcucucc cugaucaacg 840
acaugcccau caccaacgac cagaagaagc ugaugagcaa caacgugcag aucgugcgcc 900
agcaguccua cagcaucaug uccaucauca aggaggaggu ccucgccuac guggugcagc 960

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gcgacaacgc	cggcagcgug	uccuucuucc	cccaggccga	gaccugcaag	guccagagca	1140
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ucccguccga	cgaguucgac	gccagcaucu	cccaggugaa	cgagaagauc	aaccagagcc	1560
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ucuuuuucuu	uuucguuggu	guaaagccaa	caccucuguc	aaaaaacaua	aauuucuuua	1920
aucauuuugc	cucuuuucuc	ugugcuucaa	uuauuuuuuu	auggaaagaa	ccuagaucua	1980
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	2040
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