

## Mfold structures of candidate precursors identified by findMiRNA

Mfold structures of findMiRNA predicted precursor candidates. Predicted miRNA sequence is shown in red. These structures were predicted with Mfold version 3.1 (<http://www.bioinfo.rpi.edu/applications/mfold/>), using the default parameter settings which include the conditions 37° C and 1M NaCl.

### cmr 3

#### **AT1G69800**

```
Structure 1
Folding bases 1 to 130 of 04Aug06-18-24-32
Initial dG = -60.6

      10      20      30      40      50      60
UAAA| - C U U U ACU- UU-- - U
      GUCAA AUGUC CCU GAGUUCUUAAACGCUUCA UGUUCAU UUG AUC AUC A
      CGGUU UACAG GGA CUCAGGGGGUUUGUAAGU ACAAGUA AAC UAG UAG U
CCA-^ C U U U C GUCU UAAC C C
      120 110 100 90 80 70
```

#### **AT1G26990**

```
Structure 1
Folding bases 1 to 94 of 04Aug06-18-28-28
Initial dG = -42.1

      10      20      30      40
UCC| U UU U AA UCA AC
      CCA GAGUUCUU AACGCUUCA UGUU AUAC AAGCC \
      GGU CUCAGGGGG UUGUAAGU ACAA UAUG UUUGG A
UGU^ U U GU C CA --- UU
      90 80 70 60 50
```

#### **AT1G26990**

```
Structure 1
Folding bases 1 to 115 of 04Aug06-18-29-27
Initial dG = -53.9

      10      20      30      40      50
UUC |G UC UA UG U GAUACA U
      UU GUUGGAUG UCC GAGUUCUUC AGCACUUCA UGGG AUUU U
      AG CAACUUAAC AGG CUCAAGGGG UUGUAAGU ACCU UAAA C
UUU ^G CC CC GU C AUUAG- U
      110 100 90 80 70 60
```

#### **AT1G69800**

```
Structure 1
Folding bases 1 to 81 of 04Aug06-18-30-15
Initial dG = -39.2

      10      20      30      40
CUA| UG U U A U
      GAGUUCUUC AGCACUUCA UGGAGA AC AUUUU U
      CUCAAGGGG UUGUAAGU AUCUUU UG UAAAA A
GCC^ GU C - A U
      80 70 60 50
```

#### **At1g69800**

```
Structure 1
Folding bases 1 to 92 of 04Aug06-19-51-10
Initial dG = -40.9

      10      20      30      40
CC| UA UG U AU-- UUCA
      UC GAGUUCUUC AACACUUCA UGGAA UUGUUA G
      AG CUCAAGGGG UUGUAAGU ACCUU GACAAU U
GU^ CC GU C AAUU CGAA
      90 80 70 60 50
```

**At1g26990**

Structure 1

Folding bases 1 to 119 of 04Aug06-19-57-36

Initial dG = -50.3

```
      10      20      30      40      50      60
AGAAA| - UC AU- UU U A UCA AC
      GUCA AAUG CAC GAGUUCUU AACGCUUCA UGUUG AUAC AAGCC \
      CGGU UUAC GUG CUCAGGGG UUGUGAGU ACAAU UAUG UUUGG A
UUG--^ C U- GUU GU C A --- UU
      110      100      90      80      70
```

## cmr 5

### AT1G73360

Structure 1  
Folding bases 1 to 65 of 04Aug09-17-06-04  
Initial dG = -16.2

```
      10      20      30
AUA|   UGCC  A   ACA  AAAG
   GAAGUCA  CG ACCAU  AAC  \
   CUUCAGUU  GC UGGUA  UUG  U
GAC^   CUU-  G   CG-  AAAC
      60      50      40
```

Structure 2  
Folding bases 1 to 65 of 04Aug09-17-06-04  
Initial dG = -15.3

```
      10      20      30
AUA  --- |  CCGA  ACA  AAAG
   GAAGUCA  AUGC  ACCAU  AAC  \
   CUUCAGU  UGCG  UGGUA  UUG  U
GAC  UCU  ^  ----  CG-  AAAC
      60      50      40
```

### AT5G46890

Structure 1  
Folding bases 1 to 133 of 04Aug09-17-06-58  
Initial dG = -36.4

```
      10      20      30      40      50      60
CCAAG|  --   UACC  A   .-CUACGC  UCA  AAA-  U
   UAGA  AAGUCA  CG ACCAG  UUUUCUG  AACCG  AUCGGUU  \
   AUCU  UUCAGUU  GC UGGUC  AAAAGAC  UUGGC  UAGCCAG  A
UUA--^  CC  CUC-  G  \  -----  ---  CUA  A
      130      120      110      80      70
```

```
      90
CCA AAA  CA
      GGU  A
      CCA  C
CAA---  UU
      100
```

Structure 2  
Folding bases 1 to 133 of 04Aug09-17-06-58  
Initial dG = -36.0

```
      10      20      30      40      50
CCAAG  --   UACC  A   .-CUACGC  .-UC  AA
   UAGA  AAGUCA  CG ACCAG  UUUUCUG  AAACCG  \
   AUCU  UUCAGUU  GC UGGUC  AAAAGAC  UUUGGC  A
UUA--^  CC  CUC-  G  \  -----  \  --  UA
      130      120      110      80      60
```

```
      70
AA  |  AU
   GACCG  A
   UUUGC  A
   --  ^  CU
```

```
      90
CCA AAA  CA
      GGU  A
      CCA  C
CAA---  UU
      100
```

## cmr 6

### AT1G29270

Structure 1  
Folding bases 1 to 121 of 04Aug25-19-45-26  
Initial dG = -50.7

```
      10      20      30      40      50      60
AAUGC|      A      A      A      -      C      UCUU-      CU
      AUUACAGGGUA GAUCUCU UUGGCAGG AAC CAUUA UUAGA      UGCAU C
      UAAUGUCCCGU UUAGAGG AACCGUCU UUG GUGAU AAUUU      ACGUA U
CUUCU^      -      A      A      A      U      UCGUU      UU
      .      110      100      90      80      70
```

### AT2G34210

Structure 1  
Folding bases 1 to 91 of 04Aug25-19-49-48  
Initial dG = -39.9

```
      10      20      30      40
ACA|      C      A      U      U      CCCU-      UA
      GGGCGAAUC UCU UUGGCAG GGAAG UGAUGA      UA \
      UCCGUUUAG AGG AACCGUC CCUUU ACUACU      AU U
CGC^      -      A      U      U      CUUUU      UG
      90      80      70      60      50
```

### AT5G62165

Structure 1  
Folding bases 1 to 132 of 04Aug25-19-52-03  
Initial dG = -67.7

```
      10      20      30      40      50      60
ACGA|      -      A      U      A      C      U      UUU      AUCUUUU
      UAAGCGGA GCAGU AUAGGGCA CUUUUCU UUGGCAGG GAC UGGCUA      GU      G
      AUUCGCCU CGUCA UGUCCCGU GAGAGG AACCGUUC CUG AUCGGU      CA      U
CAA-^      U      C      U      A      A      U      UAU      GUUCUUG
      130      120      110      100      90      80      70
```

### AT2G34210

Structure 1  
Folding bases 1 to 82 of 04Aug25-19-54-07  
Initial dG = -37.7

```
      10      20      30      40
ACU|      A      A      UC-      G-      AGAU
      GGGCGAAU CUCCU UGGCAGA      GCAUU      GCU \
      CCCGUUA GAGGA ACCGUCU      CGUAA      UGA      A
CGC^      -      A      CUU      AA      ACGU
      80      70      60      50
```

### AT1G63010

Structure 1  
Folding bases 1 to 137 of 04Aug25-19-55-29  
Initial dG = -61.0

```
      10      20      30      40      50
CUC|      C      A      C      -CUUCCAA      CAC
      ACUAGUUUUAGGGCG CUCUCC UUGGCAGGUC UUA      AUAUA      A
      UGGUCAAGUCCCGU GAGAGG AACCGUCCAG AAU      UAUUA      U
ACU^      U      A      U      \      -----      ACA
      130      120      110      100      60
```

```
      70
----- A      AAA
      GA UAUCG      A
      CU GUAGC      U
      AUUUAG      A      CUU
      90      80
```

Structure 2

Folding bases 1 to 137 of 04Aug25-19-55-29  
Initial dG = -60.7

```
      10      20      30      40      50      60
CUC          C      A      C      .-CUUCCAAAUAUACA |C
ACUAGUUUUAGGGCG CUCUCC UUGGCAGGUC UUUA      CAUA A
UGGUCAAAGUCCCGU GAGAGG AACCGUCCAG AAAU      GUAU U
ACU          U      A      U      \ ----- ^A
      130      120      110      100
```

```
              70
AA----- AAA
              UAUCG A
              GUAGC U
AUUUAGCUA   CUU
              90      80
```

Structure 3

Folding bases 1 to 137 of 04Aug25-19-55-29  
Initial dG = -59.9

```
      10      20      30      40      50      60
CUC          C      A      C      .-CUUCCAAAUAUACA C
ACUAGUUUUAGGGCG CUCUCC UUGGCAGGUC UUUA      CAUA A
UGGUCAAAGUCCCGU GAGAGG AACCGUCCAG AAAU      GUAU U
ACU          U      A      U      \ ----- A
      130      120      110      100
```

```
              70      80
AAU| AA U
              AUCGA AUU \
              UAGCU UAG C
AUU^ AG C
              90
```

## cmr 7

### AT5G35360

Structure 1  
Folding bases 1 to 127 of 04Aug07-18-54-55  
Initial dG = -45.7

```
      10      20      30      40
AG-| A      C      .-UACCCA      .-A A
    GUA UACCCGAACC GAACCGA      CGGGUAC CUU C
    CGU AUGGGCUUGG CUUGGCU      GCCCAUG GGA A
GAG^ -      C      \ ----- \ - U
      120     110           80

                        50      60
                        ACCCAUC      AA
                                AGUGUAA \
                                UCAUAUU U
                        C----- CC
                                70

                        90
                        CCCU- UC
                                GAA G
                                UUU U
                        UGUUU UU
                        100
```

Structure 2  
Folding bases 1 to 127 of 04Aug07-18-54-55  
Initial dG = -43.5

```
      10      20      30      40      50
AG- A      C      .-UACCCA      ACUUACAU | CCUCA
    GU AUACCCGAACC GAACCGA      CGGGUAC      AGGA \
    CG UAUGGGCUUGG CUUGGCU      GCCCAUG      UCCU \ G
GAG -      C      \ ----- CUCAUAU- ^ AAAAUGU
      120     110           80      70      60

                        90
                        CCCU- UC
                                GAA G
                                UUU U
                        UGUUU UU
                        100
```

### AT3G28410

Structure 1  
Folding bases 1 to 119 of 04Aug07-18-56-17  
Initial dG = -37.7

```
      10      20      30      40      50      60
UUA|      C      UA A      UAC      ACAUA- ACCC- C      AAA
    UACUCGAACC GAACCGA      CC CGAG      ACUU      GG      AU AGUGUA \
    AUGGGCUUGG CUUGGCU      GG GCUU      UGAA      CC      UA UCAUAU U
CUC^      C      -- -      UU-      CAAACC      GCCCA U      ACC
      110     100           90      80      70
```

### AT5G35340

Structure 1  
Folding bases 1 to 56 of 04Aug07-18-57-00  
Initial dG = -23.1

```
      10      20      30
AAUAA|      C      UUU CAA
    CCGAACC GAACCGA      GCU A
    GGCUUGG CUUGGCU      UGG U
AAAUA^ -      --- UUC
      50      40
```

Structure 2  
 Folding bases 1 to 56 of 04Aug07-18-57-00  
 Initial dG = -22.9

```

      10      20
AAU----- C -- | G
      ACCGAA CCGAAC GAUUU C
      UUGGCUU GGCUUGG CUAAA U
AAAUAGGC - UU ^ C
      50      40      30
  
```

**AT2G14960**

Structure 1  
 Folding bases 1 to 88 of 04Aug07-19-03-29  
 Initial dG = -20.1

```

      10      20      30
UCUACC| C .-ACCCAUAU C
      CGAAC GAACGGAUU GC C
      GCUUGG CUUGC UUAG CG A
UUUUUU^ U \ ----- G
      80      70
  
```

```

      40
CCAACU----- AA
              GU \
              CA C
ACUAUUUUUAAAC AU
              60      50
  
```

Structure 2  
 Folding bases 1 to 88 of 04Aug07-19-03-29  
 Initial dG = -19.8

```

      10      20      30
UCUACC      C      .-ACCCAUAUGCC GC
      CGAACC GAACGGAU      CAG C
      GCUUGG CUUGCUUAG      GUC C
UUUUUU      U      \ ----- AA
      80      70      40
  
```

```

      50
      UAAC | CCA
            UAA A
            AUU A
      ACU-^ UUU
            60
  
```

Structure 3  
 Folding bases 1 to 88 of 04Aug07-19-03-29  
 Initial dG = -19.5

```

      10      20      30
UCUACC      C      .-UUACCCAUAU C
      CGAACC GAACGGA      GC C
      GCUUGG CUUGCