```
>NC_000964
GCUUGUUUUGCAUUUG-----CAAAGCGCCAAGGUGCUAAAUCCAGCAAGCGUUUUUUAGCUUGGAAGAUAAGAAGAAGCGU--UAAACCCCUUCUUCUUAUGAAGAAGGGGUUUUUA
>NC_009725
GUUUGCUUUGCCGCGGGAAGGCAAAGUGCCAAGGUGCUAAAUCCAGCAAGCGAUUCACAGCUUGGAAGAUAAGAGGAAGAGA--AAAGCUCCUUCUUCUUAUGAAGAGGGGGCUUUUU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...(((((((((.....)----)))))))(((((.((((.....))))............)))))....................((((((((((((....)))))))))))))..
...(((((((((.....)----)))))))..........((((((..((((.........)))))....((((((((((.............))))))))))).......))))))...
.................----....(((....))))....(((((...............)))))..................((((((((((((....))))))))))))..
...(((((((((.....)----)))))))(((((.((((.....))))............)))))...((((((((((.............))))))))))).(((((....))))).
...(((((((((.....)----)))))))......((((........((((........)))))..............))))...((((((((((((....))))))))))))..


#yxkD
#The following shows an alignment in 5'-UTR of yxkD and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UUGGACUGUGACCGAGAGAAAACACAUAGCAGCUUGGCUGUUAUGACACGGUGGGAUAAAGCCCAGGAGUUUCUGCUCUUUU--UCGAGAGCGUUCUCCU-GGGUUUUUUUAUUUGCU
>NC_014479
UUGGACUGUGACCGAGAGAAAACACAUAGCAGCCCGGCUGUUAUGACACGGUGGGAUAAAGCCCAGGAGUUUCUGCUCUUUU--GCGAGAGCGUACUCCU-GGGUUUUUUUGUU----
>NC_009725
UUGGUCUG-GACCGAGAGAAAACACACAGCAGGUUC-CUGCUGUGACACGUUGGGAUAAAGCCCGGGAGUUUCUGCUCUUUUAAUGAAGAGUGCUCUCCC-GGGCUUUUUUGAU----
>NC_014551
UUGGUCUG-GACCGAGAGAAAACACACAGCAGGUUU-UUGCUGUGACACGGUGGGAUAAAGCCCGGGAGUUUCUGCUCUUUUGAUGAAGAGUGCUCUCCCCGGGCUUUUUUGAU----
>NC_006270
CUGGUCUG-GUCCGAGAGAAAACACAUAGCGAAGUA-UCGUUAUGACACGGUGGGAUAAAGCCCAGGAGUUUUUGCUCUUAAU-CAAAGAGCUUCUCUCCUGGGCUUUUUUACUUUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((....-..)))).........((((((((....-)))))))....(((((((..((((((((((....(((((((...-..)))))))..)))))-)))))))))))----
..((((((-(...(((((.((((.((((((((....-)))))))).....(((.....)))).)))).(((((((...-..)))))))))))))-)))))........----


#ileS
#The following shows an alignment in 5'-UTR of ileS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011658
UACGUUGCUAAGUGCUAUUAGUGAAGA-GCUAAUAGAA-UUAGGGUGGUAUCGCGGGUAA-CCCGUCCCUAUUUUAUAGGGACGGGUUU-UUUGUGUGCUUU-AAAACAUUCAAA
>NC_005957
UACGUUGCUAAGUGCUAUUAGUGAAGA-ACUAAUAGAA-UUAGGGUGGUAUCGCGGGUAG-CCCGUCCCUACUUUAUAGGGACGGUUUU-UUUGUGUGCUUU-AAAACAUUCAAA
>NC_008600
UACGUUGCUAAGUGCUAUUAGCGAAGA-GCUAAUAGAA-UUAGGGUGGUAUCGCGGGUAA-CCCGUCCCUACUUCAUAGGGACGGGUUU-UUUGUGUGCUUU-AAAAUAUUCAAA
>NC_011725
UACGUUGCUAAGUGCUAUUAGUGAAAAUGCUAAUAGAA-UUAGGGUGGUAUCGCGGGUAA-CCCGUCCCUACUUUAUAGGGACGGGUUU-UUUGUGUGCUUU-AAAAUAUUCAAA
>NC_011772
UACGUUGCUAAGCGCUAUUAGUGAAAA-GCUAAUAGAA-UUAGGGUGGUAACGCGGGUAA-CCCGUCCCUACUUCAUAGGGGCGGGUUU-UUUGUGUGCUUUUAAAACAUUCAAA
>NC_014019
UACGUUGCUGAGUGCUAUUGAUGAACGGAUCAAUAGAAGCCAGGGUGGUACCGCGGUUAAACCCGUCCCUAGU-CAUAGGGACGGGUUUCUUUGUGUGCUUU--UAAC-UUUAAA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.......((((...(((((((.....-)))))))..-)))).....(((((.(((((.((-((((((((((.....)))))))))))).-)))))))))..-...........
....(((((((.....)))))))...-.......(((-(((((((....((((((.((-((((((((((.....)))))))))))).-)))))))))))))-)....))))...
...........((((((((........-.(((((...)-)))))))))))))(((((.((-((((((((((.....)))))))))))).-)))))).....-...........
```

```
#glyQ
#The following shows an alignment in 5'-UTR of glyQ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_002570
CCUAUGGUGUCAUCAUAGGCAAAUAGGGUGGAACCGCGGGUUAACUCUCGUCCCUAUGCGUCCGUUCG---GCAUAGAGGCGGGAGUUUUUUGUACUUUAAGUGAAACUUUU
>NC_000964
GGGA---UUUUGUUCUCAGCAACUAGGGUGGAACCGCGGGAGAACUCUCGUCCCUAUGUUGCGGCUGGCAAGCAUAGAGACGGGAGUUUUU-UGGUUGCUGCCGCAGUCAAC
>NC_014479
GGGA---UUUUGUUCUCAGCAACUAGGGUGGAACCGCGGGAGAACUCUCGUCCCUAUGUUGCGGCUGGCAAGCAUAGAGACGGGAGUUUUU-UGGUUGCUGCCGCAG-CAUU
>NC_009725
GAGUGAUUCACAUCCUCAGCAACUAGGGUGGAACCGCGGGAGAACUCUCGUCCCUAUGUUGCGGCCGGCAAGCAUAGAGACGGGAGUUUUU-UGGUUGCCGCCGCACUUGUA
>NC_014551
GAGUGAUUCACAUCCUCAGCAACUAGGGUGGAACCGCGGGAGAACUCUCGUCCCUAUGUUGCGGCUGGCAAGCAUAGAGACGGGAGUUUUU-UGAUUGCCGCCGCACUUGUA
>NC_014639
GGGGG--UUAAAUCC-CGGCAACUAGGGUGGAACCGCGGGAGAACUCUCGUCCCUAUGUUGCGGCUGGCAAGCAUAGAGACGGGAGUUUUU-UGGUUGCAGCCGCAGUGAAC

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.........................((((((((((...((((((((((((.((((((((.....)).)))))))).))))))))))))-)))))).)))))).........
..................(((..(((((.......((((((....)))))))))))))))))))(((((.(((((....((((((....))))))-...)))))))))).....
..........((((((.......)))))).....(((((((((((((((((.((((((((.....)).)))))))).))))))))))))-.........)))).......


#thiM
#The following shows an alignment in 5'-UTR of thiM and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_003909
AGCGUAGGGAGAGUGUAAAAGCACAUGUUCAGGCACUUUGCGUACGCGCAAAGUGCCUUUUGUGUAUCUCCCAUAACUAUAGUUAGGAGAUGAGAAG
>NC_011725
AGCGUAGGGAGAGUGUAAAAGCACAUGUUCAGGCACUUUGCGUACGCGCAAAGUGUCUUUUGUGUAUCUCCCAUCAUUAUAGUUAGGAGAUGAAAAG
>NC_012581
AGCGUAGGGAGAGUGUAAAAGCACAUGUUCAGGCACUUUGCGUACGCGCAAAGUGCCUUUUGUGUAUCUCCCAUCACUAUAGUUAGGAGAUGAGAAG
>NC_014335
AGCGUAGGGAGAGUGUAAAAGCACAUGUUCAGGCACUUUGCGUACGCGCAAAGUGCCUUUUGUGUAUCUCCCAUCACUAUAGUUAGGGGAUGAGAAG
>NC_011772
AGCGUAGGGAGAGUGUAAAAGCACAUGUUCAGGCACUUUGCGUACGCGCGAAGUGCCUUUUGUGUAUCUCCCAUCAUUAUAGUUAGGAGAUGAAAAG
>NC_014171
AGCGUAGGGAGAGUGUAAAAGCACAUAUUCAGGCACUUUGCGUACGCGCAAAGUGUCUUUUGUGUAUCUCCCAUCAUUAUAGUUAGGAGAUGAAAAG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
......((((((((((....))))).....((((((((((((....))))))))))))).......))))))........................
.....................((((.....((((((((((((....))))))))))))..))))(((((((.............)))))))).....


#yugI
#The following shows an alignment in 5'-UTR of yugI and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012472
GGAAAUUUUUUCAUGAAUUUUGAAUGCGUCCUGUCAUAGUGGUAUAAUUUACUAAUAUAGGUAUACGUAUUCGGAGUAGUUUUACUUAGGGUACGUACUAACUAAUCGGAUAUUUAAC
>NC_011658
GGAAAUUUUUUCAUGAAUUUUGAAUGAGCUCUGUCAUAGUGGUAUAAUUUACUAAUAUAGGUAUGCGUAUCCUGAGUAGCUUUACUUACGGUACGUAUUAACUAAUCGGAUAUUUAAC
>NC_003909
```

```
GGAAAUUUUUUCAUGAAUUUUGAAUGAGCUCUGUCAUAGUGGUAUAAUUUACUAAUAUAGGUAUGCGUAUCCUGAGUUGCUUUACUUAGGGUACGUAUUAACUAAUCGGAUAUUUAAC
>NC_011725
GGGAAAUUUUUCAUGAAUUUUGAAUGAGUUCUGUCAUAGUGGUAUAAUUUACUAAUAUAGGUAUGCGCAUUCUAGAUAUCAUUAUCUAGAAUGUGUACUAACCAAUCGGAUAUUUAA-
>NC_014171
GGGAAAUUUUUCAUGAAUUUUGAAUGAGUUCUGUCAUAGUGGUAUAAUUUACUAAUAUAGGUAUGCGCAUUCUAGAUAUUGUUAUCUAGAAUGCGUACUAACCAAUCGGAUAUUUAA-
>NC_011772
GGGAAAUUUUUCAUGAAUUUUGAAUGAGUUCUGUCAUAGUGGUAUAAUUUACUAAUAUAGGUAUACGCAUUCUAGAUAACGUUAUCUAGAAUGCGUACUAACCAAUCGGAUAUUUAA-

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.((((...)))).((((((((((.....(((((..((((((.....)))))).)))))..(((((((((((((((....)))))))))))))))).....)))))..)))))..
.........((((.......)))).......((((....((((.....(((((.....)))))((((((((((((((....)))))))))))))))...))))....))))......
.........((((.......))))..............(((((.....)))))...(((((((((((((((((((....)))))))))))))))).............)))))))..
.((((...)))).((((((((((((.....))))).....((((...(((((.....)))))..((((((((((((((....)))))))))))))))...)))).)))))..))))))..
.........(((((.........)))))..((((...(((((.....(((((.....)))))...((((((((((((((....)))))))))))))))))))).....))))........


#trpE
#The following shows an alignment in 5'-UTR of trpE and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011773
AUUUUGUACCUGAAUAAAGCGGGAUGCUUUUGCGUCCAACAUGAGGUGGUACCACGGUAAUUUAUCGUCCUCUACAUAUUUUCGAUAUGUAGAGGACUUUUUUAUUUUUCAGGAUGAG
>NC_012472
AUUUUGUACCUGAAUAAAGCGGGAUGCUUUUGCGUCCAACAUGAGGUGGUACCACGGUAAUUUAUCGUCCUCUACAUAUUUUCGAUAUGUAGAGGACUUUUUUAUUUUUCAGAUUGAG
>NC_011658
AUUUUGUACCUGAACAAAGCGGGAUGCUUUUGCAUCCAACACGAGGUGGUACCGCGGUAAUUUAUCGUCCUCUACAUAUUUUCGAUAUGUAGGGGACUUUUUUAUUUUUCAGGAUGAG
>NC_003909
AUUUUGUACCUGAACAAAGCGGGAUGCUUUUGCAUCCAAUACGAGGUGGUACCGCGGUAAUUUAUCGUCCUCUACAUAUUUUCGAUAUGUAGGGGACUUUUUUAUUUUUCAGGACGAG
>NC_011969
AUUUUGUACCUGAACAAAGCGGGAUGCUUUUGCAUCCAACACGAGGUGGUACCGCGGUAAUUUAUCGUCCUCUACAUAUUUUCGAUAUGUAGAGGACUUUUUUAUUUUUCAGGGCGAG
>NC_011772
AUUUUGUACCUGAACAAAGCGGGAUGCUUUUGCAUCCAACACGAGGUGGUACCGCGGUAAUUUAUCGUCCUCUACAUAUUUUCGAUAUGUAGGGGACUUUUUUAUUUUUCAGAGUGAG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....(((((...........((((((....)))))).........)))))..............((((((((((((((...))))))))))))))...(((((((....)))))))
((((((((((........((((..((((((...........))))))...))))))))).......((((((((((((((...))))))))))))))...........))))))...
........((((((.......((((((....)))))).....(((((.....((((((...))))))((((((((((((((...))))))))))))))))).......)))))).....
........((((.......)))).........(((((.......(((((...........)))))((((((((((((((...))))))))))))))..............)))))..
((((((((((.......((((((...)))))).........)))))).......(((((.....((((((((((((((...))))))))))))))....)))))...)))))))...


#cysE
#The following shows an alignment in 5'-UTR of cysE and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011773
AGUGGAACCGCGCUUAUAAGGCGUCUCUGUCAAUAUGACAGAGGCGUCUUUUUUU-AUACGUAAAAUUGG-UAUGAGUAUAAGUCUUAUCCACGUGUAUAAAGAUUUAG
>NC_011658
AGUGGAACCGCGCUUAUAAGGCGUCUCUGUCAAUAUGACAGAGACGUCUUUUUUU-AUACGUAAAAUUGGGUAUGAGUAUAAGUUUUAUCCACGUGUAUAAAGAUUUAG
>NC_003909
AGUGGAACCGCGCUUAUAAGGCGUCUCUGUCAAUAUGACAGAGGCGUCUUUUUUU-AUACGUAAAACUGGGUGUGAGUAUAAGCUUUAUCCACGUGUAUAAAGAUUUAG
>NC_011725
AGUGGAACCGCGCUUAAAAGGCGUCUCUGUCAAUAUGACAGAGACGCCUUUUUUUUAUACGUGUAAAUAGGUAUGAAUAUAGAAUUUAUCUCCUUAUAUAAAGAAUUAG
>NC_011772
```

```
AGUGGAACCGCGCUUAAAAGGCGUCUCUGUCAAUAUGACAGAGGCGUUCUUUUUUUAUACGUAAAACUGGGUAUGAGUAUAAAUUUUAUCUACGUGUAUAAAGAUUUAG
>NC_009848
AGUGGAACCGCGUUUUCAAAACGUCUCUGUCAUAU-GGCAGAGGCGUUUUUUAUU-UGUCAAAAAAGAGA-GCAAGUCCGAAGAGAGAUUGAUGGGGAGAACGG--GGG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((.....(((((.(((((((((((((((...)))))))))))))))..(((-((((..........)))))))..)))))....)))))................
((((......))))...(((((((((((((((...)))))))))))))))))(((((-((((((.....((((((.............)))))).))))))))))).....


#ylxS
#The following shows an alignment in 5'-UTR of ylxS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
CCGAGGC-AAAGAGUGGGGAAACCCGCUCUUUUGUAUUGAACAGGAGAAUUUUGUCUCGCAU-GUUCAUCGUUUACUUUUUAGCCCCUGCUCUUUUGAAGCAGGGUUUUUAUGCAGAG
>NC_014479
CCGAGGC-AAAGAGUGGGGAAACCCGCUCUUUUGUAUUGAACAAGAGAAUUUUGUCUCGCAU-GUUCAUCGUUUACUUUUUAGCCCCUGCUCUCUUGAAGCAGGGUUUUUAUGCAGAG
>NC_009725
CCGAGGC-AAAGAGUGGGGAAACCCGCUCUUUUGUAUUGAACAGGC-AAUUUUGCCUCGCAU-GUCCAUCGUUUUCUCAAU-GCCCCUGCUCUUUUGAAGCAGGGUUUUUAUGCAGAG
>NC_014551
CCGAGGCCAAAGAGUGGGGAAACCCGCUCUUUUGUAUUGAACAGGC-AAUUUUGCCUCGCAU-GUCCAUCGUUUUCUCAAA-GCCCCUGCUCUUUAGAAGCAGGGUUUUUAUGCAGAG
>NC_006270
CCGAGGC-GAAGAGUGGGGAAACCCGCUCUUUUGUAUUGAACAGGC-AAUUUUGUCUCGCAU-GUUCAUCGUUUUUUCUAAAAUCCCC-UGCUUUUGAAGCAGGGUUUUUACG-AGGG
>NC_009848
CCGAGAC--AAGAGUGGGGAAACCCGCUCUUUUGUAUUGAACAGGCAAUUUUUGUCUCGCAUUAUUCAUCCGUUUUCUGCU-CCCCCUGCUCACAUAAAGCAGGGUUUUUAUGCAGAA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.......-((((((((((....)))))))))).....((((((((((...)))))).....)-)))))................(((((((.......)))))))............
.(((((.-..(((((((((....)))))))))((((.....)))))....)))))....((((-(....................(((((((.......)))))))....)))))....
.(((((.-((((((((((....)))))))))).................)))))........-.......................((((.......(((((...)))))...)))))..
.((((((-((((...(((((.......)))))).................)))))))))...-.......................(((((((.......)))))))............
.((((((-((((...((((.......)))))((((.....)))))....)))))))))...-.......................((((.......(((((...)))))...)))))..


#hutH
#The following shows an alignment in 5'-UTR of hutH and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011969
CAUAGUCUAUUAGUUAGAAGGGGGCCUUACUUUUUUUAGGACAGAAGUCUGUCUUAAAAGAUAAGGCCCCCUUUUGCCUUUUUAAGGAGGAAAAA-G-AAUGAUUACAUUAACGGGAC
>NC_014335
CAUAGUCUAUUAGUUAGAAGGGGGCCUUACUUUUUUUAGGACGGGAGUCUGUCUUAAAAGAUAAGGCCCCCUUUUGCCUUUUUAAGGAGGAAAAAAG-AAUGAUUACAUUAACGGGAC
>NC_006274
CAUAGUCUAUUAGUUAGAAGGGGGCCUUACUUUUUU-AGGACAGAAGUCUGUCUUAAAAGAUAAGGUCCCCUUUUGCCUUUUUAAGGAGGAAAAAAG-AAUGAUUACGUUAACAGGAC
>NC_003909
CAUAGUCUAUUAGUUAGAAGGGGGCCUUACUUUUUU-AGGACAGAAGUCUGUCUUAAAAGAUAAGGUCCCCUUUUGCCUUUUUAAGGAGGAAAAACA--AUGAUUACGUUAACAGGAC
>NC_011772
CAUAGUCUAUUAGUUAGAAGGGGGCCUUACUUUUUU-AGGACAGAAGUCUGUCUUAAAAGAUAAGGUCCCCUUUUGCCUUUUUAAGGAGGAAAAAAAGAAUGAUUACGUUAACAGGAC
>NC_012659
CAUAGUCUAUUAGUUAGAAGGGGGCCUUACUUUUUUUAGGACAGAAGUCUGUCUUAAAAGAUAAGGCCCCCUUUUGCCUUUUUAAGGAGGAAAAAGA--AUGAUUACAUUAACAGGAC

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..(((((.......(((((((((((((.((((((.(((((((....)))))))))))))))))))))))))))))))((((....)))))).......-...)))))............
....((((.((((((((((((((((((((((.........)))))))((.........)))))))))))))))))))))))((((....)))))).......-.........)))))..))))
```

```
....(((((.(((((((((((((((((((((((....((((....))))).....)))))).))))))))))))))..(((((.......)))))..-.........)))))..))))


#glyS
#The following shows an alignment in 5'-UTR of glyS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011772
ACCUUUUGUGUAUCAACUAGGGUGGAACCGCGGGCAAA-CGCUCGUCCCUAGGCAAAUAGCCUUGGGAUGAGCGUUUUUUUAUGUUCUUUUUAGCAUAUACUGCUCGUUUC-CAAAGU
>NC_006274
ACCUUUUGUGUAUCAACUAGGGUGGAACCGCGGGCAAA-CGCUCGUCCCUAGGCAAUUAGCCUUGGGAUGAGCGUUUUUUUAUGUUUUUCAAAGCAUAUACUGCUCGUUUCACAAGUU
>NC_014335
AUCUUUUGUGUAUCAACUAGGGUGGAACCGCGGGCAAA-CGCUCGUCCCUAGGCAAUUAGCCUUGGGAUGAGCGUUUUUUUAUGUUUUUCAAAACAUAUACUGCUCGUUUCACAAGUU
>NC_003909
ACCUUUUGUGUAUCAACUAGGGUGGAACCGCGGGCAAA-CGCUCGUCCCUAGGCAAUAAGCCUUGGGAUGAGCGUUUUUUUAUGUUUUUUAAAGCAUAUACUGCUCGUUUCACAAGUU
>NC_014019
AUUUU----GUAUCAACCAGGGUGGAACCGCGGGAAAAACUCUCGUCCCUGGGCAUAUU---UUGAUAUGCCCAGGGACGAGAGUUUUUUU----GUAC-CCGCUCUUUUU--GUUUC

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....................(((((((.((((..(((-((((((((((.((((.....)))).)))))))))))))...(((((((....)))))))..))))..)))))))).....
................((((((.......((((((...-.)))))))))))...........((((((((((.....(((((((....)))))))...)))))))))).....
(((((.............)))))......((((((...-.))))))....((((.....))))((((((((((.....(((((((....)))))))...)))))))))).....
.......((((((..........((((.......(((-((((((((((.((((.....)))).)))))))))))))).....)))).......)))))................


#leuS
#The following shows an alignment in 5'-UTR of leuS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AUAACUGCGUUAAAAGUAUCAAGUGAGUGCG---GCGUAUG-CCGCGCUAACG-AGGGUGUACCGCGGGAAAACGAA--AGUCUCUCGUCCCUUU---UU-GGGAUGAGGGAG
>NC_009848
AUGUCUGCGUUAAAGAUAUUAAGUGAGCGUACAAACAGAAAGUUACGCUAACA-AGGGUGUACCGCGGGAACCAAAA--AAUCUCUCGUCCCUUU---CCAGGGAUGAGGG--
>NC_006270
GUAUCUGCGUUACAGAUAUCAAGUGAGUGUG---CCGCGUG--CACACUAACA-AGGGUGUACCGCGGGAAA--------UCUCUCGUCCCUUC---UUAGGGAUGGGAGAG
>NC_010184
UAAUCCACGUUACGGAU-CUAAGCGAAUGUA---UUU----AUUACAUUAAUUUAGGGUGUACCGCGGGAAU-CUAU--AACCUCUCGUCCCUUU---CUAGGGAUGAGAGGU
>NC_009674
UCAUCCACGUUACGGAU-UUAAGUGAAUGUA---AGU---AUUUACAUUAAUUUAGGGUGUACCGCGGGAAU-CUAU--AACCUCUCGUCCCUUU---UUAGGGAUGAGAGGU
>NC_014019
CUAUCCGCGUUAAGGAAAAUGAGUGAGUACA--------UAAUUGUGCUAAUU-UGGGUGUACCGCGGGAAGUUUAUUCAACCUCUCGUCCCUUUGUUUGAGGGAUGAGGGGU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...((((((...............(((((---((.....)))))))).....-.........)))))........---..((((((((((..---..))))))))))).
((((((.......)))))).............---.........((((((....-..))))))................---..((((((((((..---..))))))))))


#yrhG
#The following shows an alignment in 5'-UTR of yrhG and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006270
CUGUAUAUAUUCUCUUUC-AAUAUUUUA-AUUCUGCUUGAUUUUGUUGUAUGGGUAUGCUACAAGUUAGGCAGCAUUCGAACGCC-UG--UUGACACAGGUUAUUUGAGUGCUGCCUU
>NC_000964
CUGUAUAUAUUCUCUUUC-AAUAUCUUAUAUACUGCUUGAUAUUGUUGUAUGGGUAUGCUACAAGUUAGGCAGCAUUCAAACGCC-UGGUUUGACACAGGUUAUUUGAGUGCUGCCUU
>NC_014479
```

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CUGUAUAUAUUCUCUUUC-AAUAUCUUA-AUUCUGCUUGAUAUUGUUGUAUGGGUAUGCUACAAGUUAGGCAGCAUUCAAACACC-UGGUUUUACACAGGUUAUUUGAGUGCUGCCUU
>NC_009725
CUGUACAUAUUCUAUACCGCAUAUUUUC-AUUCUGCUUGAUAUUGUUGUAUGGGUAUGCUACAAGUUAGGCAGCAUUCAAACCCCGUUUUUUCAGACGGGUUAAUUGAAUGCUGCCUU
>NC_014551
CUGUACAUUUUCUAUAGCUAAUAUUUUC-AUUCUGCUUGAUAUUGUUGUAUGGGUAUGCUACAAGUUAGGCAGCAUUCAAACCCG----UUUUAGACGGGCUGUUUGAAUGCUGCCUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((((((((.....(-((((((...-.........)))))))......)))))))..))))....((((((((((((((.(((-((........)))))..))))))))))))))).
......(((((.......-)))))....-.....(((((........((((....))))..)))))).((((((((((((((.(((-((........)))))..))))))))))))))).


#argH
#The following shows an alignment in 5'-UTR of argH and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_008600
ACUCGGUGCAGAGAGCACCGAGUUUAUUUUUGUGUACAAGCACUUUUUUCCUAUCUCUGGUAUGAUGGGUAGUAAUACUUAGGUGAAAGGGGAAAAGG
>NC_011969
ACUCGGUGCAGAGAGCACCGAGUUUAUUUUUGUGUACAAGCACUUUUUUGCUAUCUCUGGUAUGAUGGGUAGUAAUACUUAGGUGAAAGGGGAAAAGG
>NC_005957
ACUCGGUGCAGAGAGCACCGAGUUUAUUUUUGUGUACAAGCACUUUUUUCCUAUCUAUGGUAUGAUGGGUAGUAAUACUGAGGUGAAAGGGGAAAAGG
>NC_006274
ACUCGGUGCAGAGAGCACCGAGUUUAUUUUUGUGUACAAGCACUUUUUCCCUAUCUCUGGUAUGAUGGGUAGUAAUACUGAGGUGAGAGGGGAAAAAG
>NC_012581
ACUCGGUGCAGAGAGCACCGAGUUUAUUUUUGUGUACAAGCACUUUUUCCUAUCUCUGGUAUGAUGGGUAGUAAUACUGAGGUGAGAGGGGAAAAAG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((((((.....)))))))))....(((....)))).(((((((((((((.((((((...........)))))))))....)))))))))
.(((((((((.....)))))))))))))))).((((....)))).....((((((........))))))..........)))))))).........
(((((((((.....)))))))))........((((....)))).(((((....(((((.........((((....))))).........)))))))))
(((((((((.....)))))))))...(((((.........((((((....((((((.........))))))).......))))))........)))))
..(((((((((.....)))))))))((((...........)))).((((((((.((((........)))))((((....)))).....)))))))).....


#secG
#The following shows an alignment in 5'-UTR of secG and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_003997
AGAGAAGAAAAGCGAGAGCGACUGUAUAGCUCUCGCUUUUCUAUAGAAUUUAUGCUACAUUACAAUAACUGAAUUUUUGUAGGAGGUACGCCAAG-UGCAUACGUUAU
>NC_003909
-UAGAAGAAAAGCGGGAGCAACCUUAUAGCUCUCGCUUUUCUAUAGAAUUUAUGCUACAUUACAAUAACUGAAUCUUUGUAGGAGGUACGCCAAG-UGCAUACGUUAU
>NC_011658
-UGGAAGAAAAGCGAGAGCAACCUUAUAGCUCUCGCUUUUCUAUAGAAUUUAUGCUACAUUACAAUAACUGAAUCUUUGUAGGAGGUACGCCAAG-UGCAUACGUUAU
>NC_011772
-UGGAAGAAAAGCGGGAGCGACUCUAUAGCUCUCGCUUUUCUAUAGGAUUUAUGCUACAUUACAAUAACUGAAUCUUUGUAGGAGGUACGCCAAG-UGCAUACGUUAU
>NC_010184
-UAGAAGAAAAGCGAGAGCGAUUCUAUAGCUCUCGCUUUUCUAUAGGAUUUAUGCUACAUUAAAAUAACUGAAUCUUUGUAGGAGGUACGCCAAG-UGCAUACGUUAU
>NC_009674
--UAUAGAAAAGCGAGAGCAAGCGAACGGCUCUCGCUUUUCUGUACAAUUUAUGCUACAUUAAACUAACUGAAUCUU-GUAGGAGGUACGCUAAGAUGCAUACGUUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
-....((((((((((((((.........)))))))))))))).............(((((.................)))))...((((.....)-))).........
-....((((((((((((((.........)))))))))))))).........(((((.................((((((...)))))).........-.)))))......
```

```
#pyrH
#The following shows an alignment in 5'-UTR of pyrH and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_005945
AGGAGUGGAUGAUAUGAAAAAUUACGUACAAAAAUUCGUCUUAUCUUCUU---UUCUUUUCAUUUUCUUAAAAAGGAACAAGGGCAUUCGCCUUUGUUCCUUUUUUAUUGCGAUC
>NC_008600
AGGAGUGGAUGAUAUGAAAAACUAUACAAAGCAAUUCGCCUUAUCUUCUUCUUUUCUUUUCAUUUUCUUAAAAAGGAACAAGGGCAUUUGCCUUUGUUCCUUUUUUAUUGCGAUU
>NC_004722
AGGAGUGGAUGUUAUGAAAAACUAUACAAAGCAAUUCGUCCUAUCUUCUUCUUUUCUUUUCAUUUUCUUAAAAAGGAACAAAGGCAUUCGCCUUUGUUCCUUUUUUAUUGCGAUC
>NC_011772
AGGAGUGGAUGUUAUGAGAAACUAUACAAAGAAAUUCGUCCUAUCUUCUUCUUUUCUUUUCAUUUUCUUAAAAAGGAACAAAGGCAUUCGCCUUUGUUCCUUUUUUAUUGCGAUC
>NC_011658
AGGAGUGGAUGAUAUGAAAAACUAUACAAAACAAUUCGUCUUAUCUUCUUCUUUUCUUUUCAUUUUCUUAAAAAGGAACAAAGGCAUUCGCCUUUGUUCCUUUUUUAUUGCGAUC
>NC_010184
AGGAGUGGAUGUUAUGAAAAAUCACGUGAAGAAGUUCAUCAUAUCUAUUUCUUUUCUAUUCAUUUUCUUACGAAGGAACAAAGGCAUUCGCCUUUGUUCCUUUUUUAUUGCAAUC

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((.((((((.(((((.................)))))).)))))).)))))..................((((((((((((((....))))))))))))))).........
(((((..((((....(((((.................................)))))....)))))))))((((((((((((((....))))))))))))))).........


#secDF
#The following shows an alignment in 5'-UTR of secDF and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_003909
AAACUUACCGACACAGCUGGUGAGGAACUAGCAAAA-UUAUAGAAAGGAAGUCUACUAAUAGGCGUAUGCACACGUGUGAAGGUGAAUCGUAAAAGAUUUAUUUGAAGUGUUAGUAG
>NC_005957
AAACUUAUCGACACAGCUAGUGAGGAACUAGCAAAA-UUAUAGAAAGGAAGUCUACUAAUAGGCGUAUGCACACGUGUAAAAGUGAAUCGUAAAAGAUUUAUUUGAAGUGUUAGUAG
>NC_006274
AAACUUACCGACACAGCUAGUGAUGAACUAGCAAAA-UUAUAGAAAGGAAGUCUACUAAUAGGCGUAUGCACACGUGUAAAAGUGAAUCGUAAAAGAUUUAUUUGAAGUGUUAGUAG
>NC_011772
AAGCUUACCUAUACAGCUAGUGAUGAACUAGCAAAAAUUAUAGAAAGGAAGUCUACUAAUAGGCGUAUGCACACGUAUAAAAGUGAAUCGUAAGAGAUUUAUUUAAAGUGUUAGUAG
>NC_014171
AAGCUUACCUAUAGAGCUAGUGAUGAACUAGCAAAAAUUAUAGAAAGGAAGUCUACUAAUAGGCGUAUGCACACGUAUAGCAGUGAAUCGUAAGAGAUUUAUUGAAAGUGUUAGUAG
>NC_011725
AAGCUUACCUAUACAGCUAGUAAUGAACUAGCAAAAAUUAUAGAAAGGAAGUCUACUAAUAGGCGUAUGCACACGUGUAAAAGUGAAUCGUAAGAGAUUUAUUUAAAGUGUUAGUAG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..((((....((((.((((((.....)))))).................(((((....)))))..........)))).((((((((.....)))))))).)))).........
..((((.........((((((.....)))))).................)))))))))))(.((((.....)))).....((((((((.....)))))))))....)))))))))
...((((........((((((.....)))))).........((((.......)))).....)))).......((((.....((((((((.....)))))))))...)))).......
.........................((((((.................(((((....))))).(((((....))))).((((((((.....)))))))))....)))))))..
..........((((...(((((.................................)))))....((((......)))).....((((((((.....)))))))))...)))).......


#tenA
#The following shows an alignment in 5'-UTR of tenA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AACCACUAGGGGUGUCCUUCAUAAGGGCUGAGAUAAAAGUGU-GACUUUUAGACCCUCAAACUUGAACAGGUUCAGACCUGCGUAGGGAAGUGGAGCG
>NC_009725
```

```
GACCACUAGGGGUGUCCUUCAUAAGGGCUGAGAUAAAAGUGA-GACUUUUAGACCCUCAAACUUGAACAGGUUCAGACCUGCGUAGGGAAGUGGAGCG
>NC_009848
---CACUAGGGGAGUCCUUUAAAAGGGCUGAGAUAAAAGUAUUGACUUUUAGACCCUCAUACCUGAACAGGUUCAUACCUGCGUAGGGAAGUGGUGCG
>NC_006270
--CCACUAGGGGAGUCCUUGAUAAGGGCUGAGAUAAAAGUUU-GACUUUUAGACCCUCAAACCUGAACAGGUUCAAACCUGCGUAGGGAAGUGGCACG
>NC_012581
AUCCACUAGGGGGGCCUAUUAUA--GGCUGAGAUCAAAUUG--GAAUUUGAGACUCUUAUACCUGAUCUGGUUAAUGCCAGCGUAGGGAAGUGGGAAA
>NC_011725
AUCCACUAGGGGGGCCUUUUAUA--GGCUGAGAUCAAAUGU--GAUUUUGAGACUCUUAUACCUGAUCUGGUUAAUGCCAGCGUAGGGAAGUGGGAAA

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..((((((((.(((((((...)))))))....(((((((..-.)))))))..))))....((((..(((((....)))))..)))))..)))))....
..((((((((...))))).....((((((((.........-...)))))).))))....((((..(((((....)))))..)))))..)))))....
..((((((((...)))).............(((((((..-.)))))))..((((..........(((((....)))))...)))).)))))....
..(((((.......(((.....(((.....(((((((..-.)))))))..))))..........(((((....)))))...)))).)))))....


#narH
#The following shows an alignment in 5'-UTR of narH and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011658
AACCUAGAUAAAUGCAUCGGCUGCCAUACUUGUAGCGUAACGUGCAAAAACACCUGGACAAUCGUCCAGGUGCUGAAUAUAUGUAUUUUAAUAACGUAGAAACGAAACCUGGCAUUGG
>NC_011773
AACCUAGAUAAAUGCAUCGGCUGCCAUACUUGUAGCGUAACGUGCAAAAACACCUGGACAAUCGUCCAGGUGCUGAAUAUAUGUAUUUCAAUAACGUAGAAACAAAACCUGGUAUUGG
>NC_011725
AACCUAGAUAAAUGCAUCGGCUGCCAUACUUGUAGCGUAACGUGCAAAAACACCUGGACAAUCGUCCAGGUGCUGAAUAUAUGUACUUCAAUAACGUAGAAACGAAACCUGGUAUUGG
>NC_011772
AAUCUAGAUAAAUGCAUCGGCUGCCAUACUUGUAGCGUAACGUGCAAAAACACCUGGACAAUCGUCCAGGUGCUGAAUAUAUGUACUUCAAUAACGUAGAAACGAAGCCUGGAAUUGG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...((((.....(((((..(((((.......)))))).....)))))....(((((((((....)))))))))).......(((((.........)))))..........))))......
...((((.....(((((..(((((.......)))))).....)))))).......)))).((((...((((((........(((((.........)))))........)))))).)))).
...((((.....((((.............)))))))...(((((....(((((((((....)))))))))).........)))))).......)))).........)))).....
..........(((((....(((((.......)))))...((((.......(((((((((....)))))))))).((((.........)))))...)))).............)))))..
.....................(((((...((((.((((...........(((((((((....)))))))))).((((.........)))))...)))).....)))).....)))))....


#infC
#The following shows an alignment in 5'-UTR of infC and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012472
CACCCGCUUCUCACCUGAUGGACGCAUUC-GCAGUUUACAGGUAAAUGUAUUUCUUACUAAGAUUUUACAAGUGUGGGUGUCGUAUGCCCGCAC-UUUUUUUGU-CGGGUU--CU
>NC_009674
CACCCGCUUCUCACCUGAUUGACGCAUUC-GCAGUUAACAGGUAAAUGUAUUUCUUACGAAGAUAGUACAAGUGUGGGUGUCGUAUGCCCGCAC-UUUUUUUGUUCGGGUU--CU
>NC_004722
CACCCGCUUCUCACCUGAUGGACGCAUUC-GCAGUUAACAGGUAAAUGUAUUUCUUACUAAGAUUUUACAAGUGUGGGUGUCGUAUGCCCGCAC-UUUUUUUGUUCGGGUU--CU
>NC_011772
CACCCGCUUCUCACCUGAUGGACGCAUUC-GCAGUUAGCAGGUAAAUGUAUUUCUUACUAAGAUUUUACAAGUGUGGGUGUCGUAUGCCCGCAC-UUUUUUUGU-CGGGUU--CU
>NC_010184
CACCCGCUUCUCACCUGAUGGACGCAUUC-GCAGUUAGCAGGUAAAUGUAUUUCUUACUAAGAUAUUACAAGUGUGGGUGCCGUGUGCCCGCAC-UUUUUUUGUUCGGGUU--CU
>NC_014019
CACCCGCUUCUCACCUGAGUGACGCAUAGAGCAGUUAGCAGGUACAU-CGUAUCUUAAUAAAACGAUAGAAGUGUGGGUGCAGUAUGUACUCACACUUUUUUGUGUGAGUUAAUA
```

```
#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((......(((((.(((((......-...)))))))))).........((((...))))......((((((((((...)))))))))-)).........)))))).--..
(((((((.....(((((.(((((......-...)))))))))...((((..((((...)))))...))))...)))))).....(((((...-..........)))))).--..
............(((((..((((......-...)))))((((.....((..((((...)))))...)))((((((((((...)))))))))-))..)))))).)))))).--..
```

```
#ilvB
#The following shows an alignment in 5'-UTR of ilvB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006270
A--GCCGCGAACAAGGGUGGUACCGCGGAAAGAAAAGCCUUUUCGCCCCUUUGGCCUGC--AAGGUGUGCAGCGUCAACAGUGGGCGGGAAGGCU
>NC_009725
UG-ACCGUAAACAAGGGUGGUACCGCGGAGAGCAAAGCCUUUUCGCCCCUUUUGGCUAUGCAUGAAAUGCUUGGCUGAAUGUGGGUGGGAAGGCU
>NC_014551
UG-ACCGUAAACAAGGGUGGUACCGCGGAAAGCAA-GCCUUUUCGCCCCUUUUGGCUAUGCAUAAAAUGCUUGGCUGAAUGUGGGUGGGAAGGCU
>NC_000964
--GGCCGUAAACAAGGGUGGUACCGCGGAAAGAAAAGCCUUUUCGCCCCUUUUAGCUAUGCAGUUACUGCGCGGCUGAUUGUGGGCGGAAGGGCU
>NC_014479
--GGUCGUAAACAAGGGUGGUACCGCGGAAAGAAGAGCCUUUUCGCCCCUUUUAGCUAUGCAUUCACUGCGCGGCUGAUUGUGGGCGGAAGGGCU
>NC_016047
--GGUCGUAAACAAGGGUGGUACCGCGGAAAGAAGAGCCUUUUCGCCCCUUUUAGCUAUGCAUUCACUGCGCGGCUGAUUGUGGGCGGAAGGGUU

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.-..((((................)))).......(((((((((((((...((((((..((((...)))).)))))))....)))))))))))))
.-..((((....(((((.......(((((((.....)))))))))))))))))))))))))))))((((((..((((...)))).)))))).....)))).......
.-.(((((........)))))...(((((((.....)))))))).((((((((((..((((...)))).)))).))))...........)))))))..
```

```
#glmS
#The following shows an alignment in 5'-UTR of glmS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
GAGGAAGGUGAAAGCCGUUACAAGCUUACAGGGCUAGCAA-UAUGUAAUCCGUUUUUUAUAUAAAUAAAAAUGGUAUCGGACUAUGUCGUUACAUGUUCGCAGAGCAGCGUAAGCA
>NC_008600
GAGGAAGGUGAAAGCCGUUACAAGCUUACAGGGCUAGCAA-UAUGUAAUCCGUUUUUUAUAUAAAUAAAAAUGGUAUCGGACUAUGUCGUUACAUGUUCGCAGAGCAAUGUAAGCA
>NC_014479
ACCAAGGGGGUAACUCCUUGAACAAAGAGAAAUCACAUGAUCUUCCAAAA-A--CAUGUGGAGGGGACGAUUGAAAGUCCCCU-UGAAAUUUGACUUUCUUCGUCUCCU-UUUACA
>NC_016047
ACCAAGGGGGUGACUCCUUGAACAAAGAGAAAUCACAUGAUCUUCCAAAA-A--CAUGUGGAGGGGACGAUUGAAAGUCCCCU-UGAAAUUGGACUUUCUUCGUCUCCU-UUUACA
>NC_000964
ACCAAGGGGGUGACUCCUUGAACAAAGAGAAAUCACAUGAUCUUCCAAAA-AA-CAUGUGGAGGGGACGAUUGAAAGUCCCCU-UGAAAUUUGACUUUCUUCGUCUCCU-UUUACA
>NC_009725
ACCGGAGGGGCGACUCUCCGAACAAAGAGAAAUCACAUGAUCUUCCAAAA-AAACAUGUGGAGGGGACGAUUGAAAGUCCCCU-UGUAAUUUGACUUUCUUCGUCUCCU-UUUGCA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..(((((((....)))))))..............(((((...........-...)))))((((((((((..(((((((....-........)))))))..)))))))))-))....
..(((((((....)))))))......((((...((((((...........-...))))))((((((((.......)))))))-)..................))))..-......
```

```
#proI
#The following shows an alignment in 5'-UTR of proI and the preditced ConSLOpt structures produced by RNAConSLOpt
```

```
>NC_006270
ACCUGCCCUCAGA--GCGCUUAGGCAAACCUAAACGUAUCCC-GCGUUACGGG-GCAAGGCUGAGCAUG-----UA-UAUGCUAAUG-AAGGUGGUACCGCGAAA-CCUUUUCGUC
>NC_014479
ACCUGCCCUCAGA--GCGGUUAGGAAAACCUAAACGUUUCCC-GCGUUACGGG-AUUUGGCUGAGCACA----AUU-UGUGCUAAUG-AGGGUGGUACCGCGAA--CCUUUUCGUC
>NC_016047
ACCUGCCCUCAGA--GCGGUUAGGAAAACCUAAACGUUUCCC-ACGUUAUGGG-AUUUGGCUGAGCACA----AUU-UGUGCUAAUG-AGGGUGGUACCGCGAA--CCUUUUCGUC
>NC_000964
ACCUGCCCUCAAGUCGCGGUUAGGAAAACCUAAACGUUUCCC-GCGUUACGGGGAUUUGGCUGAGCACA----AUU-UGUGCUAAUG-AGGGUGGUACCGCGAA--CCUUUUCGUC
>NC_009725
ACCUGCCCUCAGA--GCGGUUAGGAAAACCUAAACGUAUCCCCUCGUUACGGG-AUUUGGCUGAGCACGGCUGAUU-CGUGCUAAUGUAAGGUGGUACCGCGAAA-CCUUUUCGUC
>NC_009848
ACCUACCCUUUGA--GCUGUUAGGCAAACCUAAACGUUUCCC-GCGUUAAGGG-ACUAGGCUGAGUAUGCAUAUUUGCAUGCUAAUUGAGGGUGGUACCGCGAAAAACCUUUCGUC

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..((((((((((.(--(((.((((((....)))))).))))((((-(.....))))-)........((((((-------.-))))))..))-)))))))....(((((.-....))))).
.............--(((((.......((((.......((((-(.....))))-)........((((((-------.-))))))....-.))))...)))))....-..........
..((((((((..--.((((((((........(((((.....-)))))).....-.)))))))))((((((-------.-))))))..))-)))))))....(((((.-....))))).
.......((((((--(((.((((((....)))))).))))((((-(.....))))-).....)))))....-------.-((((((...-....))))))..(((((.-....))))).
.((((......((--(((.((((((....)))))).)))))...-......))))-.........((((((-------.-))))))..(((-((((.............-..)))))))


#ykkC
#The following shows an alignment in 5'-UTR of ykkC and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UUUCUAGGGUUCCGCAUGUCAAUUGACAUGGACUGGUCCGAGAGAAAACACAUACGCGUAAUAGAAGCGCGUAUGCACACGGAGGGAAAAAAGCCCGGGAGAGUCAAUCUCAUGUGAG
>NC_014479
UUUCUAGGGUUCCGCGUGUCAAUGAACAUGGCCUGGUCCGAGAGAAAACACAUACGCGUAAUAGAGGCGUGUAUGCACACGGAGGGAAAAAAGCCCGGGAGAGUCAAUCUCAUGAGAG
>NC_009725
UUUCUAGGGUUCCGCAUGUUCAU--ACAUGGCCUGGUCCGAGAGAAAACACAUAUGCGGCAUAUCC-CGCAUAUGCACACGGAGGGAAAAAAGCCCGGGAGAGUCAAUCUCAUGUGAG
>NC_006270
UUUCUAGGGUUCCGCACAUUCGU--AUGUGGCCUGGUCCGAGAGAAAACACAUAUG------AUUUGUUCAUAUGCACACGGAGGGAUAAAAGCCCGGGAGUAUCGUUUCCAU-----

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((.(((((((.(((((.....)))))).....((((..........((((((((.........)))))))).....)))).)).....)))))).)))))................
(((((....((((((((((.....)))))).....................((((((((.........)))))))).....))))))))))).......((((.......)))).......
(((((.(((((...(((((.....)))))).....)))))..)))))).....((((((((.........)))))))........((((.....................))))).......
...((((((.....(((((.....)))))..)))))))((((..........((((((((.........)))))))).....))))...............((((.....)))).......
.......(((((..(((((.....)))))).(((((((((..........((((((((.........)))))))).....))))...........)))))..)))))............


#cysH
#The following shows an alignment in 5'-UTR of cysH and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
CAGAAAGCUAC--UGUUUGUUUGUC----UCCGAAAGG-----------------AGGAAGAAGAAAUGUUAACGUAUGAUAAUUGGGAAGAACCAACGAUUACAUUUCCG
>NC_006274
CUAGAGGCGGUUUUAACCUAUUUUGAUUAGGUUAAAACCGUCUUUUUGCUUUUACAGGGGAAAAAACAUGUUGACGUAUGAAACGUGGGAAGAAAAUAAUGUUUCAUUUUCA
>NC_011969
CUAGAGGCGGUUUUAACCUAUUUU-AUUAGGUUAAAACCGUCUUUUUGCUUUUACAGGGGAAAAAACAUGUUGACGUAUGAAACGUGGGAAGAAAAUGAUGUUUCAUUUUCA
>NC_011725
CUAGAGGCGGUUUUAACCUAUUUUCAUUAGGUUAAAACCGUCUUUUUGCUUUUACAGGGGAAAAAACAUGUUGACGUAUGAAACGUGGGAAGAAAAUGUUGUUUCGUUUUCG
```

```
>NC_014335
CUAGAGGCGGUUUUAACCUAUUUC-AUUAGGUUAAAACCGUCUUUUUGCUUUUACAGGGGAAAAA-CAUGUUGACGUAUGAAACGUGGGAAGAAAAUGAUGUUUCAUUUUCA
>NC_003909
CUAGAGGCGGUUUUAACCUAUUUC-AUUAGGUUAAAACCGUCUUUUUGCUUUUAUAGGGGAAAAAACAUGUUGACGUAUGAAACGUGGGAAGAAAAUGAUGUUUCAUUUUCA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..(((((((((((((((((.......)))))))))))))))))).....................((((((.........)))))).....((((((((....)))))))).
..(((((((((((((((((.......)))))))))))))))))).............(((((................(((((((.............)))))))))))))).


#odhB
#The following shows an alignment in 5'-UTR of odhB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011725
UAACAAUGAAGGUUUCUAGCUUGUUCCUUGGGCAGAUAUUCUGCCCAAGGCCAGGCUAA-CAAAUGGAGAUUACCGAAGACAAAAGAAGAAAAAACACACCGUUAGGCAAAUAAGGGG
>NC_014171
UAACAAUGAAGGUUUCUAGCUUGUUCCUUGGGCAGAUAU-CUGCCCAAGUCCAGGCUAA-CAAAUGGAGAUUACCGAAGACAAAAGAAGAAAAAACACACCGUUAGGCAAAUAAGGGG
>NC_003997
UAACAAUAAAGAUUUCUAGCUUGUUCUUUGGGCAGAUAUUCUGCCCAAGGUCAGGCUAAACAAAUGGAGAUUACCGAAGACAAAAGAAGAAAAAACACACCGUUAGGCAAAUAAGGGG
>NC_003909
UAACAAUGAAGAUUUCUAGCUUGUUCCUUGGGCAGAUAUUCUGCCCAAGGUCAGGCUAA-CAAAUGGAGAUUACCGAAGACAAAAGAAGAAAAAACACACCGUUAGGCAAAUAAGGGG
>NC_011772
UAAUAAUGAAGGUUUCUAGCUUGUUCCCUGGGCAGAUAUUCUGCCCAAGGCCAGGCUAA-CAAAUGGAGAUUACCGAAGACAAAAGAAGAAAAAACACACCGUUAGGCAAAUAAGGGG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
................(((((((..(((((((((((...)))))))))))).)))))))..-..(((((.................................)))))..............
((((......((((((((..(((((((((((((((...)))))))))))))).......))-))).)))))))).............................))))............


#glyA
#The following shows an alignment in 5'-UTR of glyA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006274
UGUUGUCUGACUUUAUC-AUAGAAGAAAGAAAAGACCGAUUUUCGGUCUUUUUUUUCUUUAUGAUAUAGAAAGUCAUGUUAGAAUGUAGUUGAAAACAUGAAGGUUCGAAAGAAUUAC
>NC_003909
UGUUGUCUGACUUUAUU-AUAGAAGAAAGAAAAGACCGAAAAUCGGUCUUUUUUUUCUUUAUGAUAUAGAAAGUCAUGUUAGAAUGUAGUUGAAAACAUGAAGGUUCGAAAGAAUUAC
>NC_011772
UGUUGUCUGACUUUAUA-GUAGAAGAAAGAAAAGACCGAUUUUCGGUCUUUUUUUUCUUUAUGAUAUAGAAAGUCAUGUUAGAAUGUAGUUGAAAACAUGAAGGUUCGAAAGAAUUAC
>NC_009674
-------------UAU--AUA-AGGAAAGAAAAGACCGGACUUGG---UCUUUUUUCUUUAUGAUAUAGAAAGUCAUGUUAGAAUGUAGUUGAAAAUAUGAAGAUUUAAAAGAAUUAC
>NC_010184
UGUGGUCUGACUUUAUA-AUAGAAGAAAGAAAAGACCAAUUUUGGUCUUUUUUUUCUUUAUGAUAUAGAAAGUCAUGUUAGAAUGUAGUUGAAAACAUGAAGGUUCGAAAGAAUUAC
>NC_012472
-UCUUUUUAAUACUGUCUACUUGACAGGGAUAAGACC-AUUUUCGGUCUUUUUUUUCUUUAUGAUAUAGAAAGUCAUGUUAGAAUGUAGUUGAAAACAUGAAGGUUCGAAAGAAUUAC

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...........(((((.-...(((((((((((((((.......)))))))))))))))).....)))))...(((((((..............))))))).(((((....)))))..
.....((((((......-...(((((((((((((((.......))))))))))))))))((((.......)))))))))))((((........))))...(((((....)))))..
.....((((((((((.-...(((((((((((((((.......)))))))))))))))).....)))))).......))))))..(((((((((..........)))).....))))))


#glgA
```

```
#The following shows an alignment in 5'-UTR of glgA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_004722
CAGUGGGGGCUUUU----CCUCCACUGAUUAAAGUUUUAAUUUAAAUGAAAACUCGAAGGAGGAAGCUGCAAGAGGAGUA---------AUAAAAACUUUUCGCGCAGUGGGACAAC
>NC_011772
CAGUGGGGGCUUUU----CUCCCACUGAUUAAAGUUUUAAUUUAAAUGAAAACUCGAAGGAGGAAGCUGCAAGAGGAGUA----------UAAAAACUUUUCGCGCAGUGGGACAAC
>NC_003909
CAGUGGGGG-GUUUU----CCUCCACUGAUUAAAGUUUUAAUUUAAAUGAAAACUCGAAGGAGGAAGCUGCAAGGGAAGUA---------GUAUAAGCUUUUCGUGCAGUGGGACAAC
>NC_011969
CAGUGGGGG-UUUUU----CCUCCACUGAUUCAAGUUUUAAUUUAAAUGAAAACUCGAAGGAGGAAGCUGCAAGGGAAGUA---------GUAUAAGCUUUUCGUGCAGUGGGACAAC
>NC_003997
CAGUGGGGG-UCUUU----CCUCCACUGAUUAAAGUUUUAAUUUAAAUGAAAACUCGAAGGAGGAAGCUGCAAGGGAAGUA---------GUAGAAGCUUUUCGUGCAGUGGGACAAC
>NC_010184
UAGUGGGGGAUUUAGAAAACCCCCACUAAUUAAGGUUUUACUCUAUAUGAAAACUUGAAGGAGGAAGCUGUAAGAAGAGCGAUUUAUGAUGUAUACGCUUUUCGUGCAGUGGAACAAC

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((((((.....----)))))))))).....((((((..........))))))...........((((((.(((((((.---------.....)))))))).)))))).......
(((((((((.....----)))))))))).....((((((..............((((((.....((((.......)))---------)).....)))))).....)))))))...
.............((----(((((...........(((((.......)))))).......)))))))((((((.(((((((.---------.....)))))))).)))))).......


#valS
#The following shows an alignment in 5'-UTR of valS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012659
UUGUCCGUUAUCAAGU-UAAGAGUAUAA--GCAAAUUCCUGGAUUUGUUUGUAAAUAAAGUGGUACCGCGAUGU--CCCUCGUCCUUUUUU-----GGAUGAGGGACAUUUUUUA
>NC_004722
UUGUCCGUUAUCAAAU-UAAGAGUAUAA--GCAAAUUA-UGAAUUUGUUUGUAAAUAAAGUGGUACCGCGAUGU--CCCUCGUCCUUUUU------GGAUGAGGGACAUUUUUUA
>NC_006274
UUGUCCGUUAUCAAAU-UAAGAGUAUAA--GCAAAUUCCUGAAUUUGUUUGUAAAUAAAGUGGUACCGCGAUGU--CCCUCGUCCUUUUUU-----GGAUGAGGGGCAUUUUUUA
>NC_003909
UUGUCCGUUAUCAAAU-UAAGAGUAUAA--ACAAAUUCCUGAAUUUGUUUGUAAAUAAAGUGGUACCGCGAUGU--CCCUCGUCCUUUUUUU----GGAUGAGGGGCAUUUUUUA
>NC_009674
UAGACCGUUAUCAAAU-GAAGAGUAUAA--ACAAAUUU-UGCAUUUGUUUGUAAAUAAAGUGGUACCGCGAUGU--CCCUCGUCCUUUUUU-----GGAUGAGGGGCAUUUUU-A
>NC_006270
AGUCCCGUUAUCCCAUUUAAGUGCGUGAAUGCGUUUUUUUUG---CAUUCAUGAAAAAAGUGGUACCGCGAGAGAGUUCUCUUCGUCCUUUUAACAGGAUCAAGAGGACUCUUU-

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
........(((((...-......(((((--(((((((....)))))))))))).......)))))....(((((--(((((((((.....-----)))))))))))))).....
.(((((.(((((....-.((((((((--(((((((....)))))))))))).............((((...-...)))).)))))..-----.)))))).)))))).......


#rtpA
#The following shows an alignment in 5'-UTR of rtpA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
CAAGAAAGGAGUAUUGAAA-------CCGUGU-GUUUCUGUACUUUUUGAGAGAAUGGCUAUCAGCCGUUAAUAAAGGUGGCACCGCGAAAACCUCGUCCUUUG-AU-GGACGGGGUU
>NC_014551
CAAGAAAGGAGUAUUGAAA-------CCGUGUUGUUUCUGUACUUUUUGAGAGAAUGGCUUUCAGCCGUUAAUAAAGGUGGCACCGCGAAAACCUCGUCCUUUG-AU-GGAUGGGGUU
>NC_000964
CAAGAGAGGAGUAUCGAAA-------C-AUAGGUUUUCUGUACUUA--GAGUGAACGGCGUAUAGCUGUUAAUAAAGGUGGUACCGCGAGACCCUCGUCCUUUGCAUAGGACGGGGGU
>NC_006270
CAAGAGAAGCGUAUCGAAAGGGCUGACUGUCCCCUUUCCGUAUGUUCCGAGCGAAUCGUUAU--GCGAUUAAUAAAGGUGGUACCGCGAGACCCUCGUCCUUUU-GU--GACGGGGGU
```

```
#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.......(((((((.((((-------.......)))).)))))))).......((((((.....))))))....................((((((((((....-..-))))))))))
.......(((((((.((((-------.......)))).)))))))).......((((((.....))))))..((((((.......(((.....)))))))))-..-..........
..(((((.............------.......)))))........................((((((......))))))........((((((((((....-..-))))))))))


#gabP
#The following shows an alignment in 5'-UTR of gabP and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
GAC--GAGAAAAAAUGUCAUAUUUUCUUACAUCAUUUUCAACUGCCUGUGGCAUU-UAUAUAG-AAUAAUACUUGUCGGAAUAUUCAGCAUAA
>NC_003909
AUCGGGCAUUUACGGGGAGUAGAUUCCCACCUAACUUCUUUGCUUCCCCUGAAUUUUGAGUGGGGGUCUUA-CUGCCCGUUAAUGCGGGGCAA
>NC_005957
AUCGGGCAUUUACGGGCAGUAGAUUCCCGCCUAACUGCUUUGUUUCCGCUGAAUUUGGAGUGGGGGUCUUA-CUGCCCGUUAAUGCGGGGCAA
>NC_006274
AUCGGGCAUUUACGGGCAGUAGAUUCCCGCCUAACUUCUUUGUUUCCGCUGAAUUUGGAGUGGGGGUCUUA-CUGCCCGUUAAUGCGGGGCAA
>NC_011658
AUCGGGCAUUUACGGGCAGUAGAUUCCCGCCUAACUUCUUUGCUUCCGCUGAAUUUUGAGUGGGGGUUUUA-CUGCCCGUUAAUGCGGGGGAA
>NC_012659
AUCGGGCAUUUACGGGCAGUAGGUUCCCGCCUAACUUCUUUGUUUCGGCUGAAUUUUGAGUGGGGGUCUUA-CUGCCCGUAAAUGCGGGAUAA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....(((((.(((((((((((.................(((((((((........)))))))))))))-)))))))).)))))).......
..(((((.((((((.....)))))).))))............(((((((((........)))))))))....-...(((((....)))))....
..((((((............(((((((((.............................)))))))))..-.)))))).............
..((((((.....((((...........))))).........(((((((((........)))))))))....-.)))))).............
..(((((.((((((.....)))))).))))..............(((((..............((((....-..))))......)))))))...


#ribD
#The following shows an alignment in 5'-UTR of ribD and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
--CUAAAGCCCCGAA-------UUUUUUAUAAAUUCGGGGC-U-----UUUUUGACGGU--AAAUAACA--AAAGAGGGGAGGGAAACAAAUGGAAGA
>NC_003909
AACUAUAUUUCUAGAAAUCACGUCUCCCAAACCCCAAGGAUAU-AAAAUCCUUGGGGUUUUUGAUUUUUUCAGGAGAGGUGAAGAGAAUGACAGAUCA
>NC_006274
AACUAUAUUUCUAGAAAUCACGUCUCCCAAACCCCAAGGAUAUUAAAAUCCUUGGGGUUUUUGAUUUUUUUAGGAGAGGUGAAGAAAAUGACAGAUCA
>NC_003997
AACUAUAUUUCUAGAAAUCACGUCUCCCAAACCCCAAGGAUAUUAAAAUCCUUGGGGUUUUUGUUUUUUUUAGGAGAGGUGAAGAAAAUGACAGAUCA
>NC_011658
AACUAUAUUUCUAGAAAUCACGUCUCCCAAACCCCAAGGAUAUUGAAAUCCUUGGGGUUUUUGAUUUUUUUAGGAGAGGUGAAGAAAAUGACAGAUCA
>NC_011772
AACUAUAUUUCUAGAAAUCACGUCUCCCAAACCCCAAGGAUAUU-AAAUCCUUGGGGUUUUUGAUUUUUUUAGGAGAGGUGAAGAAAAUGACAGAUCA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.......(((((.....((((.(((((.(((((((((((((.....)))))))))))))).............)))))).)))))))...........
.....((((((((((((((.........((((((((((((.....)))))))))))))).)))))))).....)))))))................
```

```
#pyrG
#The following shows an alignment in 5'-UTR of pyrG and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011658
UGCUCCCUACUUAUUACUUUAUGUGAUGAGGGGAGCAAUUUUCUUUUUUGUUUUUUGUUAGAAAAUAAAAAGAGUCUAACAAUAAGAUGGAUAC
>NC_009674
UGCUCCCUACUUAUUGCGUUUUGUAAUGAGGGGAGCAAUUUUCUUUUUUGUUUUUUGUUAGAAAAUAAAAAGAGUCUAACAAUAAGAUAGAUAC
>NC_011725
UGCUCCCUACUUAUUACUUUUUGUGAUGAGGGGAGCAAUUUUCUUUUUUGUUUUUUGUUAGAAAAUAAAAAGAGUCUAACAAUAAGAUGGAUAC
>NC_014171
UGCUCCCUACUUAUUACUUUUUGUGAUGAGGGGAGCAAUUUUCUUUUUUGUUUUUUGUUAGAAAAUAAAAAGAGUCUAACAAUAAGACGGAUAC
>NC_004722
UGCUCCCUACUUAUUACUUUUUGUGAUGAGGGGAGCAAUUUUCUUUUUUGUUUUUUGUUAGAAAAUAGAAAGAGUCUAACAAUAAGAUGGAUAC
>NC_014639
CGCUCCCU--------UUCAAGAAAUUGAAAGGGAGCUUUCUUAUUUUCACCCCGAUAUACGGUAUUUUCUU--UGCAUAA-UCAUUUAGAAAU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((((..(((((((.....)))))))))))))).........((((((((((((((.............)))))))).))))))))...
(((((((..(((((((.....)))))))))))))).......((((((((((((...))))))))))))).(((((.........)))))..


#guaA
#The following shows an alignment in 5'-UTR of guaA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
UAAAGAGCGGAAGACUAUCUUUCUUUAUAAAGCCAGACCCCUGCCUUUUCUUUGUU-AUAGACUAGAGGCGGAGGACUGGCUUUUUUUAUUAUAUUGGUAAUGCUUUUCGCCAAAUU-
>NC_008600
UAAAGAACGGAAGACUAUCUUUCUUUAUAAAGCCAGACCCCUGCCUUUUCUUUGUU-AUAGACUAGAGGCGGAGGACUGGCUUUUUUUAUUAUAUUGGUAAUGCUUUUCGCCUAAUU-
>NC_011658
UAAAGAGCGGA-GACUAUCUUUCUUUAUAAAGCCAGACCCCUGCCUUUUCUUUGUU-AUAGACUAGAGGCGGAGGACUGGCUUUUUUUAUUAUAUUGGUAAUGCUUUUCGCCUAAUU-
>NC_011772
UAAAGAGCGGA-GACUAUCUUUCUUUAUAAAGCCAGACCCCUGCCUUUUCUUUGUU-AUAGACUAGAGGCGGAGGACUGGCUUUUUUUAUUAUAUUAGUAAUGCUUUUCGCCAAAUU-
>NC_010184
UAAAGAGCGGAAGACUAUCUUUCUUUAUAAAGCCAGACCCCUGCCUUUUCUUUGUC-AUAGACUAGAGGCGGAGGACUGGCUUUUUUUAUUAUAUUAGUAAUGCUUUUCGCCAAAUU-
>NC_009674
UAAAGAGCAACAUACUAUCUUU----AUAAAGCUAGACUCCUGCCUUUUCUUUAUUUAUAGACGAGAGGUGGGGGACUGGCUUUUUUUAUUAUAUUGGUAAUGCUUUUUGCCUAAUUU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..(((((((....((((...........((((((((....((((((((........-.......))))))))....)))))))).....))))..)))))))).........-
......((((((..............(((((((...........(((((((((-..........)))))))))))))))))...((((((....)))))).)))))))......-
......((((((((((.......((((((((((.......((((((((..-......)))))).)))))).)))))).......)))))).)))).....)))))))......-
..(((((.((((((...)))))).......((((((....((((((((........-.......))))))))....)))))))))))((((((....))))))..............-
.(((((...........)))))......((((((((.......((((((((..-......)))))).)))))).))))))))..((((((...))))))................-


#atpD
#The following shows an alignment in 5'-UTR of atpD and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011773
CUAGAUUCAAUAAAAAGUGGAAGCGGCUCUGUCAAAAGAGUCGCGUAAGCU-AUAAACUAUAAAAAAUGAAAAGCUAACUGCUCGUAGAAAGUUGGCUAAUUAAAAGAAAGCUAGGAG
>NC_005957
CUAGAUUCAAUAAAAAGCGUAGGCGGCUCUGUCAAAAGAGUCGCGUAAGCU-AUAAACUAUAAAAAAUGAAAAGCUAACUGCUCGUAGAAAGUUGGCUAAUUAAAAGAAAGCUAGGAG
>NC_011658
```

```
-------UAAUAAAAAGCGUAGGCGGCUCUGUCAAAAGAGUCGCGUAAGCU-AUAAACUAUAAAAAAUGAAAAGCUAACUGUUCGUAGAAAGUUGGCUAAUUAAAAGAAAGCUAGGAG
>NC_003909
CUCGAUUCAAUAAAAAGCGGAAGCGGCUCAUUCAAAAGAGCCGCGUAAGCUUAUAAACCAUAAAAAAUUAAAAGCUAGCUGCUCGUAGAAAGUUGGCUAAUUAAAAGAAAGCUAGGAG
>NC_011725
CUGGAUUCAAUAAAAAGCGGAAGCGGCUCUUUCAGGAGAGUCGCGUAAGCU---AAACUAUAAAAAAUUAAAAGCUAAUCUCUCUGAUAGAGGUAGCUAAUUAAAAGAAAGCUAGGAG
>NC_011772
CUAGAUUCAAUAAAAAGCGGAAGCGGCUCUUUCAAAAGAGUCGCGUAAGCU---AAACUAUAAAAAAUUAAAAGCCAACUUCUCUUAGAAAGCUGGCUAAUUAAAAGAAAGCUAGGAG

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....................(((((((((....)))))))))...((((-....................(((((((..........)))))))).........))))).....
...............(((((..(((((((((....)))))))))...((((-....................)))).))))).........((((((..........)))))))...
.......................(((((((((....((((......((((-....................)))).....)))))...)))))..)))).................


#nadD
#The following shows an alignment in 5'-UTR of nadD and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_004722
GACUAGCAUGCGCUAUUUUUAUCGUUUAUGCGUAAUGAUGUAGAGAGCGAAACCAAUUGACUUUUAUUAAUAGCAA-CUCUCUUCAUUCCUAACCGAGGAGAGUUGCUGUAU
>NC_011772
GAUUAGCAUGCGCUAUUUUUAUCGCUGAUGCGUAAUGAUGUAGAGAGCGAAACCAAUUGACUUUUAUUAAUAGCAA-CUCUCUUCAUUCCUAACCAAGGAGAGUUGCUGUAU
>NC_012581
AAAUAGCAUACGCUAUUUUUAUCACUA----GUAAUGGUGUAGAGAUCGAAACCAAUUGACUUUUAUUAACAGUAAACUCUCUUCGGAUGGAAAUGAAGAGAGUUGCUGUAU
>NC_011658
AAAUAGCAUAUGCUAUUUUUAUCACUA----GCAAUGGUGUAGAGAUCGAAACCAAUUGACUUUUAUUAACAGUAAACUCUCUUCGGAUGGAAAUGAAGAGAGUUGCUGUAU
>NC_003909
GAUUAGCAUGCGCUAUUUUUAUCGUUGAUGCGUAAUGAUGUAGAGAGCGAAACCAAUUGACUUUUAUUAAUAGCAA-CUCUCUUCUGUUAGGAAUGAAGAGAGUUGCUGUAC
>NC_010184
GAUAUACGUGAGUUAUUUC-GUAAUGGACGCUUGAU-AUGUAGAAAGCGAAACCAAUUGACUUUUAUUAACAGUGGGCUCUCUUCGAAUUUGUAUGGGGAGAGUUGCUGUAU

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...((((....))))(((((((.((((........)))))))))).......................(((((((.((((((((..........)))))))))))))))..
........(((((((((................)))))))))((((.............)))))....(((((((.((((((((..........)))))))))))))))..
...((((((..((((.....(((((...........)))))).....))))..........................((((((((..........)))))))))))))...


#pel
#The following shows an alignment in 5'-UTR of pel and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
----AGCAAGGAAAAAACC-AAAAGGCCAA-UGUCGGCCUUUUGG--UUUUUUUGC--GUCUUUGCGGUGGG-AUUUUGCAGAAUGCCGCAAUAGGAUAGCGGAACAUUUUCGGUUCU
>NC_014479
----UGCAGGGAUAUAACCCAAAAGGCCAA-CUUCGGCUUUUUGGGUUUUUUUUGC--GUCUUUGCGGUGUAUGUGUUGCAGAAUGCCGCAAUAAGAUAGCGGAACAUUUUCGGUUCU
>NC_009725
-----GCU-GAACAGAUCCCAAGGGGU----UUUCGGUCCCUUGGGAUUUUUUUGC--GUUUCCGCAAUAAA------ACCGAAAGGCACAUU-------CUGUACAUUUUCGGUGCU
>NC_014551
-----GCU-GAACAGAUCCCAAGGGGU----UUUCGGUCCCUUGGGAUUUUUUUGC--GGUUCCGCAAUAAA------ACCGAAAGACACUUU-------CAGUACAUUUGCGGUGCU
>NC_006270
UGCUAUUUCAGAAAAAUAUUAAGAGUCUGUUUUUUUAUUCGUUGAUAAAAAUGAACAGGCAUUUGUCAUAAAAUUUGAAAAUGGUGUCACAAAAAAUAGGAGGAAAAUAUGUUGUUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
----.........((((((((((((...-.....))))))))))))).((((--(....)))))....-.............................(((((.......)))))
```

```
----.(((((((..(((((((((((...-.....)))))))))))))))))--..............-.....(((((((.....)))))))...
```

```
#ipk
#The following shows an alignment in 5'-UTR of ipk and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
ACUUUCUAUGCUACGGUAGCCGAGGAAUGAUUCCUCGGCUUUUUGUACUAUAAAAGGUGCAUCAUUUUACAUAAGUAGUUUCAUUCUGAAUGCUUUUC
>NC_006274
ACUUUCUAUGCUACGGUAGCCGAGGAAUAAUUCCUCGGCUUUUUGUACUAUAAAAGGUGCAUCAUUUUACAUAAGUAGUUUCAUUCUGAAUGCUUUUC
>NC_011969
ACUUUCUAUGCUACGGUAGCCGAGGAGUGAUUCCUCGGCUUUUUGUACUAUAAAAGGUGCAUCAUUUUACAUAAGUAGUUUCAUUCUGAAUGCUUUUC
>NC_004722
ACUUUCUAUGCUACGGUAGCCGAGGAGACAUUCCUCGGCUUUUUGUACUCUAAAAGGUGCAUCAUUUUACAUAAGUAGUUUCAUUCUGAAUGCUUUUC
>NC_010184
ACUUUCUAUGCUACGGUAGCCGAGGAGAGAUUCCUCGGCUUUUUGCACGCUAAAAGGUGCAUCAUUUGACAUAAGUAGUUUCAUUCUGAAUGCUUUUC
>NC_009674
A-UUCCUAUGCUGCGGUAGCCGAGGUGAAAAUCCUCGGCUUUUUGCACGCCAAAAGGUGCAUCAUUUUGCAUAAGUAGUUUCAUUCUACAUGCUUUUC

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.........(((((...((((((((((...)))))))))))...((((((......))))))..............)))))..((((...)))).....
(((((......(((((.((((((((((...)))))))))))..)))))......)))))..............(((((..((((...)))))))))...
.......((((.......(((((((((...)))))))))))((((.........)))))).))))(((((....................)))))......
.....((((..(((((.((((((((((...)))))))))))..)))))......((((((...))))))......))))...((((...)))).....
```

```
#serS
#The following shows an alignment in 5'-UTR of serS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_002570
CCGGUUC---UGGCCGUUAUCCAGAU--GAGUGGUCAGCGGU-----AUAGCU---GGCACAAGGGUGGCAACGCGGGU--GCUCUCGUCCCUUUUCUUUAG-GGAUG
>NC_014479
ACGGGAUAA----CCGUUAUGUGUG--AAAGUGGAAAAUGAGUCUUU-GGCUUGUUUUCAUCAGGGUGGCAACGCGAGA--GCUCUCGUCCCUUUAU----GGGGAUG
>NC_000964
ACGGGAUAA----CCGUUAUGUUUG--AAAGUGGAAAACGAGUCUUU-GAUUUGUUUUCAUCAGGGUGGCAACGCGAGA--GCUCUCGUCCCUUUAU----GGGGAUG
>NC_009725
ACGGGAAAA----CCGUUAUGUGUU--AAAGCGGGAAGCAAGUGUG--AGCUUGUUUUCAUCAGGGUGGCAACGCGAGA--GCUCUCGUCCCUUUUA----GGGGAUG
>NC_015634
ACGGGAAAAAA-CCCGUUAUCCUUAC-AAAGCGGAAAAC----------UCUUGUUUUCAUUUGGGUGGCAACGCGGGUUCACUCUCGUCCCUGUUUUC-AGGGCGGG
>NC_014019
UCGGUUCA----UCCGUUAUCUG-GUUUAAGAGGAAGGCUU------AUUUUAGCUUUCAUUAGGGUGGCAACGCGGGUAAACUCUCGUCCCUUU-CAU--GGGGAUG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((........---.))))........-......((((((((((..--.)))))))))...((((.......(((((.--...)))))))))......--.......
((((........---.))))........-......((((((((((..--.)))))))))...(((((.............--)))))))))))))).....--)))))))
..(((((.----.(((((........-..)))))).............--..............(((((.............--)))))..)))))......--.......
((((((........((((........-......((((((((((..--.)))))))))))...........))))....---..))))))..........--.......
.............(((((......-(((((((.............--..)))))))).....)))))....((((.--...)))))))))).....--))))...
```

```
#rho
#The following shows an alignment in 5'-UTR of rho and the preditced ConSLOpt structures produced by RNAConSLOpt
```

```
>NC_012581
AAAAAGCGAAGACAAAUUUUCUUGUCUUCGCUUCU-UGUAUUUGUGUUUCAACGUAUUGUUAAAACUAGAUAAAAGGGUUACAAUAGUGAAUAUUACCCUACUUGAACUUA
>NC_011725
AAGAAGCGAAGACAAAUUUUCUUGUCUUCGCUUCU-UGUAUUUGUGUUCCAACGUAUUGUUAAAACUAGAUAAAAGGGUUACAAUAGUGAAUAUUACCCUACUUGAACUUA
>NC_011773
AAAAAGCGAAGACAAAUUUUCUUGUCUUCGCUCCUGUGUAUUUGUGUUUCAACGUAUUGUUAAAACUAGAUAAAAGGGUUACAAUAGUGAAUAUUACCCUACUUGAACUUA
>NC_010184
AAAAGGCGAAGACAAAUUUUCUUGUCUUCGCUUCU-UGUAUUUGUGUUUCAACGUAUUGUUAAAACUAGAUAAAAGGGUUACAAUAGUGAAUAUUAUCCUACUUGAACUUA
>NC_014335
-----GCGAAGACAAAUUUUCUUGUCUUCGCUUCU-UGUAUUUGUGUUUCAACGUAUUGUUAAAACUAGAUAAAAGGGUUACAAUAGUGAAUAUUACCCUACUUGAACUUA
>NC_009674
CACAAGCGGAGACAAAAUUUUUUGUCUUCGCUUGU-UGUAUUUGUGUGACAACGUAUUGUUAAAACUAGGCAAAAGGGUUACAAUAGUGAAUAUUAUCUUACUUGAACUUA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...((((((((((.....))))))))))..-..((((((.((((.((((...)))).)))))))))..(((((...((((.....)))))))))..........
...((((((((((.....))))))))))..-.......((((((.....((((((...((((.........)))))))))..)))))).................
...((((((((((.....))))))))))..-......((((((....)))))((((((.......)))))..(((((.....((((..........))))..)))))).
.......(((((....)))))).....(((((((((-(.((((((.((((.((((...)))).)))))))))).)))).........)))))....................
...((((((((((.....))))))))))..-...........((((((....((((((.......)))))).(((((((((....)))).....)))))..)))))....


#tyrZ
#The following shows an alignment in 5'-UTR of tyrZ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_002570
-GGUGAAGAAACGGGGCAUGCCGUUAUCAUGUUGGAGUUGGGAGAAAUGCUACUAUUUCCCAAAAAGGGUGGUACCGCGAGUAAG-----CUCGUCCCUUAUGUGGGAGGGGCUUU
>NC_014479
GUAGCAGAGAACGG--GAAACCGUUAUUCGAA--CGAGCGGAAG--AC-----AAAGUCUCAACCAGGGUGGUACCGCGUGCAUU-GAGCCACGUCCCUUAUCGGGAUUGGCUCUU
>NC_016047
GUAGCAAAGAACGG--GAAACCGUUAUUCGAA--UGAGCGGAAG--AC-----GAUGUCUCAACCAGGGUGGUACCGCGUGCAUU-GAGCCACGUCCCUUAUCGGGAUGGGCUCUU
>NC_000964
GUAGCAAAGAACGG--GAAACCGUUAUUCGAA--UGAGCGGAAG--AC-----AAUGUCUCAACCAGGGUGGUACCGCGUGCAUU-GAGCCACGUCCCUUAUUGGGAUGGGCUCUU
>NC_006270
GUAGCAAAGAACGG--GAAGCCGUUACCGGAAAUUGAGCGGAAG--AUG----AAGGUCUCAAUCAGGGUGGUACCGCGUGCAUUUGAGCCACGUCCCUUAUCGGGAUGAGGUUCU
>NC_006582
-CGGCAAAGAACGGA-GAAGCCGUUAUCGAA---UGAGUGGGAGGCACG----AAUGCCUCAACAAGGGUGGUACCGCGACAAGU-----UCGUCCCUUAUGGGGA-GGGGCUUU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.........(((((--....)))))......--.((((.....--.........(((((((....((((.......(((((....-....)))))))))....)))))))..)))).
.........(((((--....)))))......--...((((.((--((.-------...))))..((((...)))).)))).......-......((((((.....))))))......
............((--((.((((((.......--((((.....--..........)))).....)))))).....((((....-....))))))).................
............((--((..(((((.......--..)))))...--..........)))).((((...)))).............-......((((((.....))))))......
............((--((..(((((.......--..)))))...--..........)))).....((((.......(((((....-....)))))))).................


#polA
#The following shows an alignment in 5'-UTR of polA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UGUCUU-CUCUUAUAGUU--------CACGUAUUUUCCUUUCAAAUUGAACUUUGUUAAAUAAGAGGAGCUA--AUGACUAUGUAAGAGAUGAAUGGAAGCCUGA--GGCUUCU
>NC_011725
UGUUUUAUAUAUGAAAGAAAA-UAGCCGUUAUUUUUCUUCUCUCUAUUAGUCAUGUUAAAUAGAGAGAGGAAAGGAACGGUUUUUUU-CUGUGAAAAAAAUCAUUUCAAAUUUG
```

```
>NC_011772
UGUUUUAUAUAUGAAAGAAAA-GAACCGUUAUUUUUCUUCUCUCUAUUAGUCAUGUUAAAUAGAGAGAGGAAAGGAACGGUUUUUUU-CUGUGAAAAAAAUCAUUUCAAAUUUG
>NC_012659
UGUUUUAUAUAUGAAAGAAAA-UAACCGUUAUUUUUCUUCUCUCUAUUAGUCAUGUUAAAUAGAGAGAGGAAAGAAACGGUUUUUUUUCUGUGAAAAAAAUCAUUUCAAAUUUG
>NC_006274
UGUUUUAUAUAUGAAAGAAAA-UAACCGUUAUUUUUCUUCUCUCUAUUAGUCAUGUUAAAUAGAGGGAGGAAAGAAACGGUUUUUUU-CUGUGAAAAAAAUCAUUUCAAAUUUG
>NC_008600
UGUUUUAUAUAUGAAAGAAAAAUAACCGUUAUUUUUCUUCUCUCUAUUAGUCAUGUUAAAUAGAGAGAGGAAAGAAACGGUUUUUUU-CUGUGAAAAAAAUCAUUUCAAAUUUG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...............((((((-.(((((((.((((((((((((((((((.........)))))))))))))))))))))))).))))-)).(((((.......)))))......
..((((((....)))))).....-.........((((((((((((((((((.........)))))))))))))))))...(((((((((-(...)))))))))).............


#prpD
#The following shows an alignment in 5'-UTR of prpD and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012659
-AAACAACUGGGGAGUUGUUAGCACCGCCCGCCAGAUGGGUGUUUGACCGACACCCAUCUUAAUAAUAACGAAUUUUCGACAGAAAGG
>NC_009674
AAAACAACUGGGGAGUUGUUAAGGUCGCCCGCCAGAUGGGUGUUUGACCGACACCCAUCUUAAUAAUAACGAAAUUUCGACAGAAAGG
>NC_011658
-GAACAACUGGGGAGUUGUUAGCACCGCCCGCCAGAUGGGUGUUUGACCGACACCCAUCUUAAUAAUAACGAAUUUUCGACAGAAAGG
>NC_010184
-AAACAACUGGGGAGUUGUUAGCGCCGCCCGCCAGAUGGGUGUUUGACCGACACCCAUCUUAAUAAUAACGAAUUUUCGACAGAAAGG
>NC_003909
-GAACAACUGGGGAGUUGUUAGCGCCGCCCGCCAGAUGGGUGUUUGACCGACACCCAUCUUAAUAAUAACGAAUUUUCGACAGAAAGG
>NC_006274
-GAACAACUGGGGAGUUGUUAGCGCCGCCCGCCAGAUGGGUGUUUGACCGACACCCAUCUUAAUAAUAACGAAUUUUCGACAGAAAGG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
-.(((((((....)))))))............((((((((((.....)))))))))).............(((((....))))).
-.......((((..(((((((...((((((.....)))))).)))).)))).)))................(((((....))))).
-.(((((((....)))))))).....((((((.....)))))).((((.............................)))).........
-.......(((((((((((....((((((.....)))))).....................)))))))...)))))).........
-.......((((((.((((((............((((((((((.....)))))))))))).....)))))).)))))).........


#rpsJ
#The following shows an alignment in 5'-UTR of rpsJ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
-UUUUAAAUAAGUC-UUGCAACAUGCGCCUAUUUUCUGUAUAAUGGUGUAUGUUGGUCUUGACUGCGAUGAAGUGAGAGGUUGCUGACACACCCGGCCGCUUUGCCAUGGCAA-GGUG
>NC_006270
UAUUCAAUAUUACC-UUGCAACAUGCCUAUAAAUUUUGUAUAAUAGUGCAUGUUGGUCUUGACUGCGAUGAAGUGAGAGGUUGCUGACACACCCGGCCGCUUUGCCAUGGCAAGGUGA
>NC_014019
UUUUUAACUUUAUUGUUGCAAUAUGAACCCAUUUUUAGUAUAAUAA-AAAUGUUGGUCUUGACUGCGAUGAUGCGGAAGGUUGCCGACACACCCGGCCGCUUUGCCAUGGCGAG-UG-
>NC_009725
UCUUUAAAUAAACC-UUGCAACAUGCGUCUAUUUUCUGUAUAAUAGUGUAUGUUGGUCUUGACUGCGAUGAAGUGAGAGGUUGCUGACACACCCGGCCGCUUUGCCAUGGCAAGGUGA
>NC_014639
-AUUUAAUUAGGUC-UUGCAACAUGCGUCUAUUUUUUGUAUAAUAGUGCAUGUUGGUCUUGACUGCGAUGAAGUGAGAGGUUGCUGACACACCCGGCCGCUUUGCCAUGGCAAGGUGA
>NC_009848
```

```
-UAUCCGAUUUAUUAUUGCAACACGCAGGCCAAUUUGGUACAAUAGUGCAUGUUGGUCUUGACUGCGAUGAAGUGAGAGGUUGCUGACACACCCGGCCGCUUUGCCAUGGCAAGGUGA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..........((((-((((.(((((((.................)))))))))((((....................(((((.(((.......)))).)))))))))..)))))))).
..............-...(((((((((.................)))))))))).........(((((..........)))))............((((((((....)))))))).
............((-((((....((((.............(((((.....)))))........))))).....))))))....(((.......)))(((((((((....)))))))).
..............-..(((((.................(((((.....))))).(((((............))))).)))))).....((((..((((........))))..)))))).
..............-.((((...))))........................(((((((...((((.............)))))))))))((((..((((........))))..)))))).


#yvbW
#The following shows an alignment in 5'-UTR of yvbW and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
UGGAUUCCGGACAUUCGGGAUCAACAAGAGUGGUACCGCGGCU-GCCU-GAGGCACGCCUCUCUUUUCCCAA----------A-GAGGCGGCGUGCUUUUUUAUGUGAUGAACA-CUU
>NC_014551
UGGAUUCCGGAUAUUCGGGAUCAACAAGAGUGGUACCGCGGCU-GCCU-GAGGCACGCCUCUCUUUUCUAAA----------AAGAGGCGGCGUGCUUUUUUAUGUGAUGAACAAUUU
>NC_000964
AGGAUUCU--UCAUGAAGAAUCAACAAGAGUGGUACCGCGGUCAGCCG-AAGGCUCGUCUCUCUUUAUCUAUUAGAUUAGGUAGGAGACGGCGGGCUUUUUUGUUUU-UGAAAA----
>NC_014479
UGGAUUCU--UCAUGAAGAAUCAACAAGAGUGGUACCGCGGUCAGCCG-AAGGCUCGUCUCUCUUUAUCUAUUAGAUUAGAUAGGAGACGGCGGGCUUUUUUGUUUU-UGAAAA----
>NC_006270
UGGAUUCUUGGUAU--AGGAUCAAAAAGAGUGGUACCGCGGUAAGCUUCAAAGCUCAUCUCUCUUUAUCUUCAAAUUGAAGAGGGAGACGGUGAGCUUUUUUAUUUU---AAUA----

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..(((((((........)))))))..(((((((((...............-((((((((((((((((.................)))))))).)))))))))).)))))))-)).....----
..(((((((........)))))))...((((((.............(((.-..)))(((((((((.....................)))))))))...)))))).......-......----


#mtnK
#The following shows an alignment in 5'-UTR of mtnK and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_003909
----------------------------------------------------------------UGGAAAGAGGUUUUUCUACGUCAGAAAAACCUCUGAAUA
>NC_005957
CCAGCAGAAAGUAAAACUUUCUGGCAGAUAAGAGGGGAGAAGAUAAACUUCAAACCUCUUCUUAGUGGAAAGAGGUUUUUCUACGUCAGAAAAACCUCUGAAUU
>NC_006274
CCAGCAGAAAGUAAAACUUUCUGGCAGAUAAGAGGGGAGAAGAUAAACUUCAAACCUCUUCUUAGUGGAAAGAGGUUUUUCUACGUCAGAAAAACCUCUGAAUG
>NC_011658
CCAGCAGAAAGUAAAACUUUCUGGCAGAUAAGAGGGGAGAAGAUAAACUUCAAACCUCUUCUUAGUGGAAAGAGGUUUUUCUGUGUUAGAAAAACCUCUGAAUU
>NC_010184
CCAGCAGAAAGUAAA-CUUUCUGGCAGAUAAGAGGGGAGAAGAUAAACUUCAAACCUCUUCUUUAUGGAAAGGGGUUUUUCUAUUUUAGAAAAACCUCUGAAUG
>NC_009674
CCAGCAGAAAAUGAA-UUUUCUGGCAGAUAAGAGGGGAGAAGAUACACUUCAAACCUCUUCUUCAUGGAAAGAGGUUUUUCUUAUGUUGAGAAACCUCUGAAUU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....((((((((...))))))))......((((((...((((.....)))))...)))))).........((((((((((((.....))))))))))))).....
....((((((((...))))))))......((((((...((((.....)))))...)))))))....((((((((....))))))))).(((((......)))))...
....((((((((...))))))))).......(((((...((((.....)))))))))))))))).........))))))))).................)))))).....
................((((((........))))))((((((.............)))))))).......((((((((((((.....))))))))))))).....
....((((((((...))))))))).......(((((.((((((.............)))))))).((((((((....))))))))).........)))))).....
```

```
#cypA
#The following shows an alignment in 5'-UTR of cypA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011725
AGUGGGAGAGUGAAACGAUUUUACUCUCUCACUUUUUUAUUUUUCAAUAUACGAAGUAAAUUUUGAUUAAAAAUUUACAAUUUUCGCGUUUUUAUUAGAGUA
>NC_014171
AGUGGGAGAGUGAAACGAUUUUACUUUCUCACUUUUUUAUUUUUCAAUAUACGAAGUAAAUUUUGAUUAAAAAUUUACAAUUUUCACGUUUUUAUUAGAGUA
>NC_003909
AGUGAGGGAGUGAAACGAUUUUACUUUCUCACUUUUU-AUUUUUCAAUAUACGAAGUAAAUUUUGAUUAAAAAUUUACAAUUUUCGCGUUUUUAUUAGAGUA
>NC_011772
AGUGGGAGAGUGAAACGAUUUUACUCUCUCACUUUUUUAUUUUUCAAUAUACGAAGUAAAUUUUGGUUAAAAAUUUACAAUUUUCACGUUUUUAUUAGAGUA
>NC_011658
AGUGAGAGAGUAGAAAGAUUUUACUCCCUCACUUUUUUAUUUUUCAAUAUACGAAGUAAAUUUCGUGUAAAAAUUUACAAUUUUCUCGUUUUUGUUAGCGUA
>NC_011773
AGUGAGAGAGUAGAAGUAUUUUACUCUCUCACUUUUUUAUUUUUCAAUAUAUGAAGUAAAUUUUGUGUAAAAAUUUACAAUUUUCACGUUUUUAUUAGAGUA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((((((((((...)))))))))))))).........(((.......)))((((((((.....))))))))).......................
(((((((((((((...)))))))))))))....((((((........(((((....)))))..(((((((.............)))))))..))))))


#uvsE
#The following shows an alignment in 5'-UTR of uvsE and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
UAAUAAAAAAA-GAGAAUGCCCUUUGCCGGCAUUCUCUUUUUUU-AUUUCUGUAAUUGUCAUACUACAUAAUAACUUGUGUAGAAAUGAGG-UGCCACAUGCUUGUAAGGCU
>NC_004722
---UAAAAAAAAGAGAAUGCCCUUUGCGGGCAUUCUCUUUUUUU-AUUUCUAUAAUUGUCAUACUACAUAAUAGUUAUGAUAGAAAAGGGGCUGUUAUAUGCUUGUAAGGCU
>NC_014171
---UAAAAAAAAGAGAAUGCCCUUUGUGGGCAUUCUCUUUUUUUUAUUUCUAUAAUUGUCAUACUACAUAAUAGUUAUGAUAGAAAAGGGGCUGUUAUAUGCUUGUAAGGCU
>NC_011725
----UAAAAAAAGAGAAUGCCCUUUGCGGGCAUUCUCUUUUUUU-AUUUCUAUAAUUGUCAUACUACAUAAUAGUUAUGAUAGAAAAGGGGCUGUUAUAUGCUUGUAAGGCU
>NC_011772
----UAAAAAAAGAGAAUGCCCUUUGCGGGCAUUCUCUUUUUUU-AUUUCUGUAAUUGUCAUACUACAUAGUAGUUAUGAUAGAAAAGGGGCUGUUAUAUGCUUGUAAGGCU
>NC_010184
-----UAAGAAAGAGAAUGCCCUUUGCCGGCAUUCUCUUUUUUU-AUUUCUGUAAUUGUCAUACUACAUAGUAACUUGUAUAGGAAUGAGG-UGCUGUAUGCUUGUAAGACU

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
---..(((((((((((((((.....)))))))))))))))-.....................(((((((((.............)))))))))..((((...)))).
---..................(((((((((((.(((((((((-(((.....(((((........)))))......)))))))))))))).......)))))))))..
---......((((........)))).....((((..((((((((-(((...(((((((((...........)))))))))))))))))))).))))....((((...)))).
---..(((((((((((((((.....)))))))))))))))-.(((((((.(((((........)))))).......)))))))........((((....)))))....


#maa
#The following shows an alignment in 5'-UTR of maa and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011772
UCUUUUCAAAACUUAUUAGUUGCAUAUGUUAAAAAGUAUGCUAAUAUAGGGUUACUUAUAAAUGUGUUUAAUAAGUAUAAUUUAAGUCACUUAUUAAAGAAGUUUAAUAAGU
>NC_011773
UUCUUUCGAAAUUUAUUAAUUGCACAUUUUAAAAAGUAUGUUAAUAUAGGGAUACUUAUAAACUUAUUUAAUAAGUAUAAUUAAAGUAACUUAUUAAAGGCAUUUAAUAAGU
>NC_012581
```

```
UCUUUUUGAAACUUAUUAGUUGCAUAUAUUAAAAAGUGUGCUACUAUAGGGUUACUUAUAAACUUGUUUAAUAAGUAUAAUUAAAAUCACUUAUUAAAGGUGUUUAAUAAGU
>NC_005957
UCUUUUUGAAACUUAUUAGUUGCAUAUAUUAAAAAGUAUGCUACUAUAGGAUUACUUAUAAACAUCUUUAAUAAGUAUAAUUAAAGUCACUUAUUAAAGAUGUUUAAUAAGU
>NC_012472
UCUUUUUCAAACUUAUUAGUUGCAUAUGUUAAAAAGUAUGCUACUAUAGGAUUACUUAUAAACCUGUUUAAUAAGUAUAAUUAAAGUCACUUAUUAAAGGUGUUUAAUAAGU
>NC_008600
UUCUUUCGAAAUUUAGUAAUUGCACAUUUUAAAAAGUAUGUUAGUAUAGGGAUACUUAUAAACUUGUUUAAUAAGUAUAAUUAAAGUCACUUAUUAAAGAUGUUUAAUAAGU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..........(((((((((..(((((.......)))))).....((((((....)))))).......)))))))).............((((((((((....))))))))))
...........(((((.....(((((.......)))))....)))))...((((((((((...((((((((((.............))))))))))...)))))..))))))
..........(((((((((.........((((.((((...............((((((((....))).)))))))...........)))).)))).....)))))))))
(((((....((((....)))))((((((.......)))))).....(((((..((((((((((....))).)))))))...........)))))..)))))............
.........((((....))))).....((((((((((.............)))))).........((((((((((.............))))))))))....)))))))...


#rpsD
#The following shows an alignment in 5'-UTR of rpsD and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UUCAGCUUCUAUGUUUUCAUUUUGUUCCUUAU-CAA---UAAGGUGUAUCGUGUAACUCCUGCUGCUGGAGCGAGGAUACAUGAAAACAAAAUGUGCAU
>NC_014639
UUCAGCUUCUGUGUUU-CAUUUUGUUCCUUAAGCUU---UAAGGUGUAUCGUGUAACUCCUGCUGCUGGAGCGAGGAUACAUGAAAACAUAAUG-ACAU
>NC_009725
UUCAGCUUCUGUGUUUGCAUUUUGUUCCUUAG-CUG---UAAGGUGUAUCGUGUAACUCCUGCUGCUGGAGCGAGGAUACAUGAAAACAAAAUGUGCAC
>NC_006270
UUCUGCUUCUAUGUUU-CAUUUUGUUCCUUAUUUAU---UAAGGUGUAUCGUGUAACUCUUGCUGCUGGAGCGAGGAUACAUGAAAACAAAAUGGACAU
>NC_009848
UUCGGCUU-UUUUGUAUCAUUUUGUUCCUU--CUAUAUG-AAGGUGCAUCUUGUAACUCCUGCUGCUGGAGCGAGGAUGCAUGAAAACAUAAUG---AC
>NC_015634
GACGGCUU-UGUGUUUGUAUUUUGUUCCUUGCCUGAAUGCAAGGUGUAUCGUGUAACCCCUGCUGCUGGGGCGAUGGUACAUGAAAACAAAAUACGCAU

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.................(((((((((((((.....---)))))....(((((((..(((((((.....))).)))))))))).)))))))))).....
.................(((((((((.((((.....---))))((((((.....((((.......))))....)))))))...)))))))))).....
...........(((((.((((((((.........))---)))))))..(((((((.((((.......)))).....)))))))))))))).........


#rnpA
#The following shows an alignment in 5'-UTR of rnpA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012659
ACCACUGAUCGUUCAGUGGUCUUUUUUUCUAAUAAUAGUGAAUUUCCGCUGAUGAACUAAGGAGUGUCAAUUGAUAUGAAGAAAAAACAUCGUAUAAAAAAGAAUGAUGAAUUCCAG
>NC_008600
ACCACUGAUCGUUCAGUGGUCUUUUUUUCUAAUAAUAGUGAAUUUCCGCUGAUGAACUAAGGAGUGUCAAUUGAUAUGAAGAAAAAACAUCGUAUAAAAAAGAAUGAUGAAUU----
>NC_004722
ACCACUGAUCGUUCAGUGGUCUUUUUUUCUAAUAAUAGUGAAUUUCCGCUGAUGAAAUAAGGAGUGUCAAUUGAUAUGAAGAAAAAACAUCGUAUAAAGAAGAAUGAUGAAUU----
>NC_011725
ACCACUGAUCGUUCAGUGGUCUUUUUUUCUAAUAAUAGUGAAUUUCCGCUGAUGAAAUAAGGAGUGUCAAUUGAUAUGAAGAAAAAACAUCGUAUAAAGAAGAAUGAUGAAUUCCAG
>NC_010184
ACCACUGAUCGUUCAGUGGUCUUUUUUUCUAAUAAUAAUGAGUUUCCGCUGAUGAAAUAAGGAGUGUCAAAUGAUAUGAAGAAAAAAAAUCGUAUAAAAAAGAAUGAUGAAUUCCAG
>NC_009674
```

```
ACCACUGAACGAUCAGUGGUCUUUUUUUCUAGCCGUAAUGAAUUUCCACUGAUGAAAUAAGGAGUGUCAAUUGAUAUGAAGAAAAAGAAUCGUAUUAAAAAAAAUGAUGAAUUUCAG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((((....)))))))..(((((((.....(((((.....)))))).............(((((....)))))..)))))))((((((..........))))))........
.(((((((....)))))))(((((.((((.....(((((.....)))))..)))).)))))).(((((....((((((..........))))))..........)))))........
.(((((((....)))))))((((((((..........(((.....)))))((((.........(((((....)))))..........)))))...)))))))..............
............((((((.........................)))))).............(((((....)))))..........((((((..........))))))........
(((((((....)))))))...................((((((....(((((..........)))))....((((((..........))))))..............)))))))...


#rpsS
#The following shows an alignment in 5'-UTR of rpsS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006582
GGUUUGCCUGCGGUUCUCACGCAGAACCGUGGACGAAUCCCGAAAGGAGGAACAUACAUGGCCGUAGUUUGAAAAAAGGACCUUUCGUUGAUGGUCAU
>NC_013791
GGUUUGGCUGCGGUUCUCGCGUAGAACCGUGGGCGAAUCACGAAGGGAGGUUUUCUCAUGGUCGUAGUUUGAAAAAAGGACCUUUCGUUGAUGAUCAU
>NC_006270
GGUUGUC-UACGGUUCAUAUC--GGACCGUAGUGCAAUCACGAAGGGAGGUUCCAAAAUGCUCGCAGCUUAAAAAAAGGACCAUUUGUCGAUGAUCAU
>NC_009848
GGUUGUC-UACGGUUCAUUUA--GGACCGUAGUUCAAUCACGAAGGGAGGUUCCACAAUGCUCGCAGCUUAAAAAAAGGACCAUUUGUUGAUGAUCAU
>NC_014019
GAUUGAGCUACGGUUCAAAC---GAACCGUAGGACAAUCACGAAGGGAGGUUCAUUUAUGGUCGCAGCUUAAAGAAAGGACCUUUUGUAGAUGACCAU
>NC_002570
GGUUGUGCUGCGGUUCUUAGAAAAGAACCGUGGGCAAUCACGAAGGGAGGUACACACAUGGUCGUAGUUUAAAAAAGGGACCUUUUGUCGAUGACCAC

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((((.((((((((.......)))))))))).)))))).................(((((((.....(((((........)))))....)))))))
((((((.((((((((.......)))))))))).)))))).))))))).............(((((((((((.....)))))))))))))))))))))))))


#ydfQ
#The following shows an alignment in 5'-UTR of ydfQ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
AGUAUCUAAGAACAGUUACUGAAAAGCGGUAACUGUUCUUUUAUUUU------UUAAGCAAACGUUCAGGUGCUCUGAAUAUCAAAAAAGCGGAUAUGAUCAAUAUAAAUGUGUAUAG
>NC_014551
AGUAUCUAAGAACAGUUACCGAAAAGCGGUAACUGUUCUUUCGUUUUGGAAUUUUAAGCUCAUUUGCGGGUGCUCUGCAAAGCAAAAAAACGGAUAUGAUCAAUAUAAAUGUGUAUAG
>NC_000964
AGUAUGUAAGAACAGUUGCUGCUUGUCAGUAACUGUUCUUUUAUUUUCACAUUUUCG-GAAGCUUGCAGGUACUCUGCAAAGCAAAAAAGCGGAUAUCAUAAAUAUAAAUCUGUAUAG
>NC_014479
AGUAUGUAAGAACAGUUACUGGCAGGCGGUAACUGUUCUUUUGUUUUGCCAUUUUCGUGAAAUUUGCAGGUGCCCUGCAAAGCAAAAAAGCGGCUAUCAUAAAUAUAAAUGUGUAUAG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.......((((((((((((((....)))))))))))))).(((((................(((((((...)))))))).........................)))))).......
.((((..((((((((((((((....))))))))))))))).........................)))((((.............)))).........(((((....)))))..


#alaS
#The following shows an alignment in 5'-UTR of alaS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_002570
GU--UUGCUGCGUUAAGGCUU---AAAGUGAUGGAC--CUAUGU------------CCAAAUUAGGGUGGUACCGCGUGACUUCAGCUCUCGUCCCUUC------------
```

```
>NC_014639
GCAAGUCCUGCGUUACAGGAUCA-AAGGUGACGGG-GAAUAUUCAUUUUUU---CUCCGAAUCAGGGUGGUACCGCGAGAC---AGCUCUCGUCCCUGUGUGAACGUGUUG
>NC_007530
GUCUUGC-CACGUUACGGCACCAUGAGGUGAUGAAUUGAUUCGUAUAGCAAUCAAUUCAAAUUAGGGUGGUAUCGCGAGUU---AACUCUCGUCCCUUU------------
>NC_003909
GUUUUGC-CACGUUACGGCACCAUGAGGUGAUGAAUUGAUUCAUAUAGUAAUCAAUUCAAAUUAGGGUGGUAUCGCGAGUU---AACUCUCGUCCCUUU------------
>NC_011725
GUCUUGC-CACGUUACGGCACCAUGAGGUGAUGAAUUGAUUGUUAUUGUAAUCAAUUCAAAUUAGGGUGGUAUCGCGAGUU---AACUCUCGUCCCUUU------------
>NC_010184
GUCUUGC-CACGUUACGGCACCAUGAGGUGAUGAAUUGAUUGUUAUAAUAAUCAAUUCAAAUUAGGGUGGUAUCGCGAGUU---AACUCUCGUCCCUUU------------

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....(((-(((.......((((....)))).((((((((((........)))))))))).......)))))).(((((..--.....)))))......------------
....(((-(.......))))...........((((((((((........)))))))))....((((.......(((((..--.....)))))))))..------------
....(((-(.......))))....(((((((((((((((.......)))))))))).....((((.............---.)))))))..)))).------------


#iolI
#The following shows an alignment in 5'-UTR of iolI and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AUGGAGUUCGGCGGGAUAUGGCGA-CA-GCCUUCCUGCCGAACUCC-CUUCAUAUCUAAACGCAGAUGGGGGAGUCUGGCAUGAAACUUUGUUUUAAUGAAGCGACAACAUUGGAAAA
>NC_014479
AUGGAGUUCGGCGGGAUAUGGCGAACA-GCCUUCCUGCCGAACUCC-CUUCAUAUCUAAACGCAGAUGGGGGAGUCUGACAUGAAACUUUGUUUUAAUGAAGCAACAACAUUGGAAAA
>NC_009725
AUGGAGUUCGGCGGAGCGGGGCAAACAAGCCCUCCUGCCGGACUCC-CUUCAUAUCGAAACGCGGAUGGGAGAGGCUGACAUGAAACUUUGCUUUAAUGAAGCGACUACGCUGGAGAA
>NC_014551
AUGGAGUUCGGCGGGACGGGGCCAAAAAGCCCUUCAGCCGGACUCC-CUUCAUAUCUAAACGCG-AUGGGAGAGGCUGACAUGAAACUUUGCUUUAAUGAAGCGACAACGUUGGAGAA
>NC_006270
------------GCCCCCCCCUGAGUUCGGCGCCCUGCCGAACUUCUCUUCACAA-GGAAUGAGAGAAGGAGAAUCGAAUAUGAAGCUAUGCUUUAAUGAAGCAACGACGUUGGAAAA

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..((((((((((((..((((.....))))))))))))))))-.(((((.............................)))))...(((((((...)))))))............
............((((...((((.....)))))))..((((.((((-(...................)))))................(((((((...)))))))).....))))....
.(((((((.........(((((.....)))))).........((((-(...................)))))............)))))))(((((((.........)))))))..
..((((((((((((..((((.....))))))))))))))))-((((.................)))))..((((((.((((((...))))))).............))))))...


#rimM
#The following shows an alignment in 5'-UTR of rimM and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_004722
AAAAAAGGGCGAGGAGUUAUU-CCUCUCCCUUUUUUAACAUUUAAAUAGAGAGUGCA--UGUUCCAUCUGUGAAAUGGAGAUGCUUAAUUUAUAUAGAAACCAGGGGUGACAUACUAU
>NC_011772
AAAAA-GGGCGAGGAGUUAUU-CCUCUCCCUUUUUUAACAUUUAAAUAGAGAUUGCA--UGUUCCAUCUAUGAAAUGGAGAUGCUUAAUUUAUAUAGAAACCAGGGGUGACAUACUAU
>NC_008600
AAAAA-GGGCGAGGAGUUAUU-CCUCUCCCUUUUUUAACAUUUAAAGAGAAGUUGCA--UGUUCCAUAUGAGAAAUGGGGAUGCUUAAUUUAUAUAGAAACCAG--------------
>NC_011658
AAAAA-GGGCGAGGAGUUAUU-CCUCUCCCUUUUUUAACAUUUAAAGAGAAGUUGCAGCUGUUCCAUAUGUGAAAUGGGGAUGCUUAAUUUAUAUAGAAACUAGGGGUGACAUACUGU
>NC_010184
AAAAA-GGGCGAGGAGUUAUUUCCUCUCCCUUUUUUAACAUUUAAAGAGAAAUUGCA--UGGUCCAUAUAUAAAAUGGAAAUGCUUAAUUUAUAUAGAAACCAGGGGUGACAUACUAU
>NC_009674
```

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AAAAA-GGGCGAGGAGUGAUUUCCUCUCCCUUUUUUAACAUGUAAAGAGAAUUUGUA--UGCUCCGUAUAUAAAAUGGAGAUGCUGAAUUUAUAUAGAAGCCAGAGGUGACAUACUGU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((-(((.(((((((...))-)))).)))))))).......((((........(((--(.(((((((.......)))))))))....))))..........................
.....-.........((((((-((....((((((........))))))).....(((--(.(((((((.......)))))))))..................)))))))).......
.....-(((((.((((.....-...)))))))))).....))))))........--..(((((((.......))))))..)))))...............................
.....-....((((((...))-))))((((((((((.....((((........(((--(.(((((((.......)))))))))....)))))..))))))..)))))...........
(((((-(((.(((((((...))-)))).)))))))).(((((...............)--))))...((((((((.............)))))))).....................


#rpsF
#The following shows an alignment in 5'-UTR of rpsF and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_015634
AAGGAACGUAUGUUUGAUAAAAUGGGAAUGUCAGCGAUAGCCAAAUGCGGGAUGAAGUCUUAAGACAUUUGAUUUUGCCUGCGGGAUAUGGUAUACUUACGACUUGUGAGUA
>NC_004722
UAUGAACUUGG-------CAAAUAUAUUA---UAUGUUUGCCAAGUUUUUUAUGUAUUGUGAGUUGAUUCA--UAUA---ACUUACUAUGAUAUAAUCUAAACUCGUGAGUA
>NC_011725
UAUGAGCUUGG-------CAAAUAUAUUA---UAUGUUUGCCAAGUUUUUUAUGUAUUGUGAGUUGAUUCA--UAUA---ACUUACUAUGAUAUAAUCUAAACUCGUGAGUA
>NC_011772
UAUGAGCUUGG-------CGAAUAUAUUA---UAUGUUUGCCAAGUUUUUUAUGUAUUGUGAGUUGAUUCA--UAUA---ACUUACUAUGAUAUAAUCUAAACUCGUGAGUA
>NC_010184
UAUGAACUUGG-------CAAAUAUAUUA---UGUGUUUGCCAAGUUUUUUACGUAUUGUGAGUUGAUUCA--UAUA---ACUUACUAUGAUAUAAUCUAAACUCGUGAGUA
>NC_009674
GAAAAGCUUGG-------UGAAUAUAUUA---UAUGUUUACCAAGUUUUUUAUUUAUUGUUAGUUGAUUCA--UCUA---ACUUACUAUGAUAUAAUCUAAACUCGUGAGUA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...(((((((((-------(((((((((...---)))))))))))))))).((((((...((((((((.....--..))---)))))))....)))))).................
...(((((((((-------(((((((((...---)))))))))))))))).........((((((((((...(((--((..---------.)))))).........)))))))))...


#ybgF
#The following shows an alignment in 5'-UTR of ybgF and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
CUAAUCGGAAUAGUUUGUAUAUUCUAUUCAAAAAGCCGGUUCGCCGGAAUCUCGUGCCGUCGCCGGCAUGAGAUUUUUUAUUAGGACGG--------CCCUCGCAGAAAGUUGGAAA
>NC_014551
CUAAUCGGAAUAGUUUGUAUAUUCUAUUCAAAAAGCCGGUUCGCCGGAAUCUCGUGCCAUCGCCGGCAUGAGAUUUUUUAUUAGAACGG--------CCCUCGCAGAAAGUUGGAAA
>NC_000964
CUUAUCGGAAUAGUUUGUAUAUUCUAACUUAAA-GCCGGUUCGCCGGAGUCUCGUGUCAUUUCUGACAUGAGAUUUUUUAUUAGGAAGGAAAUAAAUCGCUGAUAGAAAGUUGGAAA
>NC_014479
CUUAUCGGAAUUGUUUGUAUAUUCUAUCUAAAA-GCCGGUUCGCCGGAGUCUCGUGUCAUCGCUGACAUGAGAUUUUUUAUUAGGAAGGAAAUAAAUCGCCGAUAGAAAGUUGGAAA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
......((((((.......)))))).(((((......((....))(((((((((((((....)))))))))))))).................................)))))..
...(((((.((((..........)))).......)))))...(((((((((((((((....)))))))))))))).................................))))...
.............(((((...(((((...........((....))(((((((((((((....)))))))))))))....)))))................)))))..........


#dnaJ
#The following shows an alignment in 5'-UTR of dnaJ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
```

```
AAGUCAAAGUCAGGCAUCU--CUUGGCUUUGACUUUUUUCUUGCCCGGGAUAAAAG----GAAUU--------------------------------GAAAAAUCAU--
>NC_012581
AAGUCAAAGUCAAGCGUGC--CUUGGCUUUGGCUUUUUUCACGAAUGAGAAGGAAUGUGCAGGAUCUUAAGUUUUUUAUUUUGCAUACUGUAA----GUGAGGAAACUUU-
>NC_006274
AAGUCAAAGUCAAGCGUGC--CUUGACUUUGGCUUUUUUCACGAAUGAGAAGGAAUGUGGAGGAUCUUAAGUUUUUUAUUUUGCAUACUGUAA----GUGAGGAAACUUU-
>NC_011658
AAGUCAAAGUCAAGCGUGC--CUUGGCUUUGGCUUUUUUCACGAAUGAGAAGGAAUGUGGAGGGUCUUAAGUUUUUUACUUUGCAUACUGUAA----GUGAGGAAACUUU-
>NC_011725
AAGUCAAAGUCAAGCGUGC--CUUGACUUUGGCUUUUUUCACGAAUGAGAAGCGAUGUGGAGGAUCUUAAGUUUUUCGCUUUGCAUACUGUAA----GUGAGGAAACUUU-
>NC_014103
AAGUCAAAGUCAAGCUUAUUUCUUGGCUUUGACUUUUUUAACGUGGAAAAGCGAAAGAGAAGUUUUUCACUUGGCUCUCUGCGUGCACGGGAGCAAUAGAAAGUAACUUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..(((((((((((.....--)))))))))))(((((((((.............(((((((((.....)))))))))).............----)))))))))....-
.((((((((((((.....--))))))))))))(((((((((...........)))))))))....(((((((((.................----....)))))))))).-


#yjbA
#The following shows an alignment in 5'-UTR of yjbA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
GGAAUAAUUUCUCUAUCCCUUGCCUAUACUGUGGACAACAGUUUUUAU-AAAAGUGAGGGUUAGAGAUGUUAUUUCUUCAUGAUGUGUGGGUCA
>NC_014479
GGAAUAAUUUCUCUGUCCCUUGCCUAUACUGUGGACAACAGUUUUUAU-AAAAGUGAGGGUUAGAGAUGUUAUUUCUUCAUGAUGUGUGGGUCA
>NC_009725
GGAAUAAUUUAUCUAUCCCUUGCCUAUACUGUGGACAACAGUUUUUAU-AAA-GUGAGGGUCGAAUAUGUUAUUUCUUCAUGAUGUAUGGGUCA
>NC_014551
GGAAUAAUUUAUCUUUCCCUUGCCUAUACUGUGGACAACAGUUUUUAU-AAA-GUGAGGGUCGAAUAUGUUAUUUCUUCAUGAUGUGUGGGUCA
>NC_006270
GGAAUAAAUUCCUGCCCCCUUGCCUAUACUGUGGACAACAGUUUUUAUUAAAAGUGAGGGUUAGAAAUGUUGUUUCUUCAUGAUGUGUGGGUGA
>NC_009848
GGAAUAAUUUCUCUAUCCCUUGCCCAUACUGUGGACAACAGUUUUUAU--AAAGUGAGGAUUGGUUAUGUUAUUUCUUCAUGACGUAUGGGUGA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((((((.((((((.(((((((....(((((.....)))))......-....)))))))..)))))).)))))))))((((((...))))))...
.....(((((((((.....)))).......-....(((((((.............)))))))...)))))))..
.....((((((((((((((.((((.((((((.-............)))))))))).....)))))).))))))))..


#hisS
#The following shows an alignment in 5'-UTR of hisS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AGGAUCGAGCGGGAAUAUGA-----ACGUAUUCCAACUAGGGUGGCACCACGGG--UAUACUCUCGUCCCUACUAU-CAUGUAUAGUAGGGGCGGGAGUUUUUUUCAUUUUCAUC
>NC_011773
UAAA--AAA-GUGGAAGCA--UA-CGU--GCUUCAAUUAGGGUGGCACCACGGGUAUAAACUCUCGUCCCUACUGU--UCAAACAGUAGAGGCGGGAGUUUUUU-UAUUU-----
>NC_011725
UAAA--AAA-GUGGAAGCA--UA-CGU--GCUUCAAUUAGGGUGGCACCACGGGUAUAAACUCUCGUCCCUACUGU--UUAAACAGUAGAGGCGGGAGUUUUUU-UAUUU-----
>NC_009674
UAAA--AAAAGUGGAAGCA--UA-CGUU-GCUUCAAUUAGGGUGGCACCACGGGUAUUAACUCUCGUCCCUACUGG--AUAAUCAGUAGAGUCGAGAGUUUUUU-UAUUU-----
>NC_014019
CGAA--AUGAGUGGAAACA--UGUCAUAUGUUUCAAUUAGGGUGGUACCACGUGAGAUUACUCUCGUCCCUACUAUGGAAAAAUAGUAGAGGCGAGAGUUUUUU-UGUAU-----
```

```
>NC_013791
CUGUUUAAAAGUGGAAGCAAGUUCAGUUUGCUUCAAUUAGGGUGGCACCACGGGUAUAUACUCUCGUCCCUGAUG--UAGAUACAUCAGAGGCGGGAGUUUUUUGUGUUU-----

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((--(((....((((((--..-....))))))..........................(((((((((.(((((((-.....)))))))).)))))))))))))-)).....-----
....--.......((((((--..-....))))))....((((.......((((........))))))))))((((-.....))))))))))(....)))))).-.....-----


#ydaO
#The following shows an alignment in 5'-UTR of ydaO and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AGCGUUCGUGAGAGGAGAUGAAUGAAACCUGUGUU-CGAUGUUAUGGCACAGGGGCAUCGUUUGCCUCUGUGU-UUUUUGUUGUUC--AUUUUU-GAA
>NC_014479
AGCGUUCGUGAGAGGAGAUGAAUGAAACCUGUGUU-CGAUGUAAUGGCACAGGGGCAUCGUUUGCCUCUGUGU-UUUUUGCUGUUC--AUUUUUAGAA
>NC_009725
AGCGUUCAUGAGAGGAGAUGAAUGAAACCUGUGCA-CGA--UUAUGGCGCAGGGGCAUCGUUUGCCUCUGUGUCUUUUUGCUGUGCUGAAAUAAGGCA
>NC_014551
AGCGUUCAUGAGAGGAGAUGAAUGAAACCUGUGCA-CGA--UUAUGGCGCAGGGGCAUCGUUUGCCUCUGUGUUUUUUUGCCGUGCUGAAAUAUGGCA
>NC_006322
AGCGUUAA-GAGAGAGGGAGA---UAACCUGGGAA-UAAAAAUCCGAUUCCGCAGGGGCU-UUGCCUCUGCGCUUUUUUGU----------------
>NC_009848
AGCGUUAAAGAGAGCAAAGAC---CAACCUGUGAUCUAAACAAUAGACACAGGGGCAUUUAUUGCCUCUGUGUCUUUUUGG----------------

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..(((((((.......)))))))...........-.........((((((((((((.....))))))))))))............--..........
..........((((((((((.....(((((((.-..........)))))))....)))))).)))))................--..........


#cbiO
#The following shows an alignment in 5'-UTR of cbiO and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011773
AAGGGCAGGACAGUUCUUUUCAAGAAACUGGUCAUGGCCCUUUUUUUU----AAAUAUAAAAU-AGGCUUACUUGGCGAAGGAAAGGGUGCCUUGUAU
>NC_003997
AAGGGCAGGACAGUUCUUUUCAAGAAACUGGUCAUGGCCCUUUUUUUA----AAAUAUAAAAU-AGGCUUACUUGGCGAAGGAAAGGGUGCCUUGUAU
>NC_004722
AAGGGCAGGACAGUUCUUUUCAAGAAACUGGUCAUGGCCCUUUUUUUU----AAAUAUAAAAU-AGGCUAACUUGGCGAAGGAAAGGGUGCCUUCUAU
>NC_011772
AAGGGCAGGACAGUUCUUUUCAAGAAACUGGUCAUGGCCCUUUUUUUU----AAAUAUAAAAU-AGGCGAGCUUGGCGAAGGAAAGGGUGCCUUCUAU
>NC_010184
AAGGGCAGGACAGUUCUUUUCAAGUAACUGGUCAUGGCCCUUUUUUUUU---AAGUAUAAAAU-AGGCUAACUUGACGAAAGAAAGGGUGCCUUGUAU
>NC_009674
AAGGGCAGGACAGUUCUUUUCAAGUAACUGGUCGUGGCCCUUUUUUUUUAAUAAAUAUAGGAUGAGGCUAACUCGAAAAAAGAAAGGGUGCCUUAUAU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.((((((...((((((((...))).)))))).......((((((((((((----...........-.............)))))))))))))))))....
((((((....((((((((...))).)))))).......)))))).....-----..((((((...-.(((.....................)))))))))
.((((((......((((((((((....(((((...........((((----(....)))))).-.)))))).)))))..)))))))....)))))).....
((((((......)))))).(((((..........(((((.....((((----(....)))))).-.)))))).)))))).......((((...)))))....
.((((((...((((((((...))).)))))).))))))((((((((.....((((----(....)))))).-.)))))...))))...........)))))).....
```

```
#pyrR
#The following shows an alignment in 5'-UTR of pyrR and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
GGAUAACGGAUAGGACAGAAGAGAUACGCAUGUGUCUUCGUCCUGGAAAGGAACCCCUCAUGCUCUGGCAGGAGGGGUUUU------U-UCUUCUUAUAUACGAAUGGAGAGGUGU-
>NC_014551
GGAUAACGGAUAGGACAGAAGAGAUACGUGUGUGUCUUCGUCCUGGAAAGGAACCCCUCAUGCUCUGGCAGGAGGGGUUUU------U-UCUUCUUAUAUACGAAUGGAGAGGUGU-
>NC_011725
GGUAACGGUUUGAAAUACUUAGGGUAUGUU-GUACCCUUUUUU--CAAAAGUCCUCUCGACACGCUGAGAGGACUUUUUUU-AUACCAUUACUCUCACGCAAGAAAAAA-GCUUGGA
>NC_011772
GGUAACGGUUUGAAAUACUUAGGGUAUGCU-GUACCCUUUUUU--CAAAAGUCCUCUCGACACGCUGAGAGGACUUUUUUU-AUACCAUUACUCUCACGCAAGAAAAAAAGCUUGGA
>NC_003909
GGUAACGGUUUGAAAUGCAUAGGGUAUGCU-AUACCCUUUUU---CAAAAGUCCUCUCGACACGCUGAGAGGACUUUUUUUUAUACCAUUACUCUCACGCAAGAAAAAA-GCUUGGA
>NC_012659
GGUAACGGUUUGAAAUACAUAGGGUAUGCU-GUACCCUUUUU---CAAAAGUCCUCUCGACACGCUGAGAGGACUUUUUUU-AUACCAUUACUCUCACGCAAGAAAAAA-GCUUGGA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....................(((((((...-)))))))....--.((((((((((((.....))))))))))))...-................(((........)))))..
........(((((((.....(((((((...-)))))))..)))--))))................((((((..........-........))))))..(((........)))))..


#purM
#The following shows an alignment in 5'-UTR of purM and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012659
AAAAAAGCUUCUACUUCUUUU-GAUGUAGAAGCUAGCUUCUUUUUUAUAAAUAGCCCGCCUGGAUGGGGAGAAAUUAAAAGACGAGGUGUAAAUAA
>NC_003909
AAAAAAGCUUCUACUUCUUUUUGAUGUAGAAGCUAGCUUCUUUCUUA-AAACGGCCCGCCAGGAUAGGGAGAAAUUAAAAGACGAGGUGUAGAUAA
>NC_011969
AAAAAAGCUUCUACUUCUUUU-GAUGUAGAAGCUAGCUUCUUUCUUA-AAACGGCCCGCCAGGAUAGGGAGAAAUUAAAAGACGAGGUGUAAAUAA
>NC_006274
AAAAAAGCUUCUACUUCUUUU-GAUGUAGAAGCUAGCUUCUUUCUUA-AAAUAGCCCGCCUGGAUGGGGAGAAAUUAAAAGACGAGGUGUAAAUAA
>NC_011772
AAAAAAGCUUCUACUUCUUUU-GAUGUAGAAGCUAGCUCCUUUCUUA-AAAUAGCCCGCCUGGAUGGGGAGAAAUUAAAAGACGAGGUGUAAAUAA
>NC_011725
AGAAAAGCUUCUAUUUCUUUU-GAUGUAGGAGCUAGAUCCUUUCUUA-AAAUAGCCCGCCUGGAUGGGGAGAAAUUAAAAGACGAGGUGUAAAUAA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
......(((((....((((((-(((..(((((....)))))).....-......((((......)))).....)))))))).)))))........
.....(((((((((.......-...)))))))).((((((((((.-......((((......)))))))))).........)))))........
....(((((....(((((...-.....)))))..)))))........-........(((((.......................)))))).......
.......(((((..((((...-.....)))))((((............-...)))).........)))))........................
...........((((((((((-(((...........(((((.....-................)))))))..)))))))...)))))).......


#lepA
#The following shows an alignment in 5'-UTR of lepA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
----------------------------------------------------------------GUGCGUGAAAGAGAAAAG--CAGCCCAGGUAUGACAGGGAACUUUUCUCUUU
>NC_012581
AAACGGAGGACGGUUGUUUUACAGAUUUGUAAGACGACCGUUUUUUAAUUUGAAAAAGGUUGUCUCUUAUGGUUUGUUCGCAUAAGAUAUAGAUAGAAUGAUUUGUAUUGUAAGCAGC
```

```
>NC_005957
AAACGGAGGACGGUUGUUUUACAGAUUUGUAAGACGGCCGUUUUUAAAUUUGAAAAAGGUUGUCUCUUAUGGUUUGUUCGCAUAAGAUAUAGAUAGAAUGAUUUGUAUUGUAAGCAGC
>NC_011658
AAACGGAGGACGGUUGUUUUACAGGUUUGUAAGACAGCCGUUCUUUAAUUUGAAAAAGGUUGUCUCUUAUGGUUUGUUCGCAUAAGAUAUAAAUAGAAUGAUUUGUAUUGUAAGCAGC
>NC_011725
ACAUGGGAGGCGGUUGUUUUACUGGUUUGUAAGACAGCCGUUUUAAGAUUUGAAAAGGGUUGUCUCUUAUGGUUUAUUCGCAUAAGAUAUAGAUAGAAUGAUUUGUAUCGUAAGCAGC
>NC_011772
GCAUGGGAGAUGGUUGUUUUACUGAUUUGUAAGACAACCGUUUUAAAAUUUGAAAAGGGUUGUCUCUUAUGGUUUAUUCGCAUAAGAUAUAGAUAGAAUGAUUUGUAUCGUAAGCAGC

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....(((((((((((((((((....)))))))))))))))))).........................((((((........(((((((((.....)))))))))))))))...
............((((((............((((((.................)))))))).....................(((((((((.....)))))))))..)))))))
...........((((((((((..........((((((.................))))))((((((.........)))))))).....)))))))))).............
.....(((((((((((((((((....)))))))))))))))))).............(((((...((((((((((((.................))))))).....)))))))))))


#yrvC
#The following shows an alignment in 5'-UTR of yrvC and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
CAGGCUGUCUUCCGGAAGGCAGCCUGUUUUUUUAGGCCGCAUUGAACUUAAAACCUGCAUUGCUAUAAUGACAUACGCUUACAUA----------------AUCAAUCAUCAUUGUAA
>NC_014551
CAGGCUGUCUUGCAGAAGACAGCCUGUUUUUUCAAGCUGCAUUGAACUUAAAACCUGCAUUGCUAUAAUGACAUACGCUUACAUA----------------AUCAAUCAUCACUGUAA
>NC_000964
CAGGCUGUCCUCUGCAGGGCAGCCUGUUUUUUGAAGUUUCAUUGAACUUAAAAUAGACAUUGCUAUAAUGACAUACGCUUACAUUUAAACAUAUAUAUGGUGUUAAAAGUGUUUAUGG
>NC_014479
CAGGCUGUCCUUUGCAGGGCAGCCUGUUUUUUGAAGUUUCGUUGAACUUAAAAUAGACAUUGCUAUAAUGACAUACACUUACAUUUACACAUAUAAAUGGUAUUAAGCGUGUUUGUGA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((((((((....)))))))))).......((((..(((((.....................)))))......))))....................................
.((((((((((....))))))))))(((((((((.....)))))...)))))...(((((...)))))........(((((.............................)))))
.(((((((.......(((((...((((((((((.....)))))...)))))).....)))))).....)))))...))))....................................


#rpoB
#The following shows an alignment in 5'-UTR of rpoB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UCUUGUAAAAGUAUUUUCUUUC-------UUUGGAA-GAAAUGCUUAUUACACAUAUAAACGCAUGAUUUGAGGGGUGAAUCAGUUGACAGGUCAACUAGUUCAGUAUGGACG
>NC_014479
UCUUGUAAAAGCAUUUUCUUUC-------UUUGAAAAGAAAUGCUUAUUACACAUAUAAACGCAUGAUUUGAGGGGUGAAUCAGUUGACAGGUCAACUAGUUCAGUAUGGACG
>NC_016047
UCUUGUAAAAGUAUUUUCUUUC-------UAUGAAAAGAAAUGCUUAUUACACAUAUAAACGCAUGAUUUGAGGGGUGAAUCAGUUGACAGGUCAACUAGUUCAGUAUGGACG
>NC_014639
UCUUGUAAAAGUAUUCUCUUUUACUUGUAUUUAAAAAGAAAUACUUAUUACACAUAUAAACGCAUGAUUUGAGGGGUGAAUCAGUUGACAGGUCAACUAGUUCAGUAUGGACG
>NC_006270
UCUUGUAAAAGUAUUUCUUACAUAU----UUGAGGAAGAAAUGCUUGUUACACAUAUAUACGCAUGAUUUGAGGGGUGAAUCAGUUGACAGGUCAACUAGUUCAGUAUGGACG
>NC_014551
UCUUGUAAAAGUAUUUCUUCAU----------UGUAAGGGAUGCUUAUUACACAUAUAAACGCAUGAUUUGAGGGGUGAAUCAGUUGACAGGUCAACUAGUUCAGUAUGGACG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...((((((((((((((....-------.......)))))))))).))))))((((.................(((((.((((((....)))))).)))))))))....
```

```
...(((((((((((((....-------.......)))))))).)))))............((((((.................)))))))....(((((...))))).
(((((..........((((((-------....)))))))((((.................))))....)))))..(((((.((((((....)))))).)))))).........
...(((((......(((((((-------....)))))))......)))))............((((((.....))))))((((((....)))))).(((((...)))))).
.(((((........(((((((-------....)))))))((((.................)))))))(((((((.....)))))))....)))))).......(((((...)))))).
```

```
#splB
#The following shows an alignment in 5'-UTR of splB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
----------------------------------------------------------------------CAAGGAAAUCAUUACAACUCAUAUCCUUUCCGCCUUA
>NC_006274
------------------UCAGGUAACUUGCUGUGCAAGGUAGCUGUUAUCCAAAUUAUACAUUCAGUAACUUGCAACGCAA--GUUACUGAA--GUGGAAAACUUU
>NC_012472
GAUUUCACCACCUUUUACUCGGGUAACUUGCUGUGCAAGGUAGCUGUUAUCCAAAUUAUACAUUCAGUAACUUGCAACGCAA--GUUACUGAA--GUGGAAAACUUU
>NC_011658
GAUUUCACCACCUUUUACUCAGGUAACUUGCUGUGCAAGGUAGCUGUUAUCCAAAUUGUACAUUCAGUAACUUGCAACGCAA--GUUACUGAG--GUGGAAAACUUU
>NC_011725
GAUUUCACCACCUUUUACUCAGGUAACUUGCGUUGCAAGGUAGCUGUUAUCCGGAUUAUACAUCCAGUAACUUGCAACGCAA--GUUACUGAA--GUGGAAAACUUU
>NC_011772
GAUUUCACCACCUUUUAUUUAGGUAACUUGCGUUGCAAGGUAGCUGUUAUCCAAAUUAUACAUUCAGUAACUUGCAAAGCAA--GUUACUGAA--GUGGAAAACUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
............(((((((..((((((((((..((((((.............................))))))..))))--)))))))..)--))))))......
..((((((.................(((((...)))))).....................((((((((((((...))))--)))))))))--))))))......
```

```
#zosA
#The following shows an alignment in 5'-UTR of zosA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AAGAAAUAACUGACGAUAAAGCUGCCUUUUGGGCAGC-GAUUUUGUUUUUAUAAGAGAAUGAAGAUGAUUUACGUUCUCAAUUAGAGAGGAGAAUUCG
>NC_014479
---------CUGACGAUAAAGCUGCCUUUUGGGCGGC-AAUUUUGUUUUUAUAAGAGAAUGAAGAUGAUUUGCGUUCUCAAUUAGAGAGGAGAUUUUG
>NC_014551
GCGAUAUUACUG-UGAAAAUGCUGCCUGUUAGGCGGCUGUUUUUGCUUUUAUCGGGGAAUGAAGAUGAUUUGCGUUCUCAAUUAGAGAGGAGAAUUCA
>NC_006270
AUAAAAUACUUAAUGUUUAUGCUGCCGAUGAGGCGGCAAUUUGUUUUUUAAGAAGGAAAUGACGAUGAAUUACAUUCUCAAUUAGGGAGGAUA-UUGG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....................(((((((...)))))))........((((((...(((((((...........)))))))...)))))).........
....................(((((((...)))))))...((((((((((....))))))))))..........(((((.....)))))).........
```

```
#gutR
#The following shows an alignment in 5'-UTR of gutR and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
UUUCCAUACGUUCAACAGCCUUUCCUGCUGUAUAAAAGGACAGCCGCACUGUACUUUUUUUUUUUCAUAUACAAAAAACACUGAAUUGAUAAAAUAGUACUAAUAGGAGGUGCAGGCU
>NC_014551
UUUCAAGACGUUCAACAGCCUUUCCUGCUGUAUAAAAGGACAGCCGCACUGUACUUUUUUUUUUUCAUAUACAAAAAACACUGAAUUGAUAAAAUAGUACUAAUAGGAGGUGCAGGCU
>NC_000964
UUUUAACACGUUCAACAGCCUUUCCUGCUGUAUAAAAGGACAGCGGCACUGUACUUUU-UUUUUUCAUAUACAAAAAACGCUGGAUUGAUAAAAUAGUACUAAUAGGAGGUGCAGGCU
```

```
>NC_014479
UUUCAGCACGUUCAACAGACUUUCCUGCUGUAUAAAAGGACAGCGGCACUGUACUUUU-UUUUUUCAUAUACAAAAAACGCUGAAUUGAUAAAAUAGUACUAAUAGGAGGUGCAGGCU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
................(((((.....(((((........)))))).(((((((((((.....((((.............)))).....)))..)))))........)))))))))
................((((((((((..((((.(((((((((.....)))).)))))).(((((.......)))))).................)))))...)))))).....))))))
.........((((((((((.......)))))..(((((.((((.....)))).)))))).(((((.......)))))).....)))))..........(((((.......)))))).....
.......................(((((.(((((..............)))))).....(((((.......)))))).(((.........................)))))))..
.........(((((............(((((........)))))).....((((................)))).........)))))..........(((((.......)))))).....


#cmk
#The following shows an alignment in 5'-UTR of cmk and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_002570
-------AUUGAUUGAAUAAUUAGAUA-GAUUAUCCAUUG------AGAUGUUGUCCUUGACAUUAGAGGUGUAGGA--AUGAAGAA---GAUGAAUAUUGCAAUUGAUG
>NC_008600
GUGAAGCAAAUGAGAAGAAGCAGGA---GAAUACCUGCUUUUCGUUUUGUUUUAUAAGUAAAAAAUGAGGUGUUACGA--UGGAUAAAAGAAUUUCAAUUGCUAUAGAUG
>NC_003909
GUGAAGCAAAUGAGAAGAAGCAGGA---GAAUACCUGCUUUUCGUUUUGUUUUACAAGUAAAAAAUGAGGUGUUACAA--UGGAUAAACGAAUUUCAAUUGCUAUAGAUG
>NC_011658
GUGAAGCAAAUGAGAAGGAGCAGGA---GAAUACCUGCUUUUCGUUUUGUUUUAUAAGUAAAAAAUGAGGUGUUACAA--UGGAUAAACGAAUUUCAAUUGCUAUAGAUG
>NC_010184
GUGAGGCAAAUGAGAAGAAGCAGGGGGAAAAUACCUGCUUUUCGUUUUGUUUUAUAAGUAAAAA-UGAGGUGUUACAA--UGGAUAAACGAAUUUCGAUUGCUAUAGAUG
>NC_009674
UUAAAACUGACAGAGGGAAGCAGGGGG-ACAUACCUGCUUUUCAUUUUGUUUUAUAAGUAAAAA-UGAGGUGUUACAAA-UGGAUAAACGAAUUUCAAUUGCGAUAGAUG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((((((((.....(((((((((...-.....)))))))))...)))))))))).(((((....((((((.......--..........)))))).)))))).......
....(((((.(((((((((((((...-.....)))))))))...(((((((.....((((...........)))).--.)))))))....)))))).)))))).......
..................(((((....-.......(((((...............)))))).....((((((.......--..........)))))).)))))).......
...............(((((((((...-.....)))))))))((((((..(((((....)))))).............(((--(................)))).....)))))
....(((((.(((((.............-.(((((((.........(((((...)))))).........)))))))....--............)))))).)))))).......


#csbA
#The following shows an alignment in 5'-UTR of csbA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006270
GAUGAUGGACAAAAUGAAUGAGUGUCCA------UGUUUGUCCGUUUCUUUGUUCUUUAUAUAAUCGAAUAAGAUCAAGAAACG-UGAGGAGGGUUUUUGU-GUUUACAAAAGCCGUU
>NC_014479
UAUGGUGUAGUAAGAGGGAACGAUUGCA------CGAUUGUCCGAUUCUUCAUUUUUUAUAUAAUCAGAUCAGAUGAAGAAUCCCUGAGGAGGGUUUUUGUUGAUUACAAAAGCCGUU
>NC_009725
ACUGCUGAAAAAGGGUAUUGUGAUAGCAGGGGAACGAUUGUCCGAUUCUUCAUUUUUUAUAUAAUCAGAUGAGAUGAAGAAUUCCCGAGGAGGGUUUUUGU-GAUUACAAAAGCCGUU
>NC_014551
AAUGGUGAAAAAGGGUAUUGUGAUAGCAGGGGAACGAUUGUCCGAUUCUUCAUUUUUUAUAUAAUCAGAUGAGAUGAAGAAUUCCCGAGGAGGGUUUUUGU-GAUUACAAAAGCCGUU
>NC_000964
UAUGGUGUAAGUAGAGGGAGCGAAUGCA------CGAUUGUCCGAUUCUUCAUUUUUUAUAUAAUCAGAUCAGAUGAAGAAUCCCUGAGGAGGGUUUUUGUUGAUUACAAAAGCCGUU

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....(((((((...........))))))------)........((((((((((((.............)))))))))))).........((((((((-....)))))))))...
((((((....................((------(((..((((((((((((((.............)))))))))))))).......))))..))))-).........))))))
```

```
....((((((((((((.........------.........))))))).))))))))....((((.............))))....(((((((((-....)))))))))...
```

#cotO
#The following shows an alignment in 5'-UTR of cotO and the preditced ConSLOpt structures produced by RNAConSLOpt

```
>NC_000964
AUCUAUAUCAAGCAAUCCCGAAUAGGGAUUGCUUUUUUAUUUCUUCUGAUUUUCAGCUUCUGUCAUAUAGAUAGAAUAUGACACAAUCGGAGGGAUGAAGAUGUCUAAUAAGAAAAGA
>NC_016047
AUCUAUGUCAAGCAAUCCCGAACAGGGAUUGCUUUUUUAUUUCUUCUGAUUUUCAGCUUCUGUCAUAUAGAUAGAAUAUGACACAAUCGGAGGGAUGAAGAUGUCUAAUAAGAAAAGA
>NC_014551
----UUGACAAGCAGUCCCUUUCAGGGAUUGCUUUUUUCUUUCUUCUGAUUUUAAUCAUCUGUCAUAUAGAUAAAACAUGACAGAAUCGGAGGGAUGAAGAUGUCAAAACAAAACAGA
>NC_006270
AGCGCUAAAAAAGCAAUCCGCUAAAGGAUUGCUUUUUCUUUUCUUCUGAUUUCUCCUUUUUG-CAUAUAGAUAUACCAUGAACAGAUCGGAGGGAUCAAGAUGUCUAGCAGAAAACAC
```

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):

```
.........((((((((((....)))))))))).....((((((((((((.....(((((...)))))...........)))))))))))).......................
...........((((((((....))))))))((((....(((((...........(((((((((...........)))))))))..........)))))........)))))....
..............(((((...(((((................)))))).........(((((((((...........)))))))))....)))))....................
```

#proB
#The following shows an alignment in 5'-UTR of proB and the preditced ConSLOpt structures produced by RNAConSLOpt

```
>NC_006582
ACCGCGGAGC-----UUUUUCCGUCCUUUUUGAGG----AUGGGAAAAGCUCUUUUUAUUGCUCGAACCUUUUUUCACCCCAUGAACAAUGCAAGCAC-CAGUAGAAAAAAUGGCUAU
>NC_005957
ACCGCGGAACAAUGACCGUUUCGUCCUUUUUAUUUUAUGAAGGGCGAAGCGGUCAUUUUAUUUUG--CUCUUAAAUAGACUAGGUGCAGCACUGAUAAAAAUAGAAAUCGCUGCAAGC
>NC_011658
ACCGCGGAACAAUGACCGUUUCGUCCUUUUUAUUUUAUUAAGGGCGAAGCGGUCAUUUUAUUUUG--CUCUUAAAUAGGCUACGUGCAGCACUUAUAAGAA-------AGCUGUA---
>NC_011725
ACCGCGGAACAAUGACCGUUUCGUCCUUUUUAUUUUAUUAAGGGCGAAGCGGUCAUUUUAUUUUG--CUCUUAAAUACUUCAU-UGCAGCAUUGAUGAGAAUAGAUAUAGUUACAAA-
>NC_011772
ACCGCGGAACAAUGACCGUUUCGUCCUUUUUAUUUUAUUAAGGGCGAAGCGGUCAUUUUAUUUUG--CUCUUAAAUACUUCAA-UGCAGCAUUGAUGAGAAUAGAUAUAGUUGCAAA-
>NC_012472
ACCGCGGAACAAUGACCGUUUCGUCCUUUUUAUUUUAUGAAGGGCGAAGCGGUCAUUUUAUUUUG--CUCUUAAAUAGACUAGGUGC------------------------------
```

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):

```
...((((((.(((((((((((((((((.....)))))))))))))))))...)))))--)................((((((...................))))))..-
...(((((((.......)))))))......(((((....((((((((((.....)))))--)))))))))).......((((((...................))))))..-
```

#yraL
#The following shows an alignment in 5'-UTR of yraL and the preditced ConSLOpt structures produced by RNAConSLOpt

```
>NC_006274
UACAUGGCGAUUAUCAUUCAAUUGCCGGACACUGCAGCGUCUCAUGCAAAGCCAAGUAUGAAAUGGCGAUACUUUGCGUGAGGUAGACAAGUAAUAUA
>NC_011969
UACAUGGCGAUUAUAAUUCAAUUGCCAGACACUGCAGCGUCUCAUGCAAAGCCAAGUAUGAAAUGGCGAUACUUUGCGUGAGGUAGACAAGUAAUAUA
>NC_005957
UACAUGGCGAUUAUCAUUCAAUUGCCAGACACUGCAGCGUCUCAUGCAAAGCCAAGUAUGAAAUGGCGAUACUUUGCGUGAGGUAGACAAGUAAUAUA
>NC_000964
GUAAUGGCAAGCAAGAUGAGAAUGCCAGAUUCCGCAACGUCCCAUGCAAAGCCUACUAUGGGAAGGCGAUACUUUGCAUGGGGUAGAC--UUUCUAAA
```

```
#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....(((((((.......)))))))....(((.....((((((((((((.........)))).....)))))))))))))))))))............
.........(((((......(((((((((.......)))))))(((.......))))))..)))))))..(((((.....)))))...)))))...
..(((((.(((...........((((.((((.......))))...)))).((((.........)))).....)))))))..................
.........(((((.......((((.....((((((((((((((.......))))))...)))).....)))))...)))))....)))))...
....(((((((.......)))))))).....(((.......)))).(((.........)))).((((((....)))))).............


#ylxY
#The following shows an alignment in 5'-UTR of ylxY and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006270
AAGCAACAGGAAGCCUGGGUA----ACCCGGCUUCUUUGUUUUAAGCCGU---GAAAACGUCCGGUUCUAUCUUGUCCUUUUCUCACAUAUUUUGUGGGGAAGGGAGGAAU
>NC_014479
ACAUAAAAAGGAGCCUGGGAG----ACCCGGCUUCUUUAUUUUGAAGCUUUUAAAAAGCGACGGGUUCUACCUUGUCCUUCUCCUUCAUAAUGUGAGGUGAGGGGGG-ACA
>NC_000964
ACAUAAAA-GGAGCCUGGGAG----ACCCGGCUUCUUUAUUUUGAAGCUUUUCAAAAGCGGCGGGUUCUACCUUGUCCUUCUCCUUCAUAAUGUGAGGUGAGGGGGGGACA
>NC_009725
ACCUAACAAGGAGCCUGGGAG----ACCCGGCUUCUUUAUUUUGAGAA----AGACAACGACGGGUUCUACCUUGUCCUCCUCAUACAUAAUGUGUGGUGAGGGGGG--AA
>NC_014551
ACCUAACAAGGAGCCUGGGAG----ACCCGGCUUCUUUAUUUUGAGAA----AGACAACG-CGGGUUCUACCUUGUCCUCCUCAUACAUAAUGUGUGAUGAGGGGGG--AA
>NC_009848
AAUAUAUGAGAAGCCAGGUAUCCGUACCAGGCUUCUUUCUUUUCUUGC-----GCUAACA--UAGUUCUAGCUUGUUUCUCCCCAUCAUAAUUUGUGGUAAAGGGGA-GGG

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.......(((((((((.(((..-----.)))))))))))).............-.......................((((((((((((...)))).)))))))))-...
......(((((....(((((.-----.((((.....................-........)))))))))))))(((((((((((...)))).)))))))))-...
..............(((((..-----.)))))(((((((.............-.......((((((......))))))......((((((...)))))))..)))))))-...


#yxjB
#The following shows an alignment in 5'-UTR of yxjB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
UCAUUCGUUACAGAUAAUGAGAGGUAUAGAUGAAUAGGUUAAACCUUCCAAUUU--------GGCGAGGUUUAUUUGUCUAUGCCUUUUUCAUUUCAUCGGAAUAACGAAUGAAUGAG
>NC_014551
UCAUUCGUUACAGAUAAUGAGAGGUAUAGAUAAAUAGGUUAAACCUUCCAAUUU--------GGUGAGGUUUAUUUGUCUAUGCCUUUUUCAUUUCAUCAGAAUAACGAAUGAAUGAG
>NC_000964
UCAUUCGUUAUAGAUAAUGACAGGUGUAGACAAACUGCCAGACCUGGCCAAUUUUUGAGUAGGCCUAGGUUUAUUUGUCUAUGCCUUUUUCAUUU-AUCUAAA-AAUGAAUGAAUGGG
>NC_014479
UCAUUCGUUAUAGAUAAUGACAGGUAUAGACAAACUGCCAGACCUGGCCAAUUUUUGAGUAGGCCCAGGUUUAUUUGUCUAUGCCUUUUUCAUUU-AUCUAAA-AAUGAAUGAAUGAG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((((((.....(((((.(((((((((((((.............(((((............)))))..)))))))))))))...)))))..........)))))))).....
....((((((....)))))).((((((((((((.............(((((............)))))..)))))))))))))..(((((((............)))))))....


#pyrB
#The following shows an alignment in 5'-UTR of pyrB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
----AACCUUUUAAUGAAAGUCCAGAGAGGCUUGGAAGGGUUAUGAAGAGAAGGAAGCU-CAAU-GCUGCCCUCUAUUUAACCAUACCCCGAGUCUAUCUU-AGACCGGGGUUUUUUU
```

```
>NC_004722
UAAUAACCUUUUAAUUC-AGUCCUGUGAGACCGGAAAGGGUGGCUUC-UUUCUUGCACCUAGUCUCACACGAUUAGGGUAUUUUUAUGCAAAGGUUGUUAUAAAAAUUCAAAAG-UGG
>NC_005957
UAAUAACCUUUUAAUUC-AGUCCUGUGAGACCGGAAAGGGUGGCUUC-UUUCUUGCACCUAGUCUUACACGACUAGGGUAUUUUUAUGCAAAGGUUGUUAUAAAAAUGCAAAAG-UGG
>NC_003909
UAAUAACCUUUUAAUUC-AGUCCUGUGAGACCGAAAAGGGUGGCUUC-UUUCUUGCACCUAGUCUCACACGACUAGGGUAUUUUUAUGCAGAGGUUGUUAUAAAAAUACAAAAG-UGG
>NC_011772
UAAUAACCUUUUAAUUC-AGUCCUGUGAGACAGAAAAGGGUGGCUUC-UUCCUUGCACCUAGUCUUACAUGACUAGGGUAUUUUUAUACAAAUGUUGUUAUAAAAAUACAAAAG-UGG
>NC_010184
AAAUAACCUUUUAAUUC-AGUCCUGUGAGAUAGAAAAGGGUGGCUAC-UUUAACGCACCUAGUCUCA-AAGACUAGGGUAUUUUUAUACAGUUAUUGUUAUAUAAAUUCAAUGG-UGU

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.......(((((.....-((((.(((((((.....(((((.....-.......)))))..)))))))).))))...((((((((((.........)))))))))))))))-...
......((((((.....-..............)))))).......-........(((((((.....)))))))((((((((((.........))))))))))).....-...
((((((((((.....-.....(((((((.....(((((....)))-))))))))))))))(((((.....)))))))...........))))))))))).............-...
((((((((((.....-.((((((((((.....(((((.....-.......)))))..))))))).....)))))).........))))))))))).............-...


#pyrP
#The following shows an alignment in 5'-UTR of pyrP and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AAUCCAGAGAGGUUGCAAAGAGGUGCACAACA--------AAGGCCCAAAAAGUA--UUGGCAGGUCUUUGUAUGCCUCUUUGCGUAAAAA-AGCAAAGAGGUUUUUUUA-
>NC_014479
AAUCCAGAGAGGUUGCAAAGAGGUGCACAACA--------AAGUCCCGAAA-GUG--UUGGCAGGUCUUUGUAUGCCUCUUUGCGUAAAAAUAGCAAAGAGGUUUUUUUA-
>NC_009725
AUUCCAGAGAGUUUGCAAAGAGGAUUUUAAAACACA----AAGCCGGGCGGAUCGA-CGGGCCGGGUUUUGUAUGCCUCUUUGCGCAAA--AAGCAAAGAGGUUUUUUUA-
>NC_014551
AUUCCAGAGAGUUUGCGAAGAGGAUUUUAAAACACA----AAGCCGGGCGGAUCGA-CGGGCCGGGUUUUGUAUGCCUCUUUGCAAUAA--AAGCAAAGAGGUUUUUUUA-
>NC_006270
AUUCCAGUGAGUUUGCAAAGAGGGAUGGAACGAAAG----AAAGCCGCCUUACCG--UGGGC-GGUCUUUGUCUGCCUCUUUGCGCAAUUUAAGCAAAGAGGCUUUUUUAA
>NC_009848
AUUCCAGAGAGUUUGCAAAGAGGGCAAUAACAGAGACACUGAGCACGGUUAACAAGACGGUACGGUUUUUCUAGGCCUCUUUGCGCAUAC-UUGCAAAGAGGCUUUUUUA-

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....((((((.....(((----((((((.........-......)))))))))..((((((((((.........)))))))))))))))).-
.............((((((((..........(((----((((((.........-......)))))))))...)))))))))..........(((((....))))).-


#purD
#The following shows an alignment in 5'-UTR of purD and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011969
AAUUGAUAUGAAAAAACAAACUAGGGGCAUAGCUUCUAGUUUGUACUUAUUUAAAUAUUGGGGAUGAAAUAUGAAUGUUUUAGUAAUUGGCCGCGGUGGGCGUGAGCAUGCUUUAGCU
>NC_012659
GAUUGAUAUGAAAAAACAAACUAGGAGCAUAGCUUCUAGUUUGUACUUAUUUAAAUAUUGGGGAUGAAAUAUGAAUGUUUUAGUAAUUGGCCGCGGUGGGCGUGAGCAUGCUUUAGCU
>NC_003909
CAGUGAUAUGAAAA--CAAACUAGGAGCAUAGCUUCUAGUUUGUACUUAUUUAAGUAUUGGGGAUGAAAUAUGAAUGUUUUAGUAAUUGGACGCGGUGGGCGUGAGCAUGCUUUAGCU
>NC_011772
UAUUGAUAUGAGAAAGCAAACUAGGAGCAUAGCUUCUAGUUUGUACUUAUUUAAUUAUUGGGGAUGAAAUAUGAAUGUUUUAGUAAUUGGCCGUGGUGGGCGUGAGCAUGCUUUAGCU
>NC_014171
UAUUGAUAUGAAAAAGCAAACUAGGAGCAUAGCUUCUAGUUUGUACUUAUUUAAUUAUUGGGGAUGAAAUAUGAAUGUUUUAGUAAUUGGCCGCGGUGGGCGUGAGCAUGCUUUAGCU
```

```
>NC_014335
UAUUGAUAUGAAAAAGCAAACUAGGAGCAUAGCUUCUAGUUUGUACUUAUUUAAAUAUUGGGGAUGAAAUAUGAAUGUUUUAGUAAUUGGUCGCGGUGGGCGUGAGCAUGCUUUAGCU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...............((((((((((((...)))))))))))))...........(((((((.............)))))))............((((((....))))))).....
.......................(((((((.((((((((((.....((((((..((((........)))))))))).......))))))..(((.....)))))))))))))....
...............................((((.((((((.....((((((..((((........)))))))))).......)))))).......((((((....)))))).))))
...................(((((((.((((..(((((((................)))))))).....)))).....)))))))............((((((....))))))).....
.......................(((((((...(((((((................)))))))).(((((((....)))))))).........((((.....)))))...)))))))....


#comFA
#The following shows an alignment in 5'-UTR of comFA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
GGUUAUCGGCUUUUUUGAGUUUUUACGAGAUUAUAAGAAAGGUUUAUAGUAAUGCUGGGGUGGUUGCUGAUGCUCGCUGGAAAGCAGUUACUAUUAGAAGAACUCCCUUCAGAUUUAC
>NC_008600
GGUUAUCGGCUUUUUUGAGUUUUUACGAGAUUAUAAGAAAGGUUUAUAGUAAUGCUGGGGUGGUUACUGAUGGUUGCUGGAAAGCAGUUACUAUUAGAAGAACUCUCUUCAGAUUUAC
>NC_006274
GGUUAUCGGCUUUUUUGAGUUUUUACGAGAUUAUAAGAAAGGUUUAUAGUAAUGCUGGGGUGGUUGCUGAUGGUUGCUGGAAAGCAGUUACUAUUAGAAGAACUCUCUUCAGA-----
>NC_014335
GGUUAUCGGCUUUUUUGAGUUUUUACGAGAUUAUAACAAAGGUUUAUAGUAAUGCUGGGGUGGUUGCUGAUGUUCGCUGGAAAGCAGUUACUAUUAGAAGAACUCCCUUCAGAUUUAC
>NC_011658
GGUUAUCGGCUUUUUUGCGUUUUUACGAGAUUAUAAGAAAGGCUUAUAGUAGUGCUGGAGUGAUUGCUAAUGCUUGGUGGAAAACAGUUGCUAUUAGAAGAACUCUCUUCAGAUUUAC
>NC_003909
GGUUAUCGGCUUUUUUGCGUUUUUACGAGAUUAUAAGAAAGGUUUAUAGUAAUGCUGGAGUGAGUGCUAAUGCUUGCUGGAAAACAGUUGCUAUUAGAAGAACUCUCUUCAGAUUUAC

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((.(((((((((.((((((...)))))))...)))))))))).)))))......(((((.....((((((...((((.....))))...)))))).....)))))............
.....(((((...((((........)))))))))))))))).....))))))))...)))))))))))))))))))))))))))))))))))))....(((((....)))))........
..........(((((((((((((.((((.................(((((((.........)))))))...)))))...)))))).........)))))))).................
.........(((((((((((((...)))))))).))))))))....((((((((((..((((((((....))))))))....)))).)))))))))..(((((....)))))........
................((((((((.....((((((((.....))))))))..((((..((((((((....))))))))....)))).............)))))))).............


#uppS
#The following shows an alignment in 5'-UTR of uppS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
ACUAUGUACAAUAGAUAAUAGUG-AAAAGACCCUCUCAUGUUUACAGGGGGUUUUUU---UGUUAAUACU--GUU-GAUUACAUUGAUUAU-CAGCAGGGAAUGUA
>NC_012581
-------UAGCGAUACCUUCGCAAAUAUGACCCUCU---UCUUAAGGGGGUCUUUUUACCUUUUAGGCAUACGUCUGCUUGCUGGAGGGUAUGAAUGAUGUUUAAA
>NC_003909
-------UAGCGAUACUUUCGCAAAUAUGACCCUCU---UCUUAAGGGGGUCUUUUUACCUUUUAGGCAUACGUCUGCUUGUUGGAGGGUAUGAAUGAUGUUUAAA
>NC_014335
-------UAGCGAUACUUUCGCAAAUAUGACCCUCU---UCUUAAGGGGGUCUUUUUACCUUUUAGGCAUACGUCUGCUUGCUGGAGGGUAUGAAUGAUGUUUAAA
>NC_011725
-------UAGCGAUAACUUCGCAAAUAUGACCCUCU---UCUUAAGGGGGUCUUUUUACCUUUUAGGCAUACGUCUGCUUGCUGGAGGGUAUGAAUGAUGUUUAAA
>NC_011772
-------UAGCGAUUACUUCGCAAAUAUGACCCUCU---UCUUAAGGGGGUCUUUUUACCUUUUAGGCAUACGUCUGCUUGUUGGAGGGUAUGAAUGAUGUUUAAA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
```

```
--------..((((.....))))(((((((((((((---(...)))))))))).....((((((((((.....))))))..))))).........))))))...
--------..((((.....))))((((((.(((((((---....(((((..........)))))((((((.....))))))..)))))))).......))))))...
--------..((((.....))))........((((..---......)))))((((...........)))))..(((((.....................)))))).....
```

```
#ldh
#The following shows an alignment in 5'-UTR of ldh and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
ACUUACUUCCUAUGUUUUAUGCAAGAAAUUGCACGGAUACAUUUUCAAAUACUUGAAUACUUUUAUAAAAUGUAAUAAACUAGAUAUGAAUCUAUAGAAGUAAGACGUAUUA
>NC_008600
ACUUACUUCCUAUGUUUUAUGCAACAAAUUGCACAGAUACAUUUUCAAAUACUUGAAUACUUUUAUAAAAUGUAAUAAACUAGAUAUGAAUCUAUAGAAGUAAGACGUAUUA
>NC_012472
ACUUACUUCCUAUGUUUUAUGCAACAAAUUGCACGGAUACAUUUUCAAAUACUUGAAUACUUUUAUAAAAUGUAAUAAACUAGAUAUGAAUCUAUAGAAGUAAGACGUAUUA
>NC_003909
ACUUACUUCCUAUGUUUCAUGCAAAGAAUUGCACGGAUACAUUUUCAAUUACUUGAAUACUUUUAUAAAAUGUAAUAAACUAGAUAUGACUCUAUAGAAGUAAGACGUAUUA
>NC_005957
ACUGAAUUCCUAUGUUUCAUGCAAAGAAUUGCACGGAUACAUUUUCAAAUACUUGAAUACUUUUAUAAAAUGUAAUAAACUAGAUAUGAAUCUAUAGAAGUAAGACGUAUUA
>NC_010184
ACAGGAUUCCUAUGUUUCAUUCAAGUAAUUGAGUGGAUACAUUUUCAAUCACUUGAAUACUUUUAUAAAAUGUAAUAAAAUAGAUAUGAAACUAUAGAAGUAAGACGUAUUA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((((((.(((((((..(((((....)))))..........(((((....)))))..........)))))))......(((((....)))))..)))))))).......
...................(((((....)))))..(((((...(((((....)))))(((((((((.........................)))))))))....))))).
..........(((((((..(((((....)))))................(((((.......(((((........)))))).(((((....)))))...)))))))))))...
.(((((((((.((((.((((((......((((((..........(((((....)))))..............)))))).......)))))..)))))))))))).......
..........(((((((..........((((((..........(((((....)))))..............)))))....(((((....)))))........)))))))...
```

```
#gatC
#The following shows an alignment in 5'-UTR of gatC and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
-AGUAUAAAAUAUAUAGGGUAUUGUUUCGAAAACACAGGCCUGUCUCAAGGCGUUUUG-UUGCUUUAAAGGGCUUGUUUUUGAUAUGAUCAGUAUUAU-AUGACUU
>NC_005945
AAAGAAAGGCGUUUGCCUUUCUUUUUUUAUGUAAAAAUGCUGUAAGUGCCGUGUGUUGAUUGCUUGAAGUACUGAAAAUUUGGUAUCAUCAAUAGUAUUGUAGAUU
>NC_010184
AAAGAAAGGCACUUGCCUUUCUUUUUUUAUGUAAAAAUACCGUAAGUGCCGUGUGUUGAUUGCUUGAAGUACUGGAAAUUUGGUAUCAUCAAUAGUAUUGUAGAUU
>NC_011772
AAAGAAAGGCAUUUGCCUUUCUUUUUUUAUGUAAAAAUGGCGUAAGUGCCGUGUGUUGAUUGCUUGAAGUACUGAAAAUUUGGUAUCAUCAAUAGUAUUGUAGAUU
>NC_011725
AAAGAAAGGCAUUUGCCUUUCUUUUUUUAUGUAAAAAUGGCGUAAGUACUCUGUGUUGAUUGCUUGAAGUACUGAAAAUUUGGUAUCAUCAAUAGUAUUGUAGAUU
>NC_009674
CGAGAAGGGCAAAAGCCUUUCUUUUUUUAUGUAAAAGUGCUAUAAGUGCCAUGUGUUGAUUGCUUGAAGUACUGAAAAUUUGGUAUCAUCAAUAGUAUUGUAGAUU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((((((((....))))))))))....................(((((....(((((((........(((((((....)))))))).)))))))))))).......
((((((((((....))))))))))..................(((((.............)))))).(((((((.....(((((...)))))))))))))).......
.......(((((((((......((((.....)))))....)))))))))................(((((((.....(((((...)))))))))))))).......
((((((((((....))))))))))....................(((((...................)))))...((((((((((........)))))..))))))
..(((((((((....)))))))))((((.....)))))).....(((((.............)))))..(((((((....)))))))...((((...)))).....
```

```
#luxS
#The following shows an alignment in 5'-UTR of luxS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_008600
GUUUCAUAAUGGUCUCCUUUUCGGCAUAUUCUUAAAGUAUUAUAGCACGACUGUACAUAUACUUUACUAAUGUGCAUUUCCGUUAUAUCAUAUUGGAUAUAACGGAAUUAAAUUAAA
>NC_012659
-------AAUGGUCUCCUUUUCGGCAUAUUCUUAAAGUAUUAUAGCACGACUGUACAUAUACUUUACUAAUGUGCAUUUCCGUUAUAUCAUAUUGGAUAUAACGGAAUUAAAUUAAA
>NC_003909
-------AACGAUCUCCUUUUCAGCAUAUUCUUAAAGUAUUAUAGCACGACUGUACAUAUACUUUACUAAUGUGCAUUUCCGUUAUAUCAUAUUGGAUAUAACGGAAUUAAAUUAAA
>NC_014171
GUUUCAUAACGGUCUCCUUUUCAGCAUAUUCUUAAAGUAUUAUAGCACGACUGUACAUAUACUUUACUAAUGUGCAUUUCCGUUAUAUCAUAUUGGAUAUAACGGAAUUAAAUUAAA
>NC_011772
-------AAUGGUCUCCUUUUCAGCAUACUCUUAAAGUAUUAUAGCACGACUGUACAUAUACUUUACUAAUGUGAAUUUCCGUUAUAUCAUAUUGGAUAUAACGGAAUUAAAUUAAA
>NC_000964
---GUUUCUUCAGCAACCUUUCUG-AUGCAAGUAUAAGAA-AAAAAACACAGAUUGAAA----GUUAAU-CAAUAAUUCUUAUCGGAAAAGUAUGU-UAUAAUGAAAUUACAUUUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
---....................(((((((..(((((((((((((.....)))))...)))))))))..)))))))..((((((((((((.....))))))))))))..........
---.....((((((...........((((.....)))))........)))))).(((((.........)))))...((((((((((((.....))))))))))))..........


#pgk
#The following shows an alignment in 5'-UTR of pgk and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012659
UUCUUAAUUAUAUAAGUUAUCAAUGACAAAACGAGGGAGAGGGUUUGUUCCCUCUCUCUUUCUUUCGUUUUAAAAGCAAAUGUGUUAAGCUUUUGA
>NC_014171
UUCUUAAUUUUAUAAGUUAUCAAUGACAAAACGAGGGAGAGGGUUUGUUCCCUCUCUCUUUCUUUCGUUUUAAAAGCAAAUGUGUUAAGCUUUUGA
>NC_010184
UUCUUAAGUAUAUAAGCAAUCAAUGACAAAACGAGGGAGAGGGUUUGUUCCCUCUCUCUUUCUUUCGUUUUAGAAGCAAAUGUGUUAAGCUUUUGA
>NC_011772
UUCUUAAUUAUAUAAGCAAUCAAUGACAAAACGAGGGAGAGGGUUUGUUCCCUCUCUCUUUCUUUCGUUUUAAAAGCAAAUGUGUUAAGCUUUUGA
>NC_009674
UCCUUAAGUUUAUAAGUUAUCAAUGACAAAACGAGGGAGAGGGUUUGUUCCCUCUCUCU-UCUUUCGUUUUAUAAGCAAAUGUGAUAAGCUUUUGA
>NC_002570
-----------UAGAGUUGCGUUUGACAACGUGAAAGAGGAGGAAGAGAAAACGA-UCUUUCUCCUCUUUCGAUUGUCUACAUAUCGGAUAUUACG

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....................(((((......((((((((((.....)))))))))))....)))))(((((((((...........)))))))))
...................(((((((((((((((((((((.............)))))))))))))))))))).............)))))).....))))
...............................((((((.....((((((.........................)))))))........)))))).
.............(((((.....((((((....((((((((((.....)))))))))))).....(((((.......)))))))))))))))....


#ftsE
#The following shows an alignment in 5'-UTR of ftsE and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
AUAAUGAAGUGUAUUGAA-AAAUGAAACUUUCAGAUUUUUCAUCUUUUUACAAAU----GAGUGGGUCAUAAAUUGUCGAAUGCAUUCGAAG
>NC_005957
AUAG--UAGUAUUGCUUAUAAAAAGAGCAUAAGUAGGCUACCUUCAACAAGAGUGGUUUAACGAGAAUAAAAGUUCAUCUUUUAUUUUCAAA
>NC_007530
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AUAG--UAGUAUUGCUUAUAAAAAGAGCAUAAGUAGGCUACCUUCAACAAGAGUGGUUUAACGAAAAUAAAAGUUCAUCUUUUAUUUUCAAA
>NC_006274
AUAGAGUAGCAUUGCUUAGAAAAAGAGUAUAAGUAGACUACCUUCAACAAGAGUGGUUUAACGAGAAUAAAAGUUCAUCUUUUAUUUUCAAA
>NC_011658
AUAGAGUAGUAUUGCUUAGAAAAAGAGUAUAAGUAGACUACCUUCAACAAGAGUGGUUUAAAGAGAAUAAAGGUUUAGCUUUUAUUUUCAAA
>NC_003909
AUAGAGUAGUAUUGCUUAGAAAAAGAGUAUAAGUAGACUACCUUCAACAAGAGUGGUUUAAAGAUAAUAAAGGUUUAGCUUUUAUUUUCAAA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....(((((.(((((((...........)))))))))))).....................((((((((((.....))))))))))...
............((((.......)))))....((((((((...........))))))))..((((((((((.....))))))))))...


#rbsR
#The following shows an alignment in 5'-UTR of rbsR and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006270
CAUUGUUACUGUAUUCGCCAUUAAACGCCCCUAUAUAUGUCUCGAUAUCCCAGCCCGGUUAAAAUUUCAGUGUUCAUC-CAUUUUUUUAUUGUGAUUUUAAAUGGAUCGUGAUAAUC
>NC_007530
UCGUAAUGAAAAAGCAUCGCCUUAUGGCGAUGCUUUUUU-----------GAGUAUAACUUAAAAGCUUUUUCUUGA-GAAAUGAUUGAC--GUAUUUCUAGAAAUACGUUAUAUUA
>NC_012581
------UGAAAAAGCAUCGCCUUAUGGCGAUGCUUUUUU-----------GAGUAUAACUUAAAAGCUUUUUCUUGA-GAAAUGAUUGAC--GUAUUUCUAGAAAUACGUUAUAUUA
>NC_006274
------UGAAAAAGCAUCGCCUUAUGGCGAUGCUUUUUU-----------GAGUAUAACUUAAAAGCUUUUUUUUGA-GAAAUGAUUGAC--GUAUUUCUAGAAAUACGUUAUAUUA
>NC_011772
------UGAAGAAGCAUCGCCUUAUGGCGGUGCUUUUUU-----------GAGUAUAACUUAAAAGCUUUUUAGUGA-GAAAUGAUUGAC--GUAUUUUUAGAAAUACGUUAUAUUA
>NC_011725
------UGAAGGAGCAUCGUCUUAUGGCGGUGCUUUUUU-----------GAGUAUAACUUAAAAGCUUUUUAGUGA-GAAAUGAUUGAC--GUAUUUUUAGAAAUACGUUAUAUUA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
------((((((((((((((....))))))))))))))-----------)................(((((....)-))))....((((--((((((....))))))))))).....
------.(((((((.....................((((-----------((((...))))))))))))))....-........((((--((((((....))))))))))).....
------((((((((((((((....))))))))))))))-----------)(((((((..........(((((..(-((((((.....--.)))))))))))...)))))))).


#panB
#The following shows an alignment in 5'-UTR of panB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
CUUUAGA---AAGUGAAGAAUCCUUCUCGUUGUAACGGAAGGUUUUUUGGCUUGCAGAAAAAACGGCAGAUCAUCUCCUCUA-AACAUGAGGAGGAGAAAACAUGAAAACAAAACUG
>NC_012581
UAACACACA--ACCCUUCUGCCCUUUUAUGGC---CAGAGGGGUUUUU--UAUAUGAUUCG---GCCAUCUCCUCUCUCCUGUAU-AAAGGAGGAGUAGUUUUUGAAAACAAAAACA
>NC_014335
UAACACACA--ACCCUUCUGCCCUUUUAUGGC---CAGAGGGGUUUUU--UAUAUGAUUCG---GCCAUCUCCUCUCUCCUGCAUUAAAGGAGGAGUAGUUUUUGAAAACAAAAACA
>NC_004722
------------CCCUUCUGCCCUUUUAUGGU---CAGAGGGGUUUUU--UAUAUGAUUCG---GCCAUCUCCUCUCUCCUGCAU-AAAGGAGGAGUAGUUUUUGAAAACAAAAACA
>NC_014171
UAACACACA--ACCCUUCUGCCCUUUUAUGGU---CAGAGGGGUUUUU--UAUAUGAUUCG---GCCAUCUCCUCUCUCCUGCAU-AAAGGAGGAGUAGUUUUUGAAAACAAAAACA
>NC_009674
UUACAAACACUACCCUUCUGCCCUUUUAUGGU---CAGAAGGUUUUUU--UAUAUCAUUCG---GCCAUCGCCUCUCUCCUAAAU-AAAGGAGGAGUAAUAUUUGAAAACGAAAACA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
```

```
........(--(((((((((.............---))))))))).--..............---........((((.((((....-..)))))))).((((((....)))))).
..........-...(((((...((((((((..---.(((((((.....--...........---.......)))))))....)))-)))))))))..((((((....)))))).
..........--.........(((((((.....---.)))))))))((((--((.........---.....(((((((.........-...)))))))).......))))).........
..........--................((((---(...........--..........)---)))))((((((((.........-...)))))))..((((((....)))))).
..........--............(((((....---..((((((.....--...........---.....))))))((((((....-..))))))..........)))))..........


#thrS
#The following shows an alignment in 5'-UTR of thrS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AGGUGCC-GU-GUAUUGGCUUU-GCGGAAAAAAGGGUGGAACCACGAUUCCGUUUAUUCAC-CUCGUCCCUUUCAUAGGGGGCGGGG--UUUUU-AUAUGCA-AAAA
>NC_012581
--GCAAUU--AACAAUAAGGUUAAUUGGAACAAGGGUGGAACCACGA--------AUUCACACUCGUCCCUUUU-UACGGGAUGAGUGUUUUUUAUUUUGAGAAAAA
>NC_004722
--GCAAUU--AACAAUUAUGUUAAUUGGAACAAGGGUGGAACCACGA--------AUUCACACUCGUCCCUUUU-UACGGGAUGAGUGUUUUUUAUUUUGAGAAAAA
>NC_010184
--GCAAUU--AACAAUAAGGUUAAUUGGAACAAGGGUGGAACCACGA--------AUUCACACUCGUCCCUUUU-UAUGGGAUGAGUGUUUUUUAUUUUGAAAAAAA
>NC_011772
--GCAAUU--AACGAUCAUGUUAAUUGGAACAAGGGUGGAACCACGA--------AUUCACACUCGUCCCUUUU-UAUGGGAUGAGUGUUUUUUAUUUUGAGAAAAA
>NC_009674
--GCAAUU--AACAGUUUAGUUAAUUGGAACAAGGGUGGAACCACGA--------AUUCACACUCGUCCCUUUU-AUGGGGAUGAGUGUUUUUUAUUUUGAGAAGAA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
--.(((((--(((.....)))))))).....(((((((((.....----------....((((((((((....-...)))))))))).)))))))))........
--.(((((--(((.....)))))))).....(((((.........----------.....)))))).....((((-(.(((((((((.....)))))))))).)))))).
--.(((((--(((.....)))))))).....(((((.......((((----------.....)))))))))..-.............((((((.....))))))).


#proS
#The following shows an alignment in 5'-UTR of proS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_003909
UUAUCAAAAAGAGAGCAUGCACAAUUUUUGUGCAUGAAUCAGGGUGGUAACGCCGGCAAGCUCGGUCCCUAUUUAGGGGCGCGGGCUUUUUUGUAUUUUCUAGAAGGAGGAAGACUGA
>NC_006274
UUAUCAAAAAGAGAGCAUGCGCAAUUUUUGUGCAUGAAUCAGGGUGGUAACGCCGGCAAGCUCGGUCCCUAUUUAGGGACGCGGGCUUUUUUGUAUUUUCUAGAAGGAGGAAGACUGA
>NC_011969
UUAUCAAAAAGAGAGCAUGCACAAUUUU-GUGCAUGAAUCAGGGUGGUAACGCCGGCAAGCUCGGUCCCUAUUUAGGGACGCGGGCUUUUUUGUAUUUUCUAGAAGGAGGAAGACUGA
>NC_008600
UUAUCAAAAAGAGAGCAUGCGCAAUUUUUGUGCAUGAAUCAGGGUGGUAACGCCGGCAAGCUCGGUCCCUAUUUUGGGACGCGGGCUUUUUUGUAUUUUCUAGAAGGAGGAAGACUAA
>NC_006270
CUGA-------------------------------------------------------------------------------------------------------------

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...............(((((((((...)))))))))......((((....))))...((((((((((((....))))))).)))))))).......((((((....))))))).......
......(((((((..(((((((((...)))))))))....((((.......(((((.....)))))))))..............)))))))...((((((....))))))).......
....(((((((.((((((((((...)))))))))).......((((....))))).....)))).((((.............)))))))))))..((((((....))))))).......
((((((.........(((((((((...)))))))))........)))))))...(((.....)))((((((....))))))).....((((((..........)))))))).........


#ybxF
#The following shows an alignment in 5'-UTR of ybxF and the preditced ConSLOpt structures produced by RNAConSLOpt
```

```
>NC_000964
AUGUCAUACC--UUGUUGACAUUCGUCUCCUAGAAUGAUAAUAUAACCAAGGUGCUCGAAUAAA-CCUGU-UACUUUGGAGGAUAUGUUUAUGUCUUAUGAUAAAGUAUCACAGGCCA
>NC_009725
AUGUCAUACG--UUGUUGACAUCCGUCCCGCAGAGUGAUAAUAUAACCAAGGUGCUCGAAUAAAACCUGU-UACUUUGGAGGAUAUGUUUAUGUCUUAUGAUAAAGUAUCACAGGCCA
>NC_006270
UUGUCAUCAU--AUGUUGACAUCCUUCUUUCAGGAUGAUAAUAUAACCAAGGUGCUCAAUUAAA-CCUGU-UACUUUGGAGGAUAU-AUGAUGUCUUAUGAUAAAGUAUCACAGGCUC
>NC_009848
CUGUCAUAUG--AUAUUGACAUCCUUCUGCCAUGAUGAUAAUAUAACCAAGGUGCUCAAAUAAAACCUGU-UACUUUGGAGGAUAU-UCGAUGUCUUAUGAUAAAGUAUCACAGGCUC
>NC_013791
UAUUAAUAAG--UGGUUGACACACAUAUAUCAGGGUGAUAAGAUA-UCAAAGUGUGC--UCAGAACCUGU-UGCUUUGGAGGAUGA-ACAAUGUCUUAUGAAAAAGUAAAGCAGGCUA
>NC_015634
UUUUUACACGGGCUGUUGACUUUAGAUUUUCAAAGUGAUAUUAUAUUCAAGGUGCUCCUUGAAUACCUGUAUACUUUGGAGGAUAUUGCGAUGUCUUAUGAAAAAGUAAAUCAGGCGA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..........--.......(((((........)))))..............................(((((-(((((((.(((((((....)))))))....)))))))..)))))...
.(((((((..--.......(((((........)))))).........(((((((.................-)))))))).((((((....)))))))))))))...............
.(((((....--....)))))..........................(((((((.................-)))))))).............((((..((((((...)))))).)))))..
.(((((((..--.....((((((......(((((...............((((...........))))..-...)))))..........)))))).)))))))...............
.(((((....--....)))))..............(((((.........((((...........))))..-........(((((((....)))))))).........)))))........


#thrZ
#The following shows an alignment in 5'-UTR of thrZ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UGCUGCGUUACAGCACCGAGCCGACAA-CAUAGUAUUUGUC----GGGAACUUGGGUGGACCACGGGUUAAUCACACACUCGUCCCUAUCUGCGGG-ACGGGUGUGUUUUUUUAUAUA
>NC_014479
UGCUGCGUUACAGCACCGAGCCGAUAAACAAAGCGUUUGUC----GGGAAUUUGGGUGGACCACGGGUACAUCACACACUCGUCCUUUACAGCGGG-ACGGGUGUGUUUUUU-AUAUC
>NC_009848
UGCCACGUUACGGCACCAGAGCCAUAAAGCGAGUAUGCAUUAU--GGGAAUUUGGGUGGACCACGG----AUUACACAUUCGUCCCUUUACACGGG-AUGGGUGUGUUUUUUUAUUUU
>NC_014551
-GCCGCGUUACGGCAA-AAAUGAGCCGUCACUUGAAGUGAC----GGGAAUUUGGGUGGACCGCGGGUCUGACACACACUCGUCCCUUGCUUUGGG-AUGAGUGUGUUUUU--AUUUU
>NC_006270
UGCAACGUUACAGCAUCAGAGCCAUAAGUUGUCCAUUUAACUUAUGGGAAAUUGGGUGGACCACGG----GUAAUGCACUCGUCCCUAGCUUUGGGGAUUAGUGCAUUUUUUUAUUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((.....)))))(((((......((((((...))))))----.....)))))..................((((((((((((.......)))-)))))))))...........
(((((.....)))))................((((((((----((((...((((((.................)))))))))).........)-)))))))............


#ypbR
#The following shows an alignment in 5'-UTR of ypbR and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UAAAUCUGU-----UUGAUGAAUCUGGAACUUGUAAAAGUUGCAGAUUUUCUUU--UAUGAAGCUGCCG-UAAUGGCGGCUUUUUUCUAUUCUCCUAAAGAAAUUUGGUUUAUUCUUG
>NC_014479
UAAAUCUGU-----UUAA-AAAUCUGGAACUUGUCAAAGUUGCAGAUUUUCUUU--UAUGAAGCUGCCG-UAAUGGCGGCUUUUUUCUAUUCUCUUAAAGAAAUUUGGCUCAUUCUUG
>NC_009725
UAAAUCGAUGUCUUCUUAAACAUCUGCGGUUUUUCCU-GCCGCGGGUGUUUUUU-CUUUUCAGCUGCCGAUAUCGGCGGCUUUUUUGC-GUUUCCUGAAGAAAAGUGAGCCAUUCUUG
>NC_014551
UAAAUCGAUGUCCUCUUAAGCAUCUGCGGUUUUUCCU-GCCGCGGGUGUUUUUUUCUUUACAGCUGCCGAUAUCGGCGGCUUUUUUGCCGUUUCCUGAAGAAAAGUGAACCAUUCUUG
>NC_006270
```

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-------------------AUAGAUACA-CGUGCUGAAGCUGCCGA--------------AACCGGCAGCUUUUUCUCGUUUUUCUUUCCGAUUGUGAAGAAAAAUACAGCAAGGUUG
>NC_006322
AGCGAAUCCGCAAAAAUAAAUAGAUACA-CGUGCUGAAGCUGCCGA--------------AACCGGCAGCUUUUUCUCGUUUUUCUUUCCGAUUGUGAAGAAAAAUACAGCAAGGUUG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...................((((((((((........))))))))))....--...((((((((((....))))))))))..............(((((..........))))).
...................((((((((((........))))))))))....--...............((((((.(((((((.............)))))))..)))))))....


#gabR
#The following shows an alignment in 5'-UTR of gabR and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AUUUUCUUAUCAUUCUGACUUCUCUUUGGUAUGAUGAAAAGUACCAAUUAUAACUUUUUAUGGUAUCAGAAGGAGAAACUACAAAAUGGAUAUC-ACGAUUACACUC
>NC_014479
AUUUUCUUACCAUUCUGACUUCUUUUUGGUAUGAUGAAAAGUACCAAUUAUAACUUUUUAUGGUACCAGAAGGAGAAUCUGCAAA-UGGACAUC-ACAUUCACACUC
>NC_009725
GUUUUCUUAUCAUUCUGACUUCUUUUUGGUAUGAUGAAAAGUACCAAAAUCAAUUUAUCAUGGUAUCAGAAAGGGG---CAGGGUCUGGAUGCUGACGAUUUCCAUU
>NC_014551
GUUUUCUUAUCAUUCUGACUUCUUUUUGGUAUGAUGAAAAGUACCAAAAUCAAUUUAUCAUGGUAUCAGAAAGGGGU--CAGGGUCUGUAUGCUGACAAUUUCCAUU
>NC_006270
UAUUUCUUAUAAUUCUGAAUAUUUUUUGGUAUGAUGAAAAGUACCAAUCAUUAAUUUUUAUGGUACCAGAGGGAGGCGCUAUGAUC---------ACAAUACCGAUU
>NC_009848
UCUUUUUUAUUAUUCUGAAUAUUUUUUGGUAUGAUAGAAAGUACCAAUAUCAUUUUUUUAUGGUACCAGAGAGGAAGG--AAUGACGACAUGCUGACAAUUCAACUA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...................(((((((((((((.(((((((((.........)))))))))..)))))))))))))...............................
.(((((((((((.............(((((((........)))))))............)))))))..)))))).................................
((((((((.....((((.....((((((......))))))((((((.............))))))))))))))))).............................


#ydbJ
#The following shows an alignment in 5'-UTR of ydbJ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UAUAAUA--CAAACAGUGCCUAAUGUU-GGGCACUGUUUAUUUUUUGUCGA--AAAAGGGGAAG-GCUUUAUGGCUGAGCCGAUUUUACAUAUUGAAGGCCUCGAUAAAAAAAUUGGG
>NC_014479
UAUAAUA--CUAACAGUGCCUAAUUUUUGGGCACUGUUUAUUUUUUGUCGA--AAAAGGGGAAG-GCUUUAUGGCUGAGCCGAUUUUACAUAUUGAAGGCCUCGAUAAAAAGAUUGGG
>NC_006270
UAUAAU---CAAACAGUGCCU----UUUCGGCACUGUUUAUUUUUUUG-GA--AAGAGGGGGGG-CUAUGACAAAGCAGCCUGUUUUACAUAUAGAAAAUGUUGAUAAAAUCAUAGA-
>NC_009725
UAUAAUG--CAGACAGUGCCU-AUGUACGGGCACUGUUUAUUUUUUGU-GA--AAAAGGGGAAG-GCUGUAUGACUGAGCCGAUUUUACAUAUUGAAGGCCUUGACAAAACAAUAGGC
>NC_014551
UAUAAUG--CAGACAGUGCCUUAUGUACGGGCACUAUUUAUUUUUUGU-GA--AAAAGGGGAAG-GCUGUAUGACUGAGCCGAUUUUACAUAUCGAAGGCCUUGACAAAACAAUAGGC
>NC_014019
UAUAGUAGACAAAUAGUUAAAAAAGAGAAACAAUAGAAGGCGUAUUGCUAAUUAAAGAAGGAUGUACAUGAUGACAGAAACAGUGCUACAAGUAGAUCAUGUCAGUAAAGUAAUUGGG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
........--.((((((((((......)))))))))).((((((((((--..........(-(((.............................)))))))))))))).....
........--.((((((((((......)))))))))).((((((.....--.)))))).....-.............((((((.....((((((.....)))))).....)))))).
```

```
#spoVR
#The following shows an alignment in 5'-UTR of spoVR and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_002570
GUACGAGGGUUCUACUAGUACCUCGUCUAAGGGAAUCGCCGAGUUUUCUUUUGUUCAUCUCAUUAGGGAAGAUGAUUCAUAAAAUGAACAAAGCGGAGCU--AAGGAGGGGACGAGA
>NC_006582
-------CAUUGCCCUUGCGUACAGGCUUGCUGUA-CGCCAAGGGUUUUUUCUUCGUUCUGUUCCCCCGCUGCUGUUCAUAGAAUAGGAAGAC---AACG--AAGGAGGGAGCGCGU
>NC_012581
GAUGAGACAUUCUCGUUUUUUAUGAGGGUGUCUUUUUAUUAUGCAAUCAAUU----CUCUGAAAGCUUGUUCUCAAUCAUACACUUUCUUAAGGGAAAGUGUAAGGAGGGAAAAUAA
>NC_011772
GAUGAGACAUUCUCGUUUUU-GCGGGGGUGUCUUUUUAUUAUGCAAUCAAUC----CUCUGAAAGCUUGUUUUUCAUCAUACACUUUCUUAAGGGAAAGUGUAAGGAGGGAAAAUAA
>NC_003909
GAUGAGACAUUCUCGUUUUU-ACGGGGGUGUCUUUUUAUUAUGCAAUCAAUC----CUCUGAAAGCUUGUUCUCAAUCAUACACUUUCUUAAGGGAAAGUGUAAGGAGGGAAAAUAA
>NC_011969
GAUGAGACAUUCUCGUUUUU-AUGAGGGUGUCUUUUUAUUAUGCAAUCAAUC----CUCUGAAAGCUUGUUCUCAAUCAUACACUUUCUUAAGGGAAAGUGUAAGGAGGGAAAAUAA

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...((((((((((((.....)))))))))))).(((((..........((----(((((((((....)))))).....((((((((((....)))))))))).))))))..)))))
.........(((((........((((((((..((((((.............----...)))))))..)))))))....((((((((((....)))))))))....)))))).....
.........((((((((((...((((((....................)))----))).)))))).............((((((((((....)))))))))....)))))).....
(((((((...)))))))......((((((....................)))----))).......(((((((.....((((((((((....)))))))))....)))..)))))


#yitJ
#The following shows an alignment in 5'-UTR of yitJ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006270
UUCUUAUCAAGAGAGGCAGAGGGACUGGCCCGAUGAAGCCUCAGCAACCGGUG------AAUGAAUAUUC-AUGACCAAGGUGCUAAAUCCAGCAAGCAGC----CUGCUUGGAAGAU
>NC_009848
UUCUUAUCAAGAGAGGCAGAGGGACUGGCCCUGUGAAGCCUCAGCAACCGGUGUAGUAGAAUCUAUUUUCUAUGACCAAGGUGCUAAAUCCAGCAAGCAAC-----UGCUUGGAAGAU
>NC_000964
UUCUUAUCAAGAGAAGCAGAGGGACUGGCCCGACGAAGCUUCAGCAACCGGUGUAAUGGGAUC---AGCC-AUGACCAAGGUGCUAAAUCCAGCAAGCUCG--AACAGCUUGGAAGAU
>NC_009725
UUCUUAUCAAGAGAAGCCGAGGGACUGGCCCGACGACGCUUCAGCAACCGGUGUAGUGGUUACCCAAACC-AUGACCAAGGUGCUAAAUCCAGCAAGCUAA-AAACAGCUUGGAAGAU
>NC_014551
UUCUUAUCAAGAGAAGCCGAGGGACUGGCCCGACGACGCUUCAGCAACCGGUGUAAUGGUUACCCAAACC-AUGACCAAGGUGCUAAAUCCAGCAAGCUAAUAAACAGCUUGGAAGAU
>NC_014019
UUCUUAUCAUGAGAGGUGGAGGGACUGGCCCUUUGAAACCUCAGCAACCAGUC--------------GUU-AGAGACAUGGUGCUAAAUCCAGCAAGCAAU-UUAUUGCUUGGAAGAU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.((((.(((((.(((((....................)))))).............................-..........((((......)))).....-......)))))))).
(((((.....)))))........(((((....................)))))..................-......................((((((..-....))))))......
............(((((....................)))))((((.......................-..........)))).....(((((........-.......)))))....
(((((.....)))))...((((................)))).............................-....(((((.((((......)))).....-......)))))).....
.((((.........(((((((................)))).............................-..........))))........((((((..-....)))))).)))).


#comC
#The following shows an alignment in 5'-UTR of comC and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
AGUAGAAGUUCUCUCCUUUUUUUGCUAUGUUCUUCUGGAAAGGAGAGGAAGGGAUGUUCCUUAUGUAUAUGCAUUGUUAGUUGGGAUGGUG
>NC_006274
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AGUAGAAGUUCUCUCCUUUUUUUGCUAUGUUCUUCUGGAAAGGAGAGGAAGGGAUGUUCCUUAUGUAUAUGCAUUGUUGAUUGGGAUGGUG
>NC_011658
AGUAGAAGUUCUCUCCUUUUUUUGCUAUGUUCUUUUGGAAAGGAGAGGAAGGGAUGUUCCUUAUGUAUAUGCAUUGUUAGCGGGGAUGGUG
>NC_011725
AGUAGAAGUUCUCUCCUUUUUUUGCUAUGUUUUUUUGGAAAGGAGAGGAAGGGAUGUUCCUUAUUUAUAUGCACUGUUAGCAGGGAUGGUG
>NC_014171
AGUAGAAGUUCUCUCCUUUUUUUGCUAUGUUUUUUUGGGAAAGGAGAGGAAGGGAUGUUCCUUAUUUAUAUGCACUGUUAGCAGGGAUGGUG
>NC_011772
AGUAGAAGUUCUCUCCUUUUUUUGCUAUGUUUUUUUGGGAAAGGAGAGGAAGGGAUGUUCCUUAUUUAUAUGCACUGUUAGCAGGAAUGGUG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.........((((((((((((.............)))))))))))(((((....)))))).........(((((((......)))))))
.........(((((((((((((.............)))))))))).))))))((((((.....................)))))))...
((((((((..........))))))))...(((((((..........)))))))..((((((.....................)))))))...
((((((((..........))))))))...(((((((....)))))))..(((((....)))))).........(((((((......)))))))
..((((((.......................)))))).......((((((......)))))).........(((((((......)))))))


#atpG
#The following shows an alignment in 5'-UTR of atpG and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
--------------------------------------------------------------------------------CUCGAAUGCUGAUGAGAGAAAAAGGUUCUCUUUU
>NC_008600
A--GGCGUCUCAAUUUCUGAGAUUGCUGACGGUUAUGUAAAGGAAAAGAGUAGGUGCACUAUUCUUUUCCUUCAAUCAUGAGCAAGAAUAUCUUGCAACGUAGAUUAGGAAGAGGAUU
>NC_014171
AAAGGCAUCUCGGGCUCUGAGAUUGCUAAAGGUCAUGUAAAGGAAAAGAGUAGGUGCACUAUUCUUUUCCUUCAAUCAUGAGCAAGAAUAUCUUGCAACGUAGAUUAGGAAGAGGAUU
>NC_003909
AAAGGCAUCUCGGGCUUUGGGAUUGCCGACGGUUGUG-AAAGGAAAAGAGUAGGUGCACUAUUCUUUUCCUUCAAUCAUGAGCAAGAAUAUCUUGCAACGUAGAUUAGGAAGAGGAUU
>NC_011772
AUAGGCAUCUCAAUCUUUGAGAUUGCUGACGGUUAUGUAAAGGAAAAGAGUAGGUGCACUAUUCUUUUCCUUCAAUCAUGAGCAAGAAUAUCUUGCAACGUAGAUUAGGAAGAGGAUU
>NC_006274
AAAGGCAUCUCAAUUUCUGAGAUUGCUGACGGUUAUGUAAAGGAAAAGAGUAGGUGCACUAUUCUUUUCCUUCAAUCAUGAGCAAGAAUAUCUUGCAACGUAGAUUAGGAAGAGGAUU

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
......(((((((...)))))))........(((((..(((((((((((((.....)))))))))))))....)))))((((((...))))))......................
........((((........(((((.............((((((((((((.....)))))))))))))))))).))))).......((((........))))............
......(((((((...)))))))..........................................((((((((((.........((((((...))))))..........)))))))))).
....((((((((((((...))))))).........................))))))...((((((((((.................((((........)))).)))))))))).


#radA
#The following shows an alignment in 5'-UTR of radA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
-UAUAG-AAGACGAAAAUGAGGCAUACAGCAUGUAAGUGUAUGCCUCACUUU--C---AAUCAAGAA-AUAG--AACAAGGGAGAGGUCUUACACUAUAU-AUGG
>NC_011725
GUAUAGACAAACUAAGA---GGGCUACGAGAUA--GCCCUCUUUCUUGUACGAGAAGGUAAA-UGUUUAUAGAUGAAAGCGAAGUGAA-AUAUAAAAAGAUAUGG
>NC_012472
GUAUAGACAAACUAAGA---GGGCUACGAGAUA--GCCCUCUUUCUUGUACGAGAAGGAAAACUGUUUAUAGAUGAAAGUGAAGUGAA-CUAUAAAACGAUAUGG
>NC_011658
GUAUAGACAAACUAAGA---GGGCUACGAGAUA--GCCCUCUUUCUUGUACGAUAAGGAAAAUUGUUUAUAGAUGAAAGUGAAGUGAG-AUAUAAAACGAUAUGG
```

```
>NC_003909
GUAUAGACAAACUAAGA---GGGCUACGAGAUA--GCCCUCUUUCUUGUACGACAAAGAAAAUUGUUUAUAGAUGAAAGUGAAGUGAG-AUAUAAAACGAUAUGG
>NC_011772
GUAUAGACAAACAAAGA---GGGCUACGCGAUA--GCCCUCUUUCUUGUACGAGAAGGAAAA-CGUUUAUAGACGAAAGUGAAGUGAA-CUAUAAAAAGGUAUGG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((((.....((---((((((.....))--))))))((((((.......)))))).))))))).................-................
((((((.......((((---((((((.....))--)))))))..))))))..............(((((((................-)))))))........


#thiC
#The following shows an alignment in 5'-UTR of thiC and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
CUUU-CUGACUGCAAAACCGGGUUCUUC-UUUGAACCCGGUUUUUUUGUGCUGG--UGCGAGCUUG-GUUCUGUUAUU-CAAAUGAUAAA---GGAGAGA
>NC_012581
---U-AUGAGC-CAGGUCCUUAUUUUUUUAUGGACCUGGCUCUUUUUAUUUUGGCAUACCUGGCCAUAUCUCGUCCUUGUCAC-GUACAGGGGGGCAACA
>NC_011658
---UUAUGAGC-CAGGUCCUUAUUUUUUUAUGGACCUGGCUCUUUUUAUUUUGGCAUACCUGGCCAUAUCUCGUCCUUGUCAC-GUACAGGGGGGCAACA
>NC_011725
---U-AUGAGC-CAGGUCCUUAUUUUUUUAUGGACCUGGCUCUUUUUAUUUUGGCAUGCCUGGCCAUAUCUCGUCCUUGUCAC-GAACAGGGGGGCAAUA
>NC_011772
---U-AUGAGC-CAGGUCCUUAUUUUUUUAUGGACCUGGCUCUUUUUAUUUUGGCAUGCCUGGCCAUAUCUCGUCCUUGUCAC-GAACAGGGGGGCAACA
>NC_006274
---U-AUGAGC-CAGGUCCUUAUUUUUUUAUGGACCUGGCUCUUUUUAUUUUGGCAUACCUGGCCAUAUCUCGUCCUUGUCAC-GUACAGGGGGGCAAUA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
---.-..((((-(((((((...........)))))))))).........((((.......)))).......(((((((...-..)))))))).......
---(-(((.((-(((((.........................................)))))))))).....(((((((...-..)))))))).......


#rplJ
#The following shows an alignment in 5'-UTR of rplJ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
GGGGCC-UAACCGCUUAAUUAUCCUACCGAGGUGUAUAU-UAUCACAGCUAUUACGUUAGUAUGCUUGUAUAUACAGCCUCCAUGUCUCAUGGAGGCUUUUUAUAUGGA-AUCCGU
>NC_004722
GGUGUCAAUA-GACUUAAU-UUCCUACCCAGGUGUUAAUAUACGAAGCGGAAUCUUUUUCUGUGACUAUAU-----GCCUCCAUGUCU-----ACAAGUUGGGCAUGGAGGUUUUU
>NC_008600
GGUGUCAAUA-GACUUAAU-UUCCUACCUAGGUGUUAAUAUACGAAGCGGAAU-UUUUUCUGUGACUAUAU-----GCCUCCAUGUCU-----ACAAGUUGGGCAUGGAGGUUUUU
>NC_011772
GGUGUCAAUA-GACUUAAU-UUCCUACCUAGGUGUUAAUAUACGAAACGGAAUUUUUUUCUGUGACUAUAU-----GCCUCCAUGUCU-----ACAAGUUGGGCAUGGAGGUUUUU
>NC_010184
GGAGUCGAUUCGACUUAAU-UUCCUACCUAGGUGUUAAUAUACGAAGCGGAAUCUUUUUCUGUGACUAUAU-----GCCUCCAUGUCU-----ACAAGUUGGGCAUGGAGGUUUUU
>NC_009674
GGUGCCAAAUUGGCUUAAU-UUCCUACCUAGGUGUUAAUAUACGAAACGGAAU-UUUUUCUGUGACUAUAU-----GCCUCCAUGUCU-----ACAAGUUAG-CAUGGAGGUUUUU

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
............(((((..-.........)))))....(((((....((((((.....)))))).....)))))-----((((((((((((-----(.....)))))))))))))....
................(((-((((..(((((...............((((((.....)))))).....((((-----(....)))))..-----.....)))))...)))))))...
.(((((.....(((((...-.........((((((....(((....((((((.....)))))).....)))))-----))))..........-----..)))))..)))))..........
```

```
#cggR
#The following shows an alignment in 5'-UTR of cggR and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UUGAAUAAACAAUUCCACCCUGUUAAAAUAAUUAAAGAAAGCAGAAA-UGAUUUUUUUUGCUAUGACGGGACGUUUUUUGUCAUAGCGGGA
>NC_014479
UUGAAUAAACAAUUCCACCCUGUUAAAAUAAUUAAAGAAAGCAGAAA-UAAUUUUUUUUGCUAUGAUGGGACGUUUUUUGUCAUAGCGGGA
>NC_009725
UUGAAUUAACAAUGUCAUCCUGUUAAAAUAAUUAAAGAAAGCAGACA-UAAUUUUUUUUGCUAUGAUGGGACGUUUUUUGUCAUAGCGGGA
>NC_006270
UUGAAUAAACAUUUUAACCCUGUUACAAUAAGGAAUGUAAGCAGGAG-UAAUUUUUUUUGCUGAGGUGGGACGUUUUCAGUCACUGCGGGA
>NC_014019
UUGAAUAAAGGAUUCACUCCUGUUAGAAUAGAUUUUGUA-GCAGGGU-GAAUUUUUUUUCGCAAGGUGGGACAUAAUAUGUCUAUACGGGA
>NC_009848
UUGAAAAUGCAAGAUUAUCCUGUUAAAAUAAUUAAAGAAAGCAGGGAUUGAUUUUUUUUGCUGUGGCGGGACGUUUUUUGUCACAGUGGGA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..................((((((...............((((((((-......)))))))).......((((.....))))..)))))).
...................(((((...............)))))...-.......(((((((((((((((....)))))))))))))))
..................(((((((........(((((((.......-...)))))))).....)))))))).....((((((....))))))


#buk
#The following shows an alignment in 5'-UTR of buk and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011725
UUUUACAAAAGGUGUGGUU--ACCUCUUAUGAGGUUUCCACUUCCUUUUGAAUUUAUUAU--GGAGG-----UAGCAACAUUGUCUGUAAAUCGAAUU
>NC_011772
UUUUACAAAAGGUGUGGUU--ACCUCUUAUGAGGUUUCCGCUUCCUUUUGAAUUUAUUAU--GGAGG-----UAGCAACAUUGUCUGUAAAUCGAAUU
>NC_012581
UUUUACAAAAGGUGUGGUU--ACCUCUUAUGAGGUUUCCACCUCCUUUUGAAUUUAUUAU--GGAGG-----UAGCAACAGUGUCUGUAAAUCGAAUU
>NC_003909
UUUUACAAAAGGUGUGGUU--ACCUCUUAUGAGGUUUCCAUCUCCUUUUGAAUUUAUUAU--GGAGG-----UAGCAACAGUGUCUUUAAAUCGAAUU
>NC_014019
CUAGGCAAAAGGAAUAAAUGAAAUCCUUUCGACCUAGCCUUCGUUUAUGAGAAUGAUAAGUAGGAGGACAUGUGUUGGAUAUGCACGAAUAUCGAAUG

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....(((((((.((((..--(((((....)))))..)))))..)))))))..((((((...--..(((-----(((.....)))))))))))).....
.((((((.........(((--((((((...(((((....)))))).................--)))))-----))))).........)))))).......
.((((((........((..--(((((....)))))..))((((((...............--)))))-----).............)))))).......
.((((((..(((((....)--))))........((((((..................)--)))))-----).............)))))).......


#dnaN
#The following shows an alignment in 5'-UTR of dnaN and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006582
------------------AUGUGAACAU-GUGUAUAACAGAAACAAGCCUAUCCACAAAUACCCACAUGUGAAUAGGCUGUCUCUUUACGCAUUUUGCUUACUUAUCCACAAAUACA
>NC_014479
-CAGGCCCGGGGAUUAAUCGGGGAA-AGUGUGAAUAACUUUUCAGAAGUCAUACACAGUUGUCCACAUGUGGAUAGGCUGUGUUUCCUGUCUUUUUCACAACUUAUCCACAAAUCCA
>NC_000964
-CAGGACCGGGGAUCAAUCGGGGAA-AGUGUGAAUAACUUUUCGGAAGUCAUACACAGUUGUCCACAUGUGGAUAGGCUGUGUUUCCUGUCUUUUUCACAACUUAUCCACAAAUCCA
```

```
>NC_014551
UAGAGCCCUCGGAUGAAUCGGGGAA-AGUGUGAAUAACUUUUCUAUAGCCAUGCACAGUUGUCCACAUGUGGAUAGGCUGUGUUUCCUGUCUUUUUCACAACUUAUCCACAAAUCCA
>NC_006270
---------GUGAUGAGC--GGGAA-AGUGUGAAUAACUUGAACAUGGCCUUACACAGUUGUCCACAUGUGGAUAGGCUGUGUUUCCGUUCUUUUUUACA-CUUAUCCACAAAUCCA
>NC_014019
---------GCUUUUUUUACUUGUAUUUUGUGUAUAAGUGAGUUAGGAUUGUACACAGUUGUCCACAUGUGGAUAGGCUGUGUUCUCACGUUUU-U-AGGGGUUAUCCACAUUUCCA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
-.......................-..((((.((((..............((((((((((((....)))))).)))))))).................)))).))))......
-.......................-..((((.((((((................)))))).))))((((((((((.......................)))))))))).....
-.......................-.(((((................)))))..((((((......(((((...........)))))........)))))).............
-...................(((((-(.((((....................)))).(((((((....)))))))......)))))...........................
-.......................-..((((....................))))............(((((....((((.......................)))).)))))


#yrhE
#The following shows an alignment in 5'-UTR of yrhE and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UAUGAGUCUAUCGUUUUAUAAAAAUCAAGGAUUGGUCU-GUUAGUA--AGACUUGCUAGGAACUAUUCCGCCAUGUGUGUUUACACC--UUCUUAGAAUUAAGGGCAGGUGUAUCUAU
>NC_014479
UAUGAGUCUAUCGGUUUAUAAAAAUCAAGGAUUGGUCU-GUUAGUA--AGACUUGCUAGGAACUAUUCCGCCAUGUGUGUUUACACC--UUCUUAGAAUUAAGGACAGGUGUAUCUAU
>NC_009725
UAUGAGUCUAUCGUUUUAUACAAAU--AGGAUUGGUCU-GUUAGUA--AGACUUGCUAGGAACUAUUCCGCCAUGCGUAUUUAUACCG-UUCUCCGUACAGGAGGCCGGUAUCUAUGU
>NC_014551
UACGAGUCUAUCGUUUUAUACAAAU--AGGAUUGGUCU-GUUAGUA--AGACUUGCUAGGAACUAUUCCGCCAUGCGUAUUUAUACCG-UUCUCCGGACAGGAGGCCGGUAUCUAUGU
>NC_006270
UAUGAAUCUAUCGAAUC-UGACAAUAUAGGAUUGGUCU-GUUAGUA--AGCUUUGCUAGAAACUAUUCCGCCAUGUAUGUUUAUACCGAUUUCCCGCGCCGGAAAUCGGUAUAUAUGU
>NC_015634
GGUUUGUUCAUUUUUGCAUCAGAUGCUAGAAUAAAAAAAGAGAAUAGUAGUUUUAUUUUGCAAAGGUUUGGUAUAAGUA---ACAGAG-UUGCCGGUUUUUUGUAUUCUUUUCUGAAG

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....(((((..................)))))....-.((((((--(...)))))))......................((((((-.((((((...)))))).)))))).....
((((((........)))))).............(((((-.......--)))))).....((((...)))).............((((((-.((((((...)))))).)))))).....
((((((........)))))).........((((((((-..(((((--(...)))))))((((...)))).................-.............)))))))........


#rpsL
#The following shows an alignment in 5'-UTR of rpsL and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
UUUGUGAGGAGAGAGCAUUUGCUCUCCCUUGCAAAAACUUUGUUUUCAACUAAUAAUGACCACCUGGAUAUGUGGUCAUACAAACAUGC-----GA
>NC_011969
UUUGUGAGGAGAGAGCAUUUGCUCUCCCUUGCAAAAACUUUGUUUUCAACUAAUAAUGACCACCCGGAUAUGUGGUCAUACAAACAUGC-----GA
>NC_011772
UUUGUGAGGAGAGAGCAUUUGCUCUUCCUUGCAAAAACUUUGUUUUCAACUAAUAAUGACCACCUGGAUAUGUGGUCAUACAAACAUGC-----GA
>NC_009674
UUUGUGAGAGGGGGGCAUUUGCUCCCGCUCGCAAAAACUUUGUUUUCAACUAAUAAUGACCACCUGGAUAUGUGGUCAUACAAACAUGC-----GA
>NC_009725
U--GUUUUUAUAUAAGAUAUCAAUCUUGUGUAAAGACAUUGUUUUUUGCCUAAUGAUGACCACCUGGGUAUGUGGG-UU-AUAAAAC--GUAAUGA
>NC_014551
U--GUUUUUAUAUAAGAUUUCAAUCUUGUGUAAAGACAUUGUUUUUUGCCUAAUGAUGACCACCUGGGUAUGUGGG-UU-AUAAAAC--GUAAUGA
```

```
#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((((((..((((((....)))))).)))))))...(((((...........((((((((.......)))))))))))).....-----..
..........((((((((((.......)))))).....)))))))........((((((((.......))))))))..........-----..


#gtaB
#The following shows an alignment in 5'-UTR of gtaB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_008600
UAAUUUUAAGUAGUAGGAAACAAAAGGGAGCGAAACCUCCCUUUUGUUCUAUGUAAGGAAUAAUCGUUAUUGAUUCUGACAGAAGAGAGG
>NC_011658
UAAUUUUAAGUAGUAAGGAACAAAAGGGAGCGAAAUCUCCCUUUUGUUUUAUGUA-GGAAUGAUUGCUAUUGAUUCCGACAGGAGAGAGG
>NC_014171
UAAUUUUAAGUAGUAAGGAACAAAAGGGAGCGAAAUCUCCCUUUUGUUUUAUGUA-GGAAUGCUUGCUAUUGAUUCCGACAGGAGAGAGG
>NC_011772
UAAUUUUAAGUAGUAAGGAACAAAAGGGAGCGAAAUCUCCCUUUUGUUUUAUGUA-GGAAUGAUUGCUAUUAAUUCCGACAGGAGAGAGG
>NC_011725
UAAUUUUAAGUAGUAAGGAACAAAAGGGAGCGAAAUCUCCCUUUUGUUUUAUGUA-GGAAUAAUUGCUAUUGAUUCCGACAGGAGAGAGG
>NC_003909
UAAUUUUAAGUAGUAAGGAACAAAAGGGAGCGAAACCUCCCUUUUGUUUUAUGUA-GGAAUGAUUGCUAUGAAUUCCGACAGGAGAGAGG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
........((((((((((((((((((((.....)))))))))))))).....-.......)))))))..((((....)))).....
...((((.....)))).................((((.((((((((.......-(((((...........)))))))))))))).))))


#clpE
#The following shows an alignment in 5'-UTR of clpE and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UAGACCUUUUUAUUCAC-UUUCAUUGGUCAAAGAUGAUCAAAUUAU------UAAGGAGUUUUGGCAAAUGCGUUGUCAACAUUGUCAUCAAAACGAGGCGACGAUUCGCCUUAAC
>NC_014479
ACGACCUUUUUAUUCAC-AUUCAUUGGUCAAAGAAGAUCAAACUUU------UAAGGAGUUUUGGCAAAUGCGUUGUCAACAUUGUCAUCAAAACGAGGCGACGAUUCGCCUUAAC
>NC_009725
--GACCUUAUUUUCUAA-UCCAUUUGGUCAAAGAUGAUCAAACAUUU---UUCGAGGAGUUUUGGCAAAUGCGUUGUCAACAUUGUCAGAAAAACGAGGCGACGAUUCGCCUGAAC
>NC_014551
--GACCUUAUUUUCUAA-UCCAUUUGGUCAAAGAUGAUCAAACAUU-----UCAAGGAGUUUUGGCAAAUGCGUUGUCAACAUUGUCAGAAAAACGAGGCGACGAUUCGCCUGAAC
>NC_006270
--GACCAUUUUUUCUAA-GUCAAUUGGUCAAAAAAGGUCAAAUUC---AAUA-AAGGGGUUUUGGCAAAUGCGUUGUCAACAUUGUCAAAAAAAUGAGGCGACGAUUCGCCUAAAC
>NC_009848
--GACCAUUUUCUUUAACAUUCAUUGGUCAAAUAAAGUCAAACUUUAAAAUAUAAGGAGUCAUGGCAAAUGCGUUGUCAACAUUGUCAAGUAAAUGAAGCAACAAUUCGCCUGAAU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
--((((...........-.......)))).................----.........(((((((((.((.........)))))))))).....((((((....))))))....
--((((...........-.......)))).................----.....((((((((((.....)))))))..(((((..........)))))..)))))........
--......((((((...-.....((((((.....))))))...--------...))))))..(((((((.....)))))))................((((((....))))))....
--...............-.......((((.....))))(((((((----.....)))))))..........((((((.....(((..........)))))))))..........
--...............-........((((((.............----.........)))))))).....((((................))))((((((....))))))....


#ydeB
```

```
#The following shows an alignment in 5'-UTR of ydeB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
AU-AUCUCAC-UCCAUAUAUGGUAACCUUAAGUUAAGUUCCCAUAUAUGGAGGUGGAUUUAUGUUUCAAAUUGGCGAUAACAUUGUUUAUCCAAUGCA
>NC_014479
AU-AUUACACCUACGUAUAUGGUAAUCUUAAG--AAGGUACAA-AUAUGGAGGUGGAUGUAUGUUUCAAAUUGGCGAUAACAUUGUUUAUCCAAU---
>NC_009848
AUUAUUUUAUUUCCAAGUGUGGUACCCUUAAAG-UAGAUACAUGAUAUGGAGGCGGAUGUAUGUUUCAAAUUGGUGAUAACAUUGUUUAUCCAAUGCA
>NC_000964
AU-AUUACACCUCCAUAUAUGGUAAUCUUAAGA-AGGAUACCAUAUAUGGAGGUGGAUGUAUGUUUCAAAUUGGCGAUAACAUUGUUUAUCCAAUGCA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((-(((.(((((((((((.....(((((....-)))))).....)))))))))))))).........(((((..((((.....)))))))))...
..-......((((((((((.....(((((....-)))))).....)))))))))(((((.(((((.............)))))....)))))).....
..-..........(((((((....(((((....-..............)))))..)))))))................(((((.....)))))..


#cotG
#The following shows an alignment in 5'-UTR of cotG and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
GGUAAUAAGGAUCUUCGUCCUUAAAAUCACUUUUAAAAGGAGGAUUUCAAAUUGGGCCAUAUUCCCAUUCUGACAUCAAAGAAGCGGUGAAAUCCGCA
>NC_016047
GGUAGUAAGGAUCUUCAUCCUUAACAUCAUUUUCAAAAGGAGGAUUUCAAAUUGGGCCAUAUUCCCAUUCUGACAUCAAAGAAGCGGUGAAAUCCGCA
>NC_000964
GGUAGUAAGGAUCUUCAUCCUUAACAU-AUUUUUAAAAGGAGGAUUUCAAAUUGGGCCAUAUUCCCAUUCUGACAUCGAAGAAGCGGUGAAAUCCGCA
>NC_009725
G-UAGUAAGGAUCG-CAUCCUUAAAACAUAUAUCAUGAGGAGG-UUUCAAAAUGGGCCAUAUUCCCAUUCUGAUAUCGAAGAAGCAGUAAAGUCCGCA

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....(((((((....)))))))..................((((((((...((((.......))))(((.........)))).....)))))))...
........((((.....(((((.............)))))...........((((.......))))......((((........))))..)))))...
........((((.((((((..................((((..................))))..((((........))))..)))))))))...
...........((((.((((((................)))))).......((((.......))))...........)))).((((......)))).


#yunB
#The following shows an alignment in 5'-UTR of yunB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
CUAUUACUAUGUCCCCUCUUACAAGCAUACAUUGUGAUAUGUAAGGGGGGAUUUU-CUUCCAAGAUAUCGCGGCCCUUUUCGC-AAGAGAGGAC
>NC_016047
CUAUUACUAUGUCCCCUCUUACAAGCAUAUAUUGUGAUAUGUAAGGGGGGAUUUU-CUUCCAAGAUAUCGCGGCCCUUUUCGC-AAGAGAGGAC
>NC_014479
CUAUUACUAUGUCCCCUCUUACAAGCAUACAUUGUGAUAUGUAAGGGGGGAUUUU-CUUCCAAGAUACCGCGGCCCUUUUCGC-AAGAGAGGAC
>NC_006270
UGAAUCGUAUAUCCCCUCUUACAAGCAUACACU-UGUGAUGUAAGGGGGGAUUUUGCUUCGAAGACUUCGCGGCCCUCUGUCA-AAAAGAGGAC
>NC_009725
AAAAUACUAUGUCCCCUCUUACAAGCAUACAUUGUGAUAUGUAAGGGGGGAUUUUUCUUCCUAGAUACCGGAGCGCUCUUCGC-AAGAGAGGGC
>NC_014019
AGAAGCGUGAACCUCCUUAUACAUGCAUACA-UAUAGCUUGUAAGGAGGGAUUUUUUUGUUAAACUUCGUCGGAAAUUAACAA-GAAAAGGCC

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
```

```
..........((((((((((((.................)))))))))))).......................((((((..-..))))))..
..............((((((.......(((((......)))))..(((((......)))))......................-..))))))..
.......(((((............)))))..(((((((((.....(((((......)))))...)))))))))..((((((..-..))))))..
..........((((.(((((((((.......)))).......((((((.......................)))))))...-)))))..))))
```

#groES
#The following shows an alignment in 5'-UTR of groES and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
GAAUGAU-----GUAAGC-GUGAAAAAUUUUUUAUCUUAUCACUUGAAAUUGGAAGGGAAUUCUUUAUUAUAAGAAUUGUGUUAGCACUCUUUAGUGCUGAGUGCUAA-AAUUACA-
>NC_014479
GAAUCAU-----GUAAGC-GUGAAAAAUUUUUUAUCUUAUCACUUGAAAUUGGAAGGGAAUUCUUUAUUAUAAGAAUUGUGUUAGCACUCUUUAGUGUCGAGUGCUAA-AAUUACA-
>NC_009725
GAAUCAU-----GUAAGC-GUGAAAAUUUUUUAUUCUUAUGACUUGAAAUUGGAAGUGAAUUCUUUAUUAUAAUAACUGUGUUAGCACUCUUUAGAGCUGAGUGCUAA-AAUUACA-
>NC_014639
GAAUAAU-----GUAAGC-GUGAAAAUUUUUUAUUCUUAUCACUUGAAAUUGGAAGUGAAUUCUUUAUUAUAAGAAUUGUGUUAGCACUCUUUAGAGCUGAGUGCUAA-AAUUACA-
>NC_010184
AAAGUGCAUAAAGUAAUUUGCGAAAAAAUUAUGAUUUUUUUACUUGCAAAAGAAAUUGAAUUAUUUAUUAUUAGAAGUGUGUUAGCACUCGUGUGACUUGAGUGCUAAUAAAUAAAA
>NC_009674
AAAGUUUAUAUCGUGAUUUGAGAAAAAAUUAUGAUUUUUUUACUUGCAAAAGAAAUUGAAUUAUUUAUUAUUAUAAGUGUGUUAGCACUCGGUAGACUUGAGUGCUAAUAAA-AGAA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
```
...((((-----(....)-)))).................((((((........)))))).(((((......)))))).....(((((((((.........)))))))))-........-
.......(-----((((..-((((................)))).........(((.....)))).)))))..........(((((((((.........)))))))))-........-
```

#gabT
#The following shows an alignment in 5'-UTR of gabT and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011773
GUCUAUAAAGACUCUUAAUGAGUCUUUAUAGACUUAUUUUU-AUGGCGAAAUAGAAGGUUGUAGGAUGAAUAUUGGAAAAGAAUGUUGGCAUACAUUUUGCA
>NC_008600
GUCUAUAAAGACUCUUAAUGAGUCUUUAUAGACUUAUUUUUUAUGGCGAAAUAGAAGGUUGUAGGAUGAAUAAUGGAAAAGAAUGUUGGCAUACAUUUUGCA
>NC_003909
GUCUAUAAAGACUCUGAAUGAGUCUUUAUAGACUUAUUUUUUAUGGCGAAAUAGAAGGUUGUAGGAUGAAUACUGAAAAAGAAUAUUGGCAUACAUUUUGCA
>NC_006274
GUCUAUAGAGACUCUUAACGAGUCUCUAUAGACUUAUUUUUUAUGGCGAAAUAGAAGGUUGUAGGAUGAAUACUGAAGAAGAAUGUUGGCAUACAUUUUGCA
>NC_011658
GUCUAUAAAGACUCUUAAUGAGUCUUUAUAGACUUAUUUUUUAUGGCGAAAUAGA-----------UGAAUACUAGAAAAGAAUAUUGGCAUACAUUUUGCA
>NC_011725
GUCUAUAAAGACUCUUAAUGAGUCUUUAUAGACUUAUUUUUUAUGCCUGGAUACAAAGAUAUAGGAUAAAUGCUAGAAAAGAAAGUUGGCAUAUAUUUUGCA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
```
(((((((((((((.....)))))))))))))..(((((((((.....)))))))))).....................(((((((.....)))))))...
((((....)))).....(((((((((....)))))))))).......(((((((.........................................)))))))..
..((((((((.....((((((((....)))))))))))))))).............(((((((((.......................)))))))))
```

#secA
#The following shows an alignment in 5'-UTR of secA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479

```
--------------UGAAGAGCAACCUUCCGUGAUUUUCGCGGAAGG--UUUUUGUUUUUCUUAUUUGCAAAUUCUUUGGAAAUAAGAGAAGGUAUGAUAUGAUAAUGAGAGGUAU
>NC_016047
--------------AGAACAAAAGCCUUCCGUGAUGACCGCGGAAGG--UUUUUGUUUU-CUUAUUUGCAAAUUCUUUGGAAAUAACAAAAGGUAUGAUAUGAUAAUGAGAGGUAU
>NC_000964
--------------UGAAGAGAAGCCUUCCGUGAUGUCCGCGGAAGG--UUUUUGUUUU-CUUAUUUGCAAAUUCUUUGGAAAUAACAAAAGGUAUGAUAUGAUAAUGAGAGGUAU
>NC_009725
--------------ACCCAUCCAGCCUUCCGUGA-ACGCGCGGAAGG--UUUUUCUCUACUUUACCUGCAAAUUCUUUGGAAAUAGCAAAAGGUAUGUUAUGAUAAUGAGAGGUAU
>NC_014551
--------------ACCCAUCCAGCCUUCCGUGA-ACGCGCGGAAGG--UUUUUCUCUACUUUAUCUGCAAAUUCUUUGGAAAUAACAAAAGGUAUGUUAUGAUAAUGAGAGGUAU
>NC_005945
UUGUUGUCAUAGUUAUAAGACAAGUGUUACAAUUAUCAUUAGGUAUAUACAUUUUAGUUUUUUAAUUAGGAGAAAAAUUGGCAUAACAUACAUUUGAUUUUUAUAACGACUGAUUG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
--------------.......((((((((((.....)))))))))--))..((((((..(((((.......(((((..........)))))........)))))..)))))))...
--------------.......((((((((((.....)))))))))--))(((((...........)))))..(((((....((((((.......))))))........)))))...


#murC
#The following shows an alignment in 5'-UTR of murC and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AAUGAGCGUCAUAUACUGGGGAACAGAUAGACGUUUGUUGGAGGUACA--AUUAUGACUUUUAUCAUUUUGUUGGAAUAAAAGGGACCGGUAUGAGUCCG
>NC_014639
AAUGAACGUCAUAUACUGGGGAACAGAUAGACGUUUGUUGGAGGUACA--AUUAUGACUUUUAUCAUUUUGUUGGAAUAAAAGGGACAGGUAUGAGUCCG
>NC_009725
AAUGAGCGUCAUAUACUGGGGAACAGAUAGACGUUUGUUGGAGGUACG--AUUAUGACUUUUAUCAUUUUGUUGGAAUAAAAGGGACAGGUAUGAGCCCG
>NC_006270
AAUAAGCGUCAUAUACUGGGAAGCAGAUAGACGUUUGUUGGAGGUACU--AUUAUGACUUUUAUCAUUUUGUCGGAAUAAAAGGGACAGGUAUGAGUCCG
>NC_009848
AAUGAGCGUCAUAUACUGUAAGUCAGAUAGACGUUUGUUGGAGGUACA--AUUAUGACUUUUAUCAUUUUGUUGGAAUAAAAGGGACAGGUAUGAGUCCA
>NC_014019
GAUAACCGUCAUAUACUGUCUUACAGAUAGACGAAUGUUGGAGGUUCUUUAU-AUGACAUUUACCAUUUUGUAGGUAUUAAAGGAACAGGAAUGAGUGCG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((.((((((........(((((((....)))))))).........--..)))))).)))))..((((((....)))))).((((........)))).
((((((((((..................)))))))))).........--.....(((((.((((....((((...........)))))))).)))))..
.(((((((((..................)))))))))((((.((((.--........((((((...........)))))).....)))).)))...))))
.((((...)))).........((((((....))))))((((.....--.............((((((((...........)))))).)))).))))
.((((...)))).............((((((................--...((((.....)))))))))).........((((........)))).


#cspB
#The following shows an alignment in 5'-UTR of cspB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UCUGAAGAUUACUGGUAGAGUAAAGGUAAUUAUUUUUGUUCGAACUAUCUUUAAGAAGAAGUUUUGUAAGAGUUUUCGUCUUGAAAGUUUGU-UAAGAGCAAGAAUAGUGAAUUUAAG
>NC_014479
UUUGAGGAUUACUGGUAGAGUAAAGGUAAUUAUUUUUGUUCGAACUAUCUUUAAGAAGAAGUUUUGUAAGAGUUUUCGUCUUGAAAGUUUGU-UAAGAGCAAGAAUAGUGAAUUUAAG
>NC_006270
UCGUUUAAACACUGGUAAAGUAAAGGUAAUUAUUUUUGUUCGAACUAUCUUUAAGAAGAAGUUUUGUAAGAGUUUUCGUCUUGGAAGUUUGUUUUAGAGCAAGAAUAGUGAAUUUAAG
>NC_009848
UCCCGCAAACACUGGUAAAGUAAAGGUAAUUAUUUUUGUUCGUAUCAUCUUUAAGAAGAAGUUUUGAAAGAGUUUUCGUCUUUGAAGUUUGUGUAAGAGCAAGAAUAGUGAAUUUAAG
```

```
>NC_009725
UCUUCGAAUUACUGGUAGAGUAAAGGUAAUUAUUUUUGUUCGAACUAUCUUUAAGAAGAAGUUUUGUAAGAGUUUUCGUCUUGGAAGUUUGUUUUAGAGCAAGAAUAGUGAAUUUAAG
>NC_014551
UCUCCGGAUUACUGGUAGAGUAAAGGUAAUUAUUUUUGUUCGAACUAUCUUUAAGAAGAAGUUUUGUAAGAGUUUUCGUCUUGGAAGUUUGUUUUAGAGCAAGAAUAGUGAAUUUAAG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....................((((....((((((((((((((((...(((((((.((((............)))).)))))))))))).....)))))))))))))...)))))..
........((((((.................(((((((..((((...(((((((((.....)))))).))))...)))))...)))))))..................)))))).......
........((((((......(((((((.................)))))))).......(((((....(((((((((...)))))))))).....)))))).....)))))).......
........((((((........((((....((((((((..(((((.((((....)))))))))).)))))))).....)))))).....(((((......)))))..)))))).......
............((((.((((((((((....))))))))))..)))))..(((((((.((((............)))).)))))))..(((((......)))))..............


#pps
#The following shows an alignment in 5'-UTR of pps and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AGCUAUGGAAAUUAAGAAAAGAACCUGGUGAAAUUUCCCAGGUUCUUUUUAUAUUGCACAAAACAGACACGGUGAUAUAAUCACACUACGUGCGCUUUCUAGUUAAAAAGUUAUAGAU
>NC_014551
AGC--GGGAAACUAAGAAA-GAACCUGGCCAAUUAGGCCAGGUUCUUUUUAUAUUGCGCAAAACAGACACGGUGAUAUAAUCAGUCUACGUGCGCUUUCUUGAUAAAUAGUUAUAUAU
>NC_009725
--------------AGAAA-GAACCUCGCCAAAUUGGCCAGGUUCUUUUUAUAUUGCACAAAACAGACACGGUGAUAUAAUCAGAACACGCGCGCUUUUUGUGUGAAAAGUCAUAGUU
>NC_006270
CGCACGAGGAAAAGAAAAAAGAACCUGGUAAUAACAUCCAGGUUCUUUUGGUAUUGCACAAAACAGACGCGAUGAUAUAAUCAAAUCACGCAUGUUUUC--AAUUAAACGACAUAAAU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..............(((((.(((((((.........)))))))...(((((((((.............)))))))))..............)))))..................
..............(((((.(((((((.........)))))))))))))................(((.((((...)))).....)))).(((((........)))))........


#dnaD
#The following shows an alignment in 5'-UTR of dnaD and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
GUUAUUAAUGCAAUGCAAAAAA-CCUUCCUACAUAAUAGGGAGGUUUUUUUGACGAAUUUGGCAAAAAGAAAUGACGAAAGGUGUGUUAUACUAGAGAGCGA
>NC_006274
UUUAUUAAUGCAAUGCAAAAA--CCUUCCUACAUAAUAGGGAGGUUUUUUUGACGAAUUUGGCAAAAAGAAAUGACGAAAGGUGUGUUAUACUAGAGAGCGA
>NC_012472
UUUAUUAAUACAAUGCAAAAAA-CCUUCCUACAUAAUAGGGAGGUUUUUUUGACGAAUUUGGCAAAAAGAAAUGACGAAAGGUGUGUUAUACUAGAGAGCGA
>NC_011725
UUCAUUCAUGUAAUAUAAAAAA-CCUCCCCAU-UAAUAGGGAGGUUUUUUUGACGAAUUUGGCAAAAAGAAAUAGCUAAAGGUGUGUUAUACUAGAGAGCGA
>NC_003909
UUUAUUAACGUAAUACAAAAAAACCUUCCUACAUAAUAGGGAGGUUUUUUUGACGAAUUUGGCAAAAAGAAAUAGCGAAAGGUGUGUUAUACUAGAGAGCGA
>NC_011658
UUUAUUAAUGUAAUACAAAAA--CCUUCCUACAUAAUAGGGAGGUUUUUUUGACGAAUUUGGCAAAAAGAAAUGGCGAAAGGUGUGUUAUACUAGAGAGCGA

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
................((((((-(((((((.....)))))))))))))).......(((((.........((((((.......)))))).)))))......
...........((((((.....-.((((((........))))))((((((((..........)))))))).............)))))..............
.......................-..(((((........)))))((((((((((((.((((.........)))).............)))))....)))))))..
.(((((.........(((((((-.((((((........)))))).))).........))))).........)))))).....(((((...)))))..........
```

```
#arfM
#The following shows an alignment in 5'-UTR of arfM and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UUCACCCUCCUGAUA-AGUGACAUUCAUCAUACAGGC-UGUGAAAUACAUCACUGCUGUCAGGCUCAGUCGAGCUACACUAAAGCUAUCCUUAGCACAGGAGGUUUUCCUAUGAAUCA
>NC_014479
GUCAUCCUCCCGAUA-AGUGACAUUCAUCAUACAGGC-UGUGAAAUACAUCACUGCUGUCAGGCUCAAUCGAGCUACACUAAAGCUAUCCUUAGCACAGGAGGCUUUCCUAUGAAUCA
>NC_009725
UACACUCUCCUGAUA-AGUGACUUUUAUCAUACAAGC-UGUGAAAUACAUCACUGCCGUCAGGCUCAAUCGGGCUACACUAAAGCUAUCCUUAGCACAGGAGGCUUUCCUAUGAAUCA
>NC_006270
UUCGUUCUUUUUACACAGUGACAUUUUGCAUACAGUCGUGUGAAUUAAAUCACUGCGCCUGCAGCCCGGCGCUUUAUACUAAAAGCCAAUAUAGAGAAGGAGGAUAUACCAUGGACCG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....(((((((...-(((((......(((((.....-)))))......)))))).......(((((....)))))...((((........)))))..)))))))...............
.((((..........-.))))......(((((.((((-(((((......)))))........(((((....)))))...((((........))))).......)))))...)))))....
........((((((.-(((((......(((((.....-)))))......)))))...)))))).........((((.......))))...........(((((...)))))........
.....(((((((...-..................(((-(((((......)))))........(((((....)))))).......))))..........)))))))...............
..........((((.-(((((.((((((.........-.)))))).....)))))...))))((((((....)))))).....((((((...............))))))..........


#csbX
#The following shows an alignment in 5'-UTR of csbX and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006274
UCGUUAUGUAAGCGUAUACUUUUUUUAUCAAAAAGAAUUAAGCGCUUAACCAAAAAAUACUUA--UCGGUGGUGG-GAGAAUGAACGCUAUUAGUUCAAACAAAACAUUUAUGGACAG
>NC_014335
UCAUUAUGUAAGCGUAUACUUUUUU-AUCAAAAAGAAUUAAGCGCUUAACCAAAAAAUACUUA--UCGGUGGUGG-GAGAAUGAACGCUAUUAGUUCAAACAAAACAUUUAUGGACAG
>NC_005957
UCAUAAUGUAAGCGUAUACUUUUUUUAUCAAAAAGAAUUAAGCGCUUAACCAAAAAAUACUUA--UCGGUGGUGG-GAGAAUGAACGCUAUUAGUUCAAACAAAACAUUUAUGGACAG
>NC_012472
UUAUAAUGUAAGCGUAUACUUUUUUUAUCAAAAAGAAUUAAGCGCUUAACCAAAA--UACUUA--UCGGUGGUGG-GAGAAUGAACGCUAUUAGUUCAAACAAAACAUUUAUGGACAG
>NC_012581
UCAUAAUGUAAGCGCAUACUUUUUU-AUCAAAAAGAAUUAAGCGCUUAACCAAAAAAUACUUA--UCGGUGGUGG-GAGAAUGAACGCUAUUAGUUCAAACAAAACAUUUAUGGACAG
>NC_000964
-----------UCUAACAGGAUUACAAUUCAGCAAGCUUGGGUAUAUACUCCAUUGAUAUUUAAGUAGGCGGUGGAGAAAAUGAAUACAGUACAUGCUAAAGGAAAUGUUUUGAACAA

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
........(((((((....((((((.....)))))).....)))))))...............--..(((((((.-.........)))))))..(((((.............)))))..
........(((((((....((((((.....)))))).....)))))))...........((((--((...)))))-)....(((((.......)))))....................
..........(((((...((((((.....)))))).............((((...........--....))))..-........)))))....(((((.............)))))..
.....................................(((((((((...............((((--((...)))))-)........)))..)))))))....................


#ycsF
#The following shows an alignment in 5'-UTR of ycsF and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
UUAUAAUGAAAUAAAGUUCAAAAAUUCGGAAUAGUCGUUCCGAAUUUCGGGACAAUAAAGACAUAAAGCAUAUC--------GUUUGCUUUGG----CAGGAGGGAUUCUGUGUUUCA
>NC_014479
UUAUAAUGAAGCAAAGUUCAAAAAUUCGGAAUAGUCAUUCCGAAUUUCGGAACAAUAAA-ACAUAAAGCAUAUC--------GUUUGCUUUGG----CAGGAGGGAUUCUGUGUUUCA
>NC_009725
AUAUAAUGAAGAGAAAUCCAACAAUUCGGAAUAGUCAUUCCGAAUAGCGGAAUGAUAAU------AUAUAAAAC--------GUUUACAAUA-----CAGGAGGGAUCUUAUGUUUCA
```

```
>NC_014551
-UAUAAUGAAAA-AAGUCCAAUAAUUCGGAAUAGUCGUUCCGAAUAGCGGAAUGAUAAU------AAAUAAAAC--------GUUUACAAUA-----CAGGAGGGAUCUUAUGUUUCA
>NC_009848
-UAUAAUCAAUAUAAAUUCGAAUAUUCGGACUUUAUGUUCCGUUAUUCGGAACAAUAA----------------------------------------GGAGGGAUCCUAUGUAUCA
>NC_006270
AUAUAAUCAAUUCAAGUUUGAUUAUUCGGAAUUAAUGUUCCGAAAAUCGGAACAAAACGGGGAUAUACUAAAAUUCGACCGAAUGUGCAUCAAUAUAUAGGGGGGAUUUGAUGAAUCA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..................................(((((((((.....)))))))))...-.............-------------------.(----(((((....)))))).....
.....................(((((((((((....)))))))))))).((((((.....-.............-------------------.----(((((....)))))))))))).


#estA
#The following shows an alignment in 5'-UTR of estA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_003997
GAAGAAGCGUUAGUAAGAUGUACUAAUGGUUCUUCUUUUUUUGUUUUGCCAUUUGAAAGUGUUUCUAAUUAGAUUAUAGAAAUACAAAU
>NC_011658
GAAGAAGCGUUAGUAAGAUGUACUAAUGGUUCUUCUUUUUUUGUUUUGCCAUUUGAAAGUGUUUCUAAUUAGAUUAUAGAAAUAUAAAU
>NC_011772
GAAGAAGCGUUAGUAAGAUGUACUAAUGGUUCUUCUUUUUU-GUUUUGCCAUUUGAAAGUGUUUCUAAUUAGAUUAUAGAAAUAUAAAU
>NC_003909
GAAGAAGCGUUAGUAAGAUGUACUAAUGGUUCUUCUUUUUUUGUUUUGUCAUUUGAAAGUGUUUCUAAUUAGAUUAUAGAAAUAUAAAU
>NC_011725
GAAGAAGCGUUAGUGAAUGGUACUAAUGGUUCUUCUUUUUUUGUUUUGCUAUUUGAAAGUGUUUCUAAUUAGAUUAUAGAAAUACAAAU
>NC_014171
GAAGAAGCGUUAGUAAAAUGUACUAAUGGUUCUUCUUUUUUUGUUUUGCCAUUUGAAAGUGUUUCUAAUUAGAUUAUAGAAAUAUAAAU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((((.(((((((((.....)))))))))..)))))).......(((((.....)))))(((((((((.........)))))))))....
(((((((((((((((.....)))))))))...)))))))).(((((((((..((((((............))))))..)))))...)))))


#yxjA
#The following shows an alignment in 5'-UTR of yxjA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
GAACGAGUUGAAAAGGACAAG---------------UUCUUUUCUGUUUGCUCUUAUUUUCACACUUUCUGCACUUCCAGAAUUUGUGAAGGAUAAGAGCUUUUUUUGUUUCCAUAAU
>NC_014479
GAACGAGUUGAAAAGGACAAG---------------UUCUUUUCUGUUUGCUCUUAUUUUCACACUUUCUGCACUUCCAGAAUUUGUGAAGGAUAGGAGCUUUUUUUGUUUCCAAAAU
>NC_009725
GAACGAGU-GAAAAGCAUAUGAUGCUGUCAGUCUA-UUCUUUUCUUUUGGCUCUUAUUUUCACACUUUCUGGCUUUCAGGAAUUUGUGACGAAUAAGAGUUUUUUUUAUUUCCAUAAU
>NC_006322
GAUCAUGU-AAAAAGUGUAUUGCGCAAACAAUAUAUCUAUUUUUCAUUUGCUCUUAUUUUCAUGCUUUCU---UUAUCGGAACCCAUGAAAAAUAAGAGCUUUUUU-AUUUUCAAAAA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.........((((((....................-..)))))).....((((((((((.....(((((........))))).......)))))))))).................
.........((((((....................-..)))))).............((((((..(((((........)))))..)))))))(((((((((...)))))))))).......
.........(((((((...................-.((((...............((((((((..(((((........)))))..)))))))).))))))))))).............


#zur
```

```
#The following shows an alignment in 5'-UTR of zur and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
UGGGUAUAAUUUUAUCUGCAGUAGAGAAAAUGGCUUGCUGGUCAGACAGCUGCCAUUUUUUUUUCAUACAUGUGAUACGUUCUUAAGCAAAGCGAAAAGGGGGAACCUUCAUGAACGU
>NC_000964
UGGGUAUAAUUUUAUCUGCAGUAAAGAAAAUGGCUUGCUGGACAGACAGCUGCCAUUUUUUUUUCAUACAUGUGAUACGUUCUUAAGCAAAGCGAAAAGGGGGACCCUUCAUGAACGU
>NC_009725
UAGGUAUAAUUUGAUACAUCAUA-AGAAAAUGGCCUGCUGUUCAGACAGCUGCCAUUUUUUUUUGGA----GCGAUAC---------CGUGUUGUAAAGGGGAGGUCCUCAUGAACGU
>NC_014551
UAGGUAUAAUUUUAUACAGCAUA-GGAAAAUGGCCUGCUGUUCAGACAGCUGCCAUUUUUUUUUGGA----GCGAUAC---------CGUGAUGUAAAGGGGAGGUCCUCAUGAACGU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...((((...............((((((((((..((((......)))).)))))))))))..........)))).....................((((....))))........
.((((....((((((.....)))))).....)))((((.....)))).....................................................((((....))))........


#yaaH
#The following shows an alignment in 5'-UTR of yaaH and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
AUCAGCGCUUUUCUUUCAUACAUU-GAUAGCG-AUAUGAAA-GGAGGCGUUUU-UCAUUAAAUUUAUGUGGUAAAACAAGGCGACACUCUUUCUGCUAUCGCUUCACAAUACAGAAC-
>NC_014479
AUCAGCGCUUUUCUUUCAUACAUU-GAUAGCG-AUAUGAAA-GGAGGCGUUUU-UCAUUAAAUUUAUGUGGUGAAACAAGGCGACACUCUCUCUGCUAUCGCUUCACAAUACAGAAC-
>NC_009725
AUCAGCCUCCUUUUUUCAUAUAUUUGAUAGCGGAUAUGAAA-GGAGGCGUUUU-UCAUUAGAUCUAUAUAGUGAAACGGGGCGACACGCUUUCCGCUAUUGCGGCGCGCUACCGGACU
>NC_014551
AUCAGCCUCCUUUUUUCAUACAUUUGAUAGCGGAUAUGAAA-GGAGGCGUUUU-UCAUUAGAUUUAUGUAGUGAAACGGGGCGACACACUUUCUGCUAUUGCGGCGCGCUACCGGAUU
>NC_014019
AAAAGCCUUCUCAUAUGAUGGA---AGUAAGUCAUAUGAAAUGGAGGCUUUUUAUUAUGAAAUUUACACUGUUAAAGCAGGUGACAGUAUAUAUAGUAUUGCAAA------------

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....(((((((((((((((....-.........)))))))-))))).....((-((((((........)))))))).)))))...................................-
.......................(-(((((((.....((((-((...((((((-((((((........))))))...))))))....)))))))))))))).................-
....(((((....(((((((((.-..........((((((-((.....))))-)))).......)))).)))))).)))))...................................-
....((((((((...........-..............))-)))))).....-........(((((...)))))).....((((..............))))...............-
.......(((........(((((.-...((((.........-.....))))..-...........)))))).......)))((((..............))))...............-


#trpS
#The following shows an alignment in 5'-UTR of trpS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
GUCUCCGUUACAAACGUCA-GAGUGAUUCCAUUU------UAAUGGAAUAAUCAGGGUGUACCACGGUUCAUUCGUCCCUUUUUUACA---GGGGAAGAAUGA
>NC_016047
GUCUCCGUUACAAACGUCA-GAGUGAUUCCAUUU------UAAUGGAAUAAUCAGGGUGUACCACGGUUCAUUCGUCCCUUUUUUAUA---GGGGAAGAAUGG
>NC_009725
GCCUCCGUUACCAACGUCUCGAGCGAUUCCAUUG------UAAUGGAAUAAUCAGGGUGCACCACGGUUCAUUCGUCCCUUUUUUCUA---CGGGAAGAAUGG
>NC_014551
GCCUCCGUUACCAACGUCUCGAGCGAUUCCAUUU------UAAUGGAAUAAUCAGGGUGCACCACGGUUCAUUCGUCCCUUUUUUCUA---CGGGAAGAAUGG
>NC_006270
GACUCCGUUACAAACGUCUAAAGCGAUUUCAUUUUGACCAUAAUGAAAUAAUCAGGGUGCACCACGGUUCAUUCGUCCCUUUUCUUUU--AAGGGAAGAAUGG
>NC_011772
CCAGACGUUACUAUGGAUUAGAGAGAUUUCACAGUA---GUGA---AAUAAUUAGGGUGUACCGCGGUCCAUUCGUCCCUAUAGUUUUUU--GGGAUGAAUGG
```

```
#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....((((.................(((((((..-------..)))))))..............)))).((((((.((((((......)---)))))).))))))
....(((((................(((((((..-------..)))))))....(((.......(((.....)))))))........---.......)))))
.....((((...)))).............((((((------(.............(((((..........)))))).((((((......)---)))))))))))


#ydcC
#The following shows an alignment in 5'-UTR of ydcC and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
GA-CAAGUUGUUU-GAGGCUUUUAUGGUACGCAUCU--GUUCUGCCUAAA-CGUGUACCAGCGUACCGUUAAAGUCAAACAAGCGAUUUCUUCCUUUU
>NC_014479
GA-CAAGUUGUUU-GAGGCUUUUAUGGUACGCAUCC--GUUCUGCCUAA--CGUGUACCAGCGUACCGUUAAAGUCAAACAAGCGAUUUCUUCCUUUU
>NC_006270
GA-CGAGUCGUUG-CAGGCUUUUAUGGUACGCACGCCGAUACAGCCGGCCCUGUUCUUAGGCGUACCGUUAAAGUCGAACAAGCGGUUUCUUCCUUUU
>NC_009848
GGGCGAGUUGCUAACAGGCUUUGAUGGUUCGCGGU---ACGCAGUUAAC-----UCUUGGGCGUACUGUUAAAGUCAAACAAGCGGUUUCUUCCUUUU
>NC_009725
GA-CAAGUUGUUU-GAGGCUUUUAUGGUACGCGUC------CGUCCG-------UUCAGGCGUACCGUUAAAGUCAAACAAGCGAUUUCUUCCCUUU
>NC_014551
GA-CAAGUUGUUU-GAGGCUUUUAUGGUACGCGUC------CGGCCG-------UUCAGGCGUACCGUUAAAGUCAAACAAGCGAUUUCUUCCCUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
..-.((((((((-(.((((((.(((((((((....--..........--.........)))))))))..)))))).....))))))))))).........
((-((...)))).-((((.....(((((((((....--..........--.........)))))))))..(((((........)))))...)))))..


#pheS
#The following shows an alignment in 5'-UTR of pheS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012659
GG-GCAGACAUGUUCUGUCAAU---UUAGGGUGGUACCGCGAAUUUACCUCGUCCCUU-UUGGGAGCGAGG---UUUUUUUAUUUUUAAAAUUAGGAGGGUUCCAAA
>NC_011725
GG-GCAGACUUGUUCUGUCAAU---UUAGGGUGGUACCGCGAAUUUACCUCGUCCCUU-UUGGGAGCGAGG---UUUUUUUAUUUUUAAAAUUAGGAGGGUUCCAAA
>NC_009674
GG-ACAGACUUGUUCUGUCAAU---UUAGGGUGGUACCGCGAAUUUACCUCGUCCCUU-UUGGGAGCGAGG---UUUUUUUAUUUUUAAAAUUAGGAGGGUUCCAAA
>NC_010184
GG-GCAGACUUGUUUUGUCAAU---UUAGGGUGGUACCGCGAAUUUACCUCGUCCCUU-UUGGGAGCGGGG---UUUUUUUAUUUUUAAAAUUAGGAGGGUUCCAAA
>NC_002570
GG-AUGCACUCAGUUUGUGCAUCAAUUAGGGUGGUAUCGCGAAAC--CUUCGUCCCUUGUUGGGAACGAAGGUUUUUUUGCACUUGCAGAAAAGUUUAAUUUCUAUA
>NC_009725
-GUCGGCAGAUGAAGUCUGCCUUAAAAAGGGUGGUACCGCGGCCACAACUCGUCCCUUCCUC-AAGGGGCGGGUUUUUUUGUUUUCUGAAAAAGGCAUAGAACG-GU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(-(((((.....)))))).....----................(((((((((((((((..-..))).)))))))---)..(((((....)))))......)))))....
.(-(((((.....)))))).....-----..((((.......(((.......)))))))).-...(((((.........(((((....)))))).........)))))...
.(-(((((.....)))))).....-------...((((((..........)))))).......(-((((((.........-------((((((((..........)))))))))))))))
..-..((((((.............-------...((((((..........)))))))..((((..-..))))...)))---)))((((((....)))))................
.(-(((((.....)))))).....-----..(((((((..((((((.......)).((((..-..)))))))).----.....)))))))....................
```

```
#adk
#The following shows an alignment in 5'-UTR of adk and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
--------AGGAAAUGGAUU-UAUCCAUUCCCUCUUAAUAAAGAGAGGACGGGGGAAAUCGAA--UGAACUUAGUCUUAAUGGGGCUUCCUGGUGCCGGUAAAGGCACACAG
>NC_004722
GUGAGUAAGUGGGAAGAA--UUGUCUUCCCUACAUGCUCAUG-UACUCUGAGGGGGAA-AAGGA-UGAACUUAAUUUUAAUGGGGCUUCCUGGUGCUGGUAAAGGUACACAA
>NC_009674
GUAAGUGAUGGGAAGAGA--AUGUCUUCCCUACAUGCUCAU--UA---UGAGGGGGAA-AAAGA-UGAACUUAAUUCUAAUGGGGCUUCCUGGUGCUGGUAAAGGUACACAA
>NC_010184
----GUAAGUGGGAAGAA--CUGUCUUCCCUACAUGCUCAUG-UAC--UGAGGGGGAA-AAGGA-UGAACUUGAUUUUAAUGGGGCUUCCUGGUGCUGGUAAAGGUACACAA
>NC_011772
----GUAAGUGGGAAGAA--CUAUCUUCCCUACAUGCUCAUG-UAC--UGAGGGGGAA-AAGGA-UGAACUUAAUUUUAAUGGGGCUUCCUGGUGCUGGUAAAGGUACACAA
>NC_014019
GCUGUUUAGUGGGAAGCAAGCUGCUUUCCCAUUAAACGGAUAAGAUACUGAGGGGGAAGAAGAAAUGAAUUUAGUGUUAAUGGGCCUUCCUGGUGCUGGGAAAGGUACUCAA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.........((((((((.--...)))))))).........-.......((((((..-.....-...................)))))).(((((......)))))....
..................--.....((((((..........-........)))))).....-.....-..............((((....))))((((((.....))))))....
.........(((((((..--.......(((((((....)))-..............-.....-..............)))))))))))((((((.....))))))....


#glpX
#The following shows an alignment in 5'-UTR of glpX and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_004722
---------------GUGAUACUUCCGCAAGGGGGAAGCGAAGCAUCACUACUUGCGGAGUACACUUUAUAGAAAAA-CACGGUUCACAAAAUACGGCAGAAAUAUAAAGGCUUAAA
>NC_012581
---------------GUGAUACUUCCGCAAGGGGGAAGCGAAGCAUCACUACUUGCGGAGUACACUUUAUAGAAAAAACACGGUUCACAAAAUACGGCAGAAAUAUAAAGACUUAAA
>NC_011658
---------------GUGAUACUUCCGCGAGGGGGAAGCGAAGCAUCACUACUUGCGGAGUACACUUUAUAGAAAAA-CACGGUUCACAAAAUACGGCAGAAAUAUAAAGACUUAAA
>NC_003909
---------------GUGAUACUUCCGCGAGGGGGAAG-----UAUCACUACUUGCGGAGUACACUUUAUAGAAAAA-CACGGUUCACAAAAUACGGCAGAAAUAUAAAGGCUUAAA
>NC_011772
---------------GUGAUACUUCCGCAAGGGGGAAGCGAAGGAUCACUACUUGCGGAGUACACUUUAUAGAAAAA-CACGGUUCACAAAAUACGGCAGAAAUAUAAAGACUUAAA
>NC_010184
AAUCGGGAUAAGGUGGUGAUACUUCCGUUAAUGGGGAGCGAAGAAUCACUACUAACGGAGUACACUUUAUAGAAAAA-UAAGGUUCACAAAAUACGGCAGAAAUAUAAAGGCUUAAA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
---------------.......(((((((((.....................)))))))))....(((((((......-.........................)))))))).......
---------------((((..(((((....)))))).............(((((...)))))).............-......)))).............................
---------------(((((.(((((.......)))))......)))))...((((.....................-.................)))).................


#ywcI
#The following shows an alignment in 5'-UTR of ywcI and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
AAACAAUUCGCCCGGACGCGUCUAUCAUAGAGUCAUAGGGUU-GCUAGACCCGCUAGUUUUAGCGGAGAAGGAUCGGCCGCCUUUUCCGUUAAA--GCGGAGAGAAAAACAGGCCUGC
>NC_014551
AAACAAUUCGUCCGGCCGCGUCUAUCAUAGAGUCAUAGGGUU-GCUAGACCCGCUAGUUUUAGCGGAGAAGGAUCGGCCGCCUUUUCCGUUAAA--GCGGAGAGAAAA-CAGGCCUGC
>NC_000964
AAAGAAUUCUCUUUCCACGGUCUAUCAUAGAGUCAUGAGUUUUGCUAGAGCCGCUAGUUGCGA-GAAAAGAAAUCGGCCGUCUUUUCUUGCGGGCUGCGGCUGAGAAAACGGGCUGCU
```

```
>NC_014479
AAAGAAUUCUCUUUCCGCAGUCUAUUAUAGAGUCAUGAGUUUUGCUAGAGCCGCUAGUUGCGA-GAAAAGAAAUCGGCCGUCUUUUCCCGUGGGCUGCGGCUGAGAAAACGGGCUGCU

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
................(((((((....................(((((.....)))))....................((((...............))))..........)))))))
................(((((((................((.....)))((((..........(((((.............)))))........)))).........)))))))
....................((((...))))........((((.....))))........................((((................................))))...


#yfjO
#The following shows an alignment in 5'-UTR of yfjO and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
AAAAACAUGAAGGAACCGCCGGCUGCAUGUUAUACUGAAAAGAUGUGAUAUUUCAAAUCGCCGUUUUCC-CAGGAGGAAGGCUUUAU-AUAGAAACGGAGAGAAAAAAACGUGAAUCA
>NC_014551
AAAAACAUGAAGGAACCGCCGGCUGCAUGUUAUACUGAAAAGAUGUGAUAUUUCAAAUCGCCGUUUUCC-CAUGAGGAUGGCUUUAUUAUAGAAACGGAGAGAAUAAAACGUGAAUCA
>NC_000964
ACAA---UGAAGGAAAUCCUGCAAACGUGUUAUACUAGAAAGAUGUGAAAAAACCAUUUACUUUCUGCCAUCCGCAGAAAGCUUCAU-AUAGAAACGGAGAGAACAA--CGUGAACCA
>NC_014479
AAAAAUAUGAAGGAAUCUAGGCAAGCGUGUUAUACUAGAAAGAUGUGAAAAAAACAUUUACUUUCUGCCAUCUGCAGAAAGCUUCAU-AUAGAAACGGAGAGAACAA--CGUGAACCA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
......((((((.............((((((..........))))))............((((((((.....)))))))))))))-...............................
...((((((................))))))..........................((((((((((.....)))))))).((((..-........))))..........))))....
...((((((................))))))..............(((((.......)))))....................(((((-......................)))))...


#ddl
#The following shows an alignment in 5'-UTR of ddl and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_004722
CUAGAUUAGAUUGCCAUUUUAU-UUUG-------------UGUAGCUAUAUA---------GAA------AAUGAAA------UGAAAAACCAAUAAGUGAUGUUAUUUAAUUAUUUA
>NC_003909
CUAGAUUGAGUUGCAAUUUUA------------------UAUAUCUAUGAA---------GAA-AUUUAAGUGGAAAAAGUAUAGAAAACCAAUAAGUGGUGUCAUUUAAUUAUUUG
>NC_008600
UCAGUAGGGGAUGAAGCCCCCC-ACUGAUUAAAGUUUCACUUUAUAUAUUUA-------GAAGAAAGUUAAGUGGAAAAAGUAUAGAGAACCAAUAAGUGGUGUCAUUUAAUUAUUUG
>NC_011773
UCAGUAGGGGAUGAAGCCCCCCCACUGAUUAAAGUUUCACUUUAUAUAUUUAAUAUUUAGAAGAAAGUUAAGUGGAAAAAGUAUAGAGAACCAAUAAGUGGUGUCAUUUAAUUAUUUG
>NC_011658
UCAGUAGGGGAUGAAGCCCCC--ACUGAUUAAAGUUUCACUUUAUAUAUUUA-------CAAGAAAUUUAAGUGGAAAAAGUAUAGAAAACCAAUAAGUGGUGUCAUUUAAUUAUUUG
>NC_011969
UCAGUAGGGGAUGAAGCCCCCC-ACUGAUUAAAGUUUCACUUUAUAUAUUUA-------CAAGAAAGUUAAGUGGAAAAAGUAUAGAAAACCAAUAAGUGGUGUCAUUUAAUUAUUUG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
(((((.((((.......)))).-)))))......(((((((.........------..........)))))))).................(((((((........)))))))
(((((.((((.......)))).-)))))..(((((...)))))).....------........((((((((.............((((.....)))).)))))))).......
......((((......))))((-(((...((((((...)))))).....------...........)))))...................((((((....))))))........
......((((......)))).-..((((((((...((((((..((((((.------...................)))))))..........)))))).....)))))))....
........((((((........-...........(((((((.........------..........)))))))).............((((.....)))).)))))).........


#bioA
```

```
#The following shows an alignment in 5'-UTR of bioA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
AUAAGUU--GUUCUUUUUUAAGAACUACUUGAUUUAAAAAGAAUUGACAGUCAUUUAGAUUAAUGUUAACUAUAUUUAUAAACUAGUUAACAUUAGGGGUGACAAUUGUG
>NC_011658
AUAAGUU--GUUCUUUUUUAAGAACUACUUGAUUUAAAAAUAAUUGACAGUCAUUUAGUUUAAUGUUAACUAUAUUUAUAAACUAGUUAACAUUAGGGGUGACAAUUGUG
>NC_011772
AUAAGUU--GUUCUUUUUUAAGAACUAUUUGAUUUUAAAAUAAUUGACAGUCAUUCGGAUUAAUGUUAACUAUAUUUAUAAACAAGUUAACAUUAGGAGUGACAGUUGUG
>NC_014171
AUAAGUU--GUUCUUUUUUAAGAACUAUUUGAUUUUAAAAUAAUUGACAGUCAUUCGGAUUAAUGUUAACUAUAUUUAUAAACAAGUUAACAUUAGGGGUGACAAUUGUG
>NC_011725
AUAAGUU--GUUCUUUUUUAAGAACUAUUUGAUUUUAAAAUAAUUGACAGUCAUUCAGAUUAAUGUUAACUUUAUUUGUAAAUAAGUUAACAUUAGGGGUGACAAUUGUG
>NC_005957
AUAAGAAAAGCUCCUUUUUCUUUUGUCCUUUUCUUGUAAAUAAU--ACUGCUUUGUAAGAGGAUUUGUCUUAAUUUUGUGGAAUGAA-AAUA-GCAGGGAGAAAUUUAAG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((.--((((((....)))))).)))))..................(((((((...((((((((((((.........)))))))))))))))))))).......
...((((--(((((((.............(((((((..............)))))))(((((((((((.........)))))))))))))).)))))))...


#gerPA
#The following shows an alignment in 5'-UTR of gerPA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_007530
CGCAAUAACGUGUGUGUUUCUUUUAUUUCAAAAAAACACACAUUUUAUUGAAAACGCCCUACAAUAAUAGAAAAGAAAAUUUUAAAAACGAAAGGUGUUUUGUAUGCCAG
>NC_012581
--------CGUGUGUGUUUCUUUUAUUUCAAAAAAACACACAUUUUAUUGAAAACGCCCUACAAUAAUAGAAAAGAAAAUUUUAAAAACGAAAGGUGUUUUGUAUGCCAG
>NC_003909
--------CGUGUGUGUUUCUUUUAUUUCAAAAAAACACACAUUUUAUUGAAAACGCCCUACAAUAGUAGAAAAGAAAACUUUAAAAACGAAAGGUGUUUUGUAUGCCAG
>NC_011658
--------CGUGUGUGUUUCUUUUAUUUCAAAAAAACACACAUUUUAUUAAAAACGCCCUACAAUAGUAGAAAAGAAAAUUUUAAAAACGAAAGGUGUUUUGUAUGCCAG
>NC_011725
--------CGUGUGUGUGUCUUUUAUUUCAAAAAAACACACAUUUUAUUGAAAACGCCCUACAAUAGUAGAAAAGAAAAUUUUAAAAACGAAGGGUGUUUUAUAUGCCAG
>NC_011772
--------UGUGUGUGUUUCUUUUAUUUCAAAAAAACACACAUUUUAUCGGAAACGCCCUACAAUAGUAGAAAAGAAAAUUUUAAAAACGAAGGGUGUUUUGUAUGCCAG

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
--------.((((((((((.((((.....)))))))))))))).......(((((((.........(((((.......)))))).........)))))))........
--------........(((((((.((((((.((((......)))).)))))).....(((....)))))))))).............(((((.....)))))..
--------.((((((((((.((((.....)))))))))))))).....((((((.....(((....)))).........)))))........(((((.....)))))..
--------...((((((..............(((((...(((((...........(((....)))).............)))))).....)))))))))))...
--------..(((((((((........((((.((((......)))).)))))))))...)))).....(((((.......)))))..........(((((.....)))))..


#tdk
#The following shows an alignment in 5'-UTR of tdk and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
--------------------UAAUAGAUUUUUCAA-CAGGCAAGAAGCACU-CUUGCCUUUUUUU----------AUAUUGUCUAAAACACACAGCUGGCAGAGAG-------GAGA
>NC_012659
-------------------UAAAAACAUAAAACAGGCAAGUGUAUCUAUUCGCUUGUCUUUUUUUUUGCGAAAAUAUUAUACCUUUACCCUACUUUUAACGAAAAAGUAGAUGAAAG
>NC_003909
-------------------UAAAAACAUAAAACAGGCAAGUGUAUCUAUUCGCUUGUCUUUUUUUUUGCGAAAAUAUUAUACCUUUACCCUACUUUUAAUUAAAAAGUAGAUGAAAG
```

```
>NC_011725
-------------------UAAAAACAUAAAACAGGCAAGUGUAUGUAUUCGCUUGUCUUUUUUUUUGCGAAAAUAUUAUACCUUUACCCUACUUUUAACUGAAAAGUAGAUGAAAG
>NC_014171
GAAAUACGGUCUUAAGUAAUAAAAACAUAAAACAGGCAAGUGUAUGUAUUCGCUUGUCUUUUUUUUUGCGAAAAUAUUAUACCUUUACCCUACUUUUAACUGAAAAGUAGAUGAAAG
>NC_011772
-------------------UAAAAACAUAAAACAGGCAAGUGUAUGUAUUCGCUUGUCUUUUUUUUUGUGAAAAUAUUAUACCUUUACCCUACUUUUAACUAAAAAGUAGAUGAAAG

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
-------------------.(((((........(((((((((........)))))))))))))).........................((((((((.....))))))))).......
-------------------...................(((((....(((((.............)))))).....)))))........((((((((.....))))))))).......


#malS
#The following shows an alignment in 5'-UTR of malS and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_011658
---AAGAAGAGGGGGGACAAGCCCCUCUUUUUUGUUUACAAUAUAGAAAUGCUAUAUAUAAUAGAGGUAGGGAUGUUAUGAGCAAGUUUACAGUAGCU
>NC_012472
---AAGAAGAGGGGG-ACAAGCCCCUCUUUUUUGUUUACAAUAUAGAAAUGCUAUAUAUAAUAGAGGUAGGGAUGUUAUGAGCAAGUUUACAGUAGCU
>NC_012581
---AAAAAGAGGGGGGACAAGCCCCUCUUUUUUGUUUACAAUAUAGAAAUGCUAUAUAUAAUAGAGGUAGGGAUGUUAUGAGCAAGUUUACAGUAGCU
>NC_011725
---AAGAAGAGGGGG-ACAAUCCCCUCUUUUUUGUUUACAAUAUAGAAAUGCUAUAUAUAAUAGAGGUAGGGAUGUUAUGAGCAAGUUUACAGUAGCU
>NC_011772
---AAGAAGAGGGGGGACAAUCCCCUCUUUUUUGUUUACAAUAUAGAAAUGCUAUAUAUAAUAGAGGUAGGGAUGUUAUGAGUAAGUUUACAGUAGCU
>NC_014479
UUUUUAUGUUUACCCUGCAUGUUUUCCGGCUAUUAAUGCAAACCUAGUAUUAAUUAUGCCAGAAAGGAAGAGGCAGGGUGAAACAAUUCAAAGUAACA

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
---..((((((((((.....)))))))))))(((((((.(((((.......((((.....)))).........)))))).)))))))............
---...................((((..(((((((....((((((.....)))))).))))))))).)))).........................
---.......(((((......)))))..(((((((.......))))))).(((((...........(((((..............)))))).)))))).
---((((((((((((.....))))))))))))).................((((...(((((((..........)))))))))))).............


#hprK
#The following shows an alignment in 5'-UTR of hprK and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012472
CAAAAAGAAAAACAUUUCAUGAUGUGUAUGAAAUGUUUUUUUCUAUUUAUUAGAAACCGAUUUCUUGUUUCCAGAAAAAAAUGGUACAAUAU
>NC_006274
CAAAAAGAAAAACAUUUCAUGAUGUGUAUGAAAUGUUUUUUUCUGUUUAUUAGAAACCGAUUUCUUGUUUCCAGAAAAAAAUGGUACAAUAU
>NC_003909
CAAAAAGAAAAACAUUUCAUGAUAUGUAUGAAAUGUUUUUUUCUAUUUAUUAGAAACCGAUUUCUUGUUUCCAGAAAAAAAUGGUACAAUAU
>NC_011725
CAAAAAGAAAAACAUUUCAUUAUUCGUAUGAAAUGUUUUUUUCUAUUUAUUAGAAACCGAUUUCUUGUUUCCAGAAAAAAAUGGUACAAUAU
>NC_014171
CAAAAAGAAAAACAUUUCAUUAUUCGUAUGAAAUGUUUUUUUUUAUUUAUUAGAAACCGAUUUCUUGUUUCCAGAAAAAAAUGGUACAAUAU
>NC_011772
CAAAAAGAAAAACAUUUCAUUAUUCGUAUGAAAUGUUUUUUUCUAUUUAUCAGAAACCGAUUUCUUGUUUCCAGAAAAAAAUGGUACAAUAU

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
```

```
.....(((((((((((((((.......)))))))))))))))).............((((.(((((.......)))))....))))).......
......((((....))))........((((....((((((((((.......(((((....)))))........)))))))))))))).....
....((((((....((((.............(((((........)))))....))))....))))))..........................
......((((....))))........((((..........((((((.....))))))....(((((.......)))))......)))).....
............(((((.............((((......))))).........(((((.........)))))........)))))).........


#recJ
#The following shows an alignment in 5'-UTR of recJ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
-----------------------------------UUUUCGAAUAUUAUUUGAAACCCUCAGCCUGCUCUAGUAUAAUAGGGUGGUUGAGGGGUGAAU
>NC_005957
ACAUUAUUAAUAUUUUAGUAUAUAGAUAUUGCAUCGUAGUUUGCAUUAUAUUGUCACCCUUAAUCUG-UCUUGUAUAAUGAACAGGUUAAGGGGUGAUU
>NC_006274
AUAUUAUUAACAUUUUAGUAUAUAGAUAUUGCAUCGUAGUUUGCAUUAUAUUGUCACCCUUAAUCUG-UCUUGUAUAAUGAACAGGUUAAGGGGUGAUU
>NC_011725
ACAUCAUUAAAAUUUUAGUAUAUAGAUAUUGCAUCGUAGUUUGCAUUAUAUUGUCACCCUUAAUCUG-UCUUGUAUAAUGAACAGGUUAAGGGGUGAUU
>NC_011772
ACAUCAUUAACAUUUUUGUAUAUAGAUAUUGCAUCGUAGUUUGCAUUAUAUUGUCACCCUUAAUCUG-UCUUGUAUAAUAAACAGGUUAAGGGGUGAUU
>NC_003909
ACAUUAGUAACAUUUUAGUAUACAGAUAUUACAUCGUAGUUUGCAUGAUAUUGUCACCCUUAAUCUG-UCUUGUAUAAUGAACAGGUUAAGGGGUGAUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...............((((((....)))))).......................((((((((((-(............))))))))))).....
....((((((....)))))).............................(((((((((......-.(((((.......)))))...)))))))))


#ykzG
#The following shows an alignment in 5'-UTR of ykzG and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_009725
-AAGGGAUCUUUCGU---UUUUUGAAAGUCCCUU-UUUUGCUCGAGACUUUCCUUAUAACCGUUUUCGAAUAUAAUAGAAUAAGCGAGUCUAACAUACGGCAUUUAAGGAGAGAUUUG
>NC_000964
CAAGGGAUCUUUCAC---UUUUUGAGAGAUCCUUAUUUUGCUCAAGGCUUUCCUUAUAUCCGUUUUCGAAUAUAAUAGAAUGAGCGAGUCUAACAUACGGCAUUUAAGGAGAGAUUUG
>NC_014479
CAAGGGAUCUUUCAC---UUUUCGAGAGAUCCUUAUUUUGCUCAAGGCUUUCCUUAUAUCCGUUUUCGAAUAUAAUAGAGUAAGCGAGUCUAACAUACGGCAUUUAAGGAGAGAUUUG
>NC_009848
-AAAGGAUCUUCCGCACAUUUGCUGAGGGUCCUU-UUUUCUCAGAGACUUUUCUUAUGCCGUUUUUUUAAUAUAAUAGAAAUAGCGAGUGUAACAUACGGUAUUUAAGGAGAGAUUUG
>NC_006270
-AAAGGACCUUCACUC--GUGUGGAAGGGUCCUUUUUUUCUCAGGCGCUUUUCUUAUGACCAAUUUCGAAUAUAAUAGAAAGA-CGAGUCUAACAAUCGGCAGUUAAGGAGAGAUUUG

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
-.(((((((((((.---....)))))))))))).............(((((((((...((((............((((.........)))).....)))).....)))))))))).....
-...............----.(((((((.............)))))))(((((((((...((((.((((................))))........)))).....)))))))))).....
-.(((((((((((.---....)))))))))))).......((((((................)))))).................(((((((....................)))))))
-.(((((((((((.---....)))))))))))).........((((((..(((((.....................)))))..)))))).........................


#ytvB
#The following shows an alignment in 5'-UTR of ytvB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006270
```

```
CAGACAGAACACAUUUUCUGUAUGGUAGUAUCGAAUAUCAUCGCAAGGGG-UCUAGGGGGCUGCUCGAUGGCCUGAAGUCGCUUGACUAAACUAAGGGCUUUAGGAAGGUGAUGA---
>NC_000964
-----A------UUUGCCGGUAUGUAGAUAUCGAAAAUCAUCGGAAUCG--UUUAAGGGGCUG---GAUGGCCUGAAGUCGCUUUACGAAA-UAAGGGCUUUAGGAAGGUGAUGAUGA
>NC_014479
-----A------UUUGCCAGUAUGUAGAUAUCGAAAAUCAUCGGAAUUG--UUUAAGGGGCUG---GAUGGCCUGAAGUCGCUUUACGAAA-UAAGGGCUUUAGGAAGGUGAUGAUGA
>NC_009725
UGCUCA------AUCGCCGGUAUGUAGAUAUCGAAAAUCAUCGUAUUCG--U--AAGGGGCUG---GAUGGCCUGAAGUCGCUUUACUAAA-UAAGGGCUUUAGGAAGGUGAUGA---
>NC_009848
UAGAGAGAAUAGACCUUUUACAUGGAU-UAUGACGGAACAGCAGAAUGGCAUUACAGGGGCUG---GACAGCCU-----------------------------------------

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.....-----.....((((((....))))))...((((((....(((--((((......))---)))))((((((((((.....-....)))))))))..)))))).---
.....-----.....((((((....)))))).................-.......(((((.---...))))).....((((((((.....-.............))))))))..---


#yqeZ
#The following shows an alignment in 5'-UTR of yqeZ and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_006270
GGCGUCUUUUUUUGUGCGUGUUCAUACAAUAGAAAAGUAGUAGAAAGAUGAAACCUUUGUACAUGUAUAACGUAUGUAAUGUUAA----UGAUAAUAGGGGAAGGAGGCCUCAUC
>NC_000964
GACAUCUUUCUAAGAGAGAUGUCUUUUUUUAUACA-----UAAAAAAAUGAAACCUUUGUACAUUUGUUACGUAUGAAGAGAAGGCACUUAUUAUAAAAGGAAGGAGGGAUACAC
>NC_014479
GACAUCUUUCUAAGAGAGAUGUCUUUUUUUAUACA-----UAAAAAAAUGAAACCUUUGUACAUUUGUUACGUAUGAAGAGAAGGCACCUAUUAUAAAUGGAAGGAGGGAUACAC
>NC_009725
GACAUCUUUCCUUGAGAGAUGUCUUUUUUUAUACA-----UAAAAAAAUGAAAC-UAAAUUCAUUUGUUACGUAUAUAAAGAAG------AACGAAACGGGAAGGAGGG-UAUAU
>NC_014551
GACAUCUUUCCUGGAGAGAUGUCUUUUUUUAUACA-----UAAAAAAAUGAAAC-UAAAUACAUUUGUUACGUAUAUAAAGAAG------AAUGAAGCAGGAAGGAGGG-UAUAU
>NC_009848
GGUACUUUUUUUAUACCCUCAUCAUUCUGU---CA-----UAUAAAAAUGAAACCUAUGUACAUUUGUAACGUAUGUAAAGGAACGGUAAAAUGGAAGAUAGAGAGGAGGGAUCA

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....((((((((((((....)))))).....-----.............(((((((.........)))))))....................)))))))........
((((((((((...)))))))))))((((((((((.-----.....(((((...........)))))).....)))))))))).............................
...((((((((.........(((((((......(-----((((..................)))))).........................)))))))))))))....


#dapG
#The following shows an alignment in 5'-UTR of dapG and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
--AAGAGAGAAUUUUCUAAAGACGAAUAGAAGAGAGUAAGGCGC---UAUCAGCCUGCUUCUUCUGUUACGUCCGAA-U-AAUUUGGAGUGAAA-ACAGUGAAGAUAAUUGUUCAA
>NC_014479
--UAGAGAGAAUUUCCUAAAGACGAAUAGAAGAGAGUAAGGCAC---UAUCAGCCUGCUUCUUCUGUUACGUCCGAA-U-AAUUUGGAGUGAAA-ACAGUGAAGAUAAUUGUUCAA
>NC_009725
--ACAAACGUAUUUUCUAUAGGCGAACAGAAGAGAGUAAGGCUC---U----GCCUGCUUCUUCUGUUACGUCAGAC-U-AAUUUGGAGUGAAA-AUAGUGAAGAUCAUUGUUCAA
>NC_014551
-AACAAACGUAUUUUCUAUAGGCGAUCAGAAGAGAGUAAGGCUC---U----GCCUGCUUCUUCUGUUACGUCAGAC-U-AAUUUGGAGUGAAA-AUAGUGAAGAUCAUUGUUCAA
>NC_009848
CAUUCAAUGGAUG--AUGAGGACGAACAGAAGAGAGUUAGGCAU---CUUUCGCCUGCUUCUUCUGUUACGUCAGAA-UGAACUUGGAGUGAAA-ACAGUGAAAAUAAUUGUCCAA
>NC_006270
---------GAUUUCUAACGGGAUGUGAGAAGAGAGUGAGGCAAAAAUGAAGGCCUGCUUCUUCUGUUACGUCCGAAAUCAACUUGGAGUGAAAUAAAGUGAAAAUCAUCGUUCAA
```

```
#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
--..................((((((((((((.(((.(((..---.....)))))))))))))))).)))).(((-(-(((...........-...........)))))))..
--.......................(((((.........((((..---.....)))).((((..(((((((.......-.-........))...)-)))).)))).....)))))).
--................((((.....(((((......((((..---.....)))).)))))))))((((.......-.-........)))).(-(((((.......))))))...


#ykuN
#The following shows an alignment in 5'-UTR of ykuN and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
-----------------AGACAGCGAG-GUGCUGUCUUUUUUUUAUUUAUCUGUUGACAUGAAAAUCAUUAUCAUUUAAAGUGA-UACAUAUGAUAUUGAAAAUCAUUAUCAACUAAU
>NC_014479
-----------------AGACAGCGAU-GUGCUGUCUUUUUUU-AUUUACGCAUUGACAUGAAAAUCAUUAUCAGUUAAAGUGA-UACAUAUGAUAUUGAAAAUCAUUAUCAAUUAAU
>NC_009725
---------------AAAGACAGCAAUCAUGCUGUCUUUUUUU-AUUU-UUUAUUGACAUGAAAAUCAUUAUCAUUUAAAGUGU-UAUAUAUGUUAAUGAAAAUCAUUAUCAAUUA-C
>NC_014551
-------------AAAGAGACAGUAAUCAUGCUGUCUUUUUUUUAUUU-UUCAUUGACAUGAAAAUCAUUAUCAUUUAAAGUAU-UGUAUAAGUUAAUGAAAAUCAUUAUCAAUUA-C
>NC_006270
ACACUAGAAAGGCAGGACUCCAAAAAGGGGACUGCUUUUUUUUGUACGAUUUAUUGACAUGAUAAUCAUUAUCAUUUAAAGUGUAUCUAUACAAUAAUGAAAAUCAUUAUCAAUUAUA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
---------------((((((((((....)))))))))).............(((((.((((...((((((((((.........-.....)))))))))...))))..)))))....
---------------((((((((((....)))))))))).................((((...)))).............-......(((((((((...)))))))))......


#glgB
#The following shows an alignment in 5'-UTR of glgB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
UCAGUUUUUCGCAGAAUUGGU-AAAGUAUAAAAAAAUUCUGUCAUCUUAGUGAGGUGAGCUAUUGAGUGUAAUAAAUUGUGAAGAAGUGAAACGAGAUGAGUUUCAUACCGA------
>NC_006274
UCAGUUUUUCGCAGAAUUGGU-AAAGUAUAAAAAAAUUCUGUCAUCUUAGUGAGGUGAGCUAUUGAGUGUAAUAAAUUGUGAAGAAGUGAAACGAGAUGAGUUUCAUACCGAAAAGUA
>NC_011725
GCAGUUUUUCGCAGAAAUAGUUAAAGUAUAAAAAAAUUCUGUCAUCUAAGUGAGGUGAGCUAUUGAGUGUAAUAAAUUGUGAAGAAGUGAAACGAGAUGAGUUUCAUACAGA------
>NC_011658
UCAGUUUUUCGCAGAAUUGGC-AAAGUAUAAAAAAAUUCUGUCAUCUUAGUGAGGUGAGCUAUUGAGUGUAAUAAAUUGUGAAGAAGUGAAACGAGAUGAGUUUCAUACAGA------
>NC_003909
UCAGUUUUUCGCAGAAUUGGU-AAAGUAUAAAAAAAUUCUGUCAUCUUAGUGAGGUGAGCUAUUGAACGUAAUAAAUUGUGAAGAAGUGAAACGAGAUGAGUUUCAUACAGA------
>NC_014171
GCAGUUUUUCGCAGAAAUAGUUAAAGUAUAAAAAAAUUCUGUCAUCUAAGUGAGGUGAGCUAUUGAAUGUAAUAAAUUGUGAAGAAGUGAAACGAGAUGAGUUUCAUACAGAAAAGUA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....((((((((((.......-..................(((((((...)))))))..(((((....)))))..)))))))))))(((((((.......)))))))....------
..(((((((((((((((...-...........))))))).........)))))..)))))..)))))...............(((((......((((((.......)))))))))).------
((((((((....)))))))).-............((((..(((((((...)))))))).....))))).........((((((.................)))))))...------
..((((((...(((((((...-...........)))))))).((((((...)))))))))..((((.........((((...........)))).......))))).....------
......((((((((((((...-...........)))))).(((((((...)))))))..(((((....)))))............)))))).((((....)))).......------


#ykoY
#The following shows an alignment in 5'-UTR of ykoY and the preditced ConSLOpt structures produced by RNAConSLOpt
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```
>NC_000964
UUUCAUGGAUUG---UAUCCAUCGGCUU-------------------------------------------------------------------------------------
>NC_014479
UUUCAUGGAUUGCGAUAUCCAUCGG-----------------------------------------------------------------------------------------
>NC_006270
GUUCAUGGAUCUUC--AUCCAUCGGCUUUGUUGGCAUGUUUUAAUUAAUGAUAACCAUGCUAGCAAGACCUUUGCCUAAUGUUGGCAGAGGUCUUUUUUGUUUUCUGAAAAUACCCUG
>NC_009725
AUUCAUGGAUCAU---AUCCAUCGGCUUUGUUGGCAUGCC------AAUCAU--UCAUGCUAGCAAGACCUUUGCCUUAUAUCGGCAAAGGUCUUUUUUGCGU----AAAAAA-CCGC
>NC_014551
AUUCAUGGAUCAU---AUCCAUCGGCUUUGUUGGCAUGCC------AAUGAU--UCAUGCUAGCAAGACCUUUGCCUUAUAUCGGCAAAGGUCUUUUUUGCGU----AAAAAAACCGC
>NC_009848
UUACAUGGACUUAA-GUUCCAUCGGCUUUGUUGGCAUGAUUCUACAUAUCA----CAUGCUAGCAAGACCUUUGCCAU-UACAGGCAAAGGUCUUUUUUGCAUUC-----AUAAGCCU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....((((((....-.))))))................-----.....--..........((((((((((((.......))))))))))))........----...........
....((((((....-.))))))....((((((((((((..-----.....--.))))))))))))................(((((((...)))))))..----...........


#oppB
#The following shows an alignment in 5'-UTR of oppB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
-GUCU-AUGUGAAAAACAAAAAACCUCAAGG--UAUAUGGG-ACCUA-----UUUCCCAAUACCUUUCUUACUGA----------UAAUGUAAAAACAAUGGAGGUGUUUCCCCUUGC
>NC_016047
-GUCUUAUUUGUGAAAACAAAAACCUCAAGG--UAUAUGGGGACCUA-----UUUCCCAAUACCUUUCUUACUGAAAGAGUAUAAAAAUGUAAAAAUCAUGGAGGUGUUCCCCCUUGC
>NC_000964
-GGCUACGUCUGAAAAUAAAAGACCUCAAGG--UAUAUGGGGAGAAA-----AGCCCCAAUACCUUUCUUACUGAUGGAGUAUAAAAAUGUAAAAACCAUGGAGGUGUUCCCCCUUGC
>NC_009725
AAGACGGUUCUGAAAACAAAAGACC-CAAGG--UAUAUGGGGAGGAU-----GUCCCCAAUACCUUUCUUACUGAUUAAGUAUAAAAUUGUAAAAAACAUGGAGGUGUU-CACCUUGC
>NC_006270
------------------AAUUGCAUGAAAG--UAUAUGGGGCUUAGACUUUCCCCCCAAUACUUUUAUUUAUGAAAAGAAGUUAAUAGACUGAAUAUUCGGAGGUGUGUAAAAUUGA
>NC_014019
----------GUAACAUCAAUUGUGACAAAGGGUAUAUGGGGCCUGG-----UGCUCCAAUACUUUUCUUUCUUGUGCG---CGAAUUUUGUAAAAAUAUGGAGGUGUGUCAGGGUGU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
-......................(((((((((--(((.((((((...------.)))))))))))))).....................................)))))...........
-.........................(((((--.....(((((...------.)))))(((((((((.....................................)))))))))...)))))


#nagA
#The following shows an alignment in 5'-UTR of nagA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_012581
AACAGACGUACUAAGUUUCCUUUU-UGUUAAACAAAGAGGAAAUUUCAUUAGAAUGUAUGACAACUACUCGCGCAUAUAUUAAGAUGGAAUUAGGCGAAUAAGGUAAUAAUA
>NC_012472
---AGACGUACUAAGUUUCCUUUU-UGUUAAACAAAGAGGAAAUUUCAUUAGAAUGUAUGACAACUACUCGUGCAUAUAUUAAGAUGGAAUUAGGCGAAUAAGGUAAUAAUA
>NC_005957
GAGAGACGUACGAAACUUCCUUUU-UGUUAAACAAAGAGGAAAUUUCAUUAGAAUGUAUGACAACUACUCGUGCAUAUAUUAAGAUGGAAUUAGGCGAAUAAGGUAAUAAUA
>NC_011725
AAGAGACGUAAGAAAUUUCCUUUUCUGUUGAAUAAAAAGGAAAUUUUAUUAGAAUGUAUGACAACUACUCGUGUGUAUAUUAAGAUGGAACUAGGCGAAUAAGGUAAUAAUA
>NC_014171
AAGAGACGUAAGAAAUUUCCUUUUCUGUUGAAUAAAAAGGAAAUUUCAUUAGAAUGUAUGACAACUACUCGUGCGUAUAUUAAGAUGGAACUAGGCGAAUAAGGUAAUAAUA
```

```
>NC_011772
AAUGGACGUAAGAAAUUUCCUUUUUUGUUGAAUAAAAAGGAAAUUUCAUUAGAAUGUAUGACAACUACUCGUGCAUAUAUUAAGAUGGAACUAGGCGAAUAAGGUAAUAAUA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...........((((((((((((.........)))))))))))).....((((((((.......)))))))).(((((.......................)))))...
.........................(((((.............(((((((..(((((((.............)))))))..)))))))..............)))))...
.............((((((((((.........))))))))))(((.........)))).....((((........((((................)))).)))).....
.....((((..((((((((((((.........))))))))))))).....)))).............((((.......................)))).............
..................((((...(((((.............................)))))).....((((.......................)))))..)))).........


#xpt
#The following shows an alignment in 5'-UTR of xpt and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_007530
UUUUU-GCGAAACUCCAAAAGCGCGUCUCUCACUUGUAACGAGUGGUGGCGGCUUUUGGGUUUUUUUAUUGCAUAAGAGGGGGAACAAACAUGAA
>NC_006274
UUUUU-GCGAAACUCCAAAAGCGCGUCUCUCACUUGUAACGAGUGGUGGCAGCUUUUGGGUUUUUUUAUUGCAUAAGAGGGGGAACAAACAUGAA
>NC_005957
UUUUU-GCGAAACUCCAAAAGCGCGUCUCUCACUUGUAACGAGUGGUGGCGACUUUUGGGUUUUUU-AUUGCAUAAGAGGGGGAACAAACAUGAA
>NC_003909
UUUUUUGCGAAACUCCAAAAGCGCGUCUCUCACUUGUAACGAGUGGUGGCGGCUUUUGGGUUUUUUUAUUGCAUAAGAGGGGGAACAAACAUGAA
>NC_014171
UUUUUUGCGAAACUCCAAAAGCGCGUCUCUCACUUGUAACGAGUGGUGGUGGCUUUUGGGUUUUUUUAUUGCAUAAGAGGGGGAACAAACAUGAA
>NC_011772
UUUUU-GCGAAACUCCAAAAGCGCGUCUCUCACUUGUAACGAGUGGUGGCGGCUUUUGGGUUUUUU-AUUGCAUAAGAGGGGGAACAAACAUGAA

#The top 5 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
....(-((((...(((((((((.((((..(((((((...)))))))).)))))))))))))........)))))......................
....(-(((............)))))))))))))))...))))))...((((................)))))...)))))...............
(((((-(........)))))).....((((((.(((((.....((((((................)))))))))))).)))))).........
..(((-(.....(((.......((((..(((((((...)))))))).)))).(((((................)))))))))..)))).....
(((((-(........)))))..((((..(((((((...)))))))).)))))...((((..(((((((((...)))))))))....)))).....


#ycgO
#The following shows an alignment in 5'-UTR of ycgO and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
--------GCGGGACUAAAUGGGCAUCCUCCCUGCGGGGG-UGUCCAUUUCAUCCAUAUC-UAUAAAAAA----GAGGAGGAAGUGCCAUAGAAAACA
>NC_014479
-------AGCGGGACUAAAUGGGCAUCCUCCCUGCGGGGA-UGUCCAUUUCAUCCAUAUC-CAUAAAAAA----GAGGAGGAAGUGCCAUAGAAAACA
>NC_009725
--------GAGGGACUGAAUGGGCAUCCUCCUCGCGGGGGGUGUCCAUUUCA-CCAUAACAUAUAAAGCG----GAGGAGGAAAUGCCAUAGCAAACA
>NC_014551
--------GCGGGACUGAAUGGGCA-CCUCCUCGCGGGGGGUGUCCAUUUCA-CCAUAACAUAUAAAACG----GAGGAGGAAAUGCCAUAGCAAACA
>NC_006270
GGACGAAGGCAGCCUAUUAUAGGCUGCCUUCAAAAAAAGAGAAAUUAGUCUAAAAAUUUGAUAAACGGCAUCUUGGGGGGAGAUUCUUAUUCAGAACG

#The top 3 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
--------........(((((((((.(((((....)))))).)))))))))....................----.......................
--------..........((((.....(((((....)))))).....((((((.....................-------.....)))))))))........
```

```
--------............(((((((((.............................................-----..)))))..)))))..........


#acoA
#The following shows an alignment in 5'-UTR of acoA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
GGGUGAUGCCCGGUCUAUUUUGCAUGCCAUAAAA---CGAGACAAAUGGUUCAGAUCGAACAAAAUGAGACACCUGUCUCAAACUGUCUC-CAGUG
>NC_011773
--------------------------GAUAAUAAUUUUCAAAUUAGGUGAACAAAAGUGACAAAACGAGACAGGUGUCUCAUUUUGUCCACUUUUU
>NC_003909
--------------------------AAUAAUGAUUCUCAAAUUAGGUGAACAAAAGUGACAAAACGAGACAGAUGUCUCAAUUUGUCCACUUUUU
>NC_011772
--------------------------GAUAAUAGUUCUCAAAUUAGGUGAACAAAAGUGACAAAACGAGACAUCUGUCUCAUUUUGUCCACUUUUU
>NC_005957
--------------------------GAUAAUAAUUUUCAAAUUAGGUGAACAAAAGUGACAAAACGAGACUAAUGUCUCAUUUUGUCUACUUUUU
>NC_006274
--------------------------GAUAAUAAUUUUCAAAUCAGGUGAACAAAAGUGACAAAACGAGACUAAUGUCUCAUUUUGUCCACUUUUU

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
--------------------------.........................(((((((((((((.(((((....))))).)))))).)))))))).
--------------------------.................(((((.((((((..((((.............)))).....)))))).)))))...


#rpsB
#The following shows an alignment in 5'-UTR of rpsB and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_014479
AAA------UACACACGCUUAACGAUUUAUGCAGAGGGUGCUGCAGG-CG--GCAGUUCGCACAAAAAUGACCUAAGCGGAGGAAAAAAACCA
>NC_009674
AGUACAAAGUACACACGUUUGCUGAUUUAAGU-GUUGGUGCUACUUU-U-GU--AGUUUACUUAAAGAUGAAGCGGACGGAGGAUAUCAAAAA
>NC_014019
AUU-------ACACACGCUUGUUGAUUC-GGUUGAUGGUGCUACUUUU---UGUAGUUUGGCUGAAGAUGAAAUGAGCGGAGGAGACUUAAAA
>NC_011773
AGUACAAAGUACACACGUUUACUGAUUUAAGU-GUUGGUGCUACGUU----UGUAGUUUGCUUAGAGAUGAAGUAAACGGAGGAUAUCAAAAA
>NC_003997
AGUACAAAGUACACACGUUUGCUGAUUUAAGU-GUUGGUGCUACGUU----UGUAGUUUGCUUAGAGAUGAAGUAAACGGAGGAUAUCAAAAA
>NC_010184
AGUACAAAGUACACACGUUUACUGAUUUAAGU-GUUGGUGCUACGUU----CGUAGUUUGCUUAGAGAUGAAGUAAACGGAGGAUAUCAAAAA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
...............(((((((..(((((((-(.....(((((..-----.))))).)))))))).....)))))))).............
.......(((((..(((((((.....)))))-))..)))))....---------....(((((((.......)))))))).............


#ymdA
#The following shows an alignment in 5'-UTR of ymdA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
ACUUGACAAGGGCGAUGAACACACU-CAUUCCCUGUGAAGGUUCUGUAUGUUGAGAAAAUAGACAAUGUACAUGCCGACACUU--UUUAAGCAACAAC
>NC_014479
ACUUGACAAGGGCGAUGAAAAUACU-CAUUCCCUGUGAAGGUUCUGUAUGUUGAGAAAAUAGACAAUGUACAUGCCGACACUUA-UUUAAGCAACAAC
>NC_009725
```

```
ACUUGACAAGGGC-AUGAGAG-ACU-CAUUCCCUGUGAAGGUUCUGUAUGUUGAGAAAACAGACAAUGUACAUGCCGGCACUUA-UUUAAGCAAAAAC
>NC_014551
ACUUGACAAGGGC-AUGAAAG-ACU-CAUUCCCUGUGAAGGUUCUGUAUGUUGAGAAAACAGACAAUGUACAUGCCGGCACUUA-UUUAAGCAACAAC
>NC_006270
ACUUGACAAGGGCUGUGAAUCCGCUUCACUCCCUGUGAAGGUUCUGUAUGUUGAGAAGA-GUACAAUGUACAUGCCGACACUUACUUUUAGCAAGA--
>NC_009848
ACUUGACAAGGGCAGUGAGG--AUCUCAUUCCCUGUGAAGGCCCUGUAUGUUGAGACAC-AAACAAUGUACAUGCCGACACUUUAUUU--GUAAAA-C

#The top 4 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
.(((((..((((.(((((......)-)))))))).........(((((((((.........)))))))))............-.)))))).......
.(((((((((((((((.....)-))))..........)))))...)))))))..............................-.............
.(((((..(((((...........(-(((.....))))..)))))((((((.................))))))).........-.)))))).......
.(((((....(((((((.....)-))))....((((.....(((((...........)))))).....)))))))).........-.)))))).......


#smc
#The following shows an alignment in 5'-UTR of smc and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_005957
GCAUAGAAUGAAACUUUCUUUUCGUUUGUAAAUGAAAGGAAAGGAAAUCCGUAUAAAAGUGUUUUUGUAUAAAUAACUUUUAUAGCAACGGA----GAAUAGGAGGAAGGCCUUUC-
>NC_000964
-----AAUCCCCCUUAUGA--CUCAGGGGGAUUUCAGUAUGUAUGCCGUCUUAUUUGACAAUGU-----UU-AUGAUAGAAUUG-AAAUACUU--AUUACAUAAGG-AGGAUC-GC-
>NC_009725
-----AAUCCCCCUGUUUC--CCUAGGGGGAUUUCAGUAUGUCUGC-GCCUGAUAUAAGGGGUG-----AUUAUGAUAAUAUUG-AGAUACUU--AUACGAUAAGG-AGGAUCUGG-
>NC_014551
-----AAUCCCCCUGUACC--CCUAGGGGGAUUUCAAUAUGUAUGC-GCCUGAUAUAAGGGUUG-----AUUAUGAUAAUAUUG-AGAUACUU--AUACGAUAAGG-AGGAUCUGG-
>NC_006270
------AUCCCCCUUGCAAAAACCAGGGGGAUUUCAAUGUAUUUUGAGCCUUUUCCAUAGGUU---------AUGAUAGAAUUG-UAAUACUUUAA-UACAUAAGG-AGGAUCAC--
>NC_009848
-----AAUCCCCCUCGUGA--UUCAGGGGGAUUUCACUCUGUUUUCCAUCAUCUUUUUUACUUC-----AU-AUGGUAAGAUGA-UAGUACUUUAAAUACAUAAGG-AGGAUCACUC

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
-----((((((((((...--.)))))))))).............................-----...............-........--...........-.........-
-----.((((.(((((((.--.........(((((((((.....................----........)))))))-)))).....--....)))))))-.)))).....


#dnaA
#The following shows an alignment in 5'-UTR of dnaA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_000964
--UUUCAACAUUUAAUGUGUACGAAUGGUAAGCGC-----CAUUUGCUCUUUUUUUGUGUCUAUAACAGAGAAAGACGCC-AUUUUCUAAGAAAAGGAGGGACGUGCCGGA
>NC_010184
UAUUUUAAAAUACGUUUCGUAUAAAUAUGCAUUAGAAAUAUUUACAGGUUGUACAAUUGUGCGCAACCUU--------AUUCUUUUACCAUCUUUGUAAAGGAGGGACAC-
>NC_004722
GGUUUUAAAAUCGUUUUCGUAUAAAUAUACAUUUUAAUU--UAUUAGGUUGUACAUUUGUGCACAACCUUU-------AUUCUUUUACCAACUUAGUAAAGGAGGGACAC-
>NC_012472
GGUUUUAAAAUACGUUUCGUAUAAAUAUACAUUCUAUAUUUAUUUAGGUUGUACAUUUGUGCGCAACCUU--------AUUCUUUUACCAUCUUAGUAAAGGAGGGACAC-
>NC_008600
GGUUUUAAAAUACGUUUCGUAUAAAUAUACAUUUUAUAUUUAUUCAGGUUGUACAUUUGUGCACAACCUU--------AUUCUUUUACCAUCUUAGUAAAGGAGG------
>NC_009674
GGUUUUAAAAUACGUUUCGUAUAAAUAUACAUUGA-AGUUCAAAGGGGUUGUACAUUUGUGCACAACCUU--------AUUCUUUUAUCAUGUUCGCAAAGGAGGGACAC-
```

```
#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
((((.............(((((((((.((((.................)))).)))))))))..))))..---------.(((((((((.......)))))))))......-
.........(((((...)))))......................(((((((..........)))))))..---------.(((((((((.......)))))))))......-


#exoA
#The following shows an alignment in 5'-UTR of exoA and the preditced ConSLOpt structures produced by RNAConSLOpt
>NC_003997
--UUGUGAUAGCAUGAAAUUUGGAAAGAAACAUCAAGAGGAGGACUAUAAGUGAAGUUCUUUCGUGGAAUGUAAAUGGUUUACGUGCAGUUAUCGCAA
>NC_011725
--UUGUGAUAGCAUGAAAUUUGGAAAUAAACAUCAAGAGGAGGGCUAAAAGUGAAGUUAUUUCAUGGAAUGUAAAUGGUUUGCGAGCAGUUAUCGCAA
>NC_014171
--UUGUGAUAGCAUGAAAUUUGGAAAUAAACAUCAAGAGGAGGACUAUAAAUGAAGUUAUUUCAUGGAAUGUAAAUGGUUUGCGAGCUGUUAUCGCAA
>NC_011772
--UUGUGAUAGCAUGAACUUUGAAAGUGAACAUCAAGAGGAGGACUAUAAGUGAAGUUAUUUCAUGGAAUGUAAAUGGUUUACGUGCAGUUAUUGCAA
>NC_006274
--UUGUGAUAGCAUGAAAUUUGGAAAGAAACAUUAAGAGGAGGACUAUAAGUGAAGUUCUUUCGUGGAAUGUAAAUGGUUUACGUGCAGUUAUCGCAA
>NC_006582
AUCUAUGCUACACUGGGCACUGGAUAAAGAGAGAGGGAGUACGACAACUA-UGAAAUUCUAUCGUGGAAUGUCAAUGGCCUGCGCGCAUGUGUAAAAA

#The top 2 predicted ConSLOpt structures ranked by RankB (structures' associated minimal energy barriers):
--((((((((((..........(((((((.............................)))))))......((((((...))))))....)))))))))
--((((((((((......(((((.........)))))....(((((((..(((((((...)))))))).........)))))))).......)))))))))
```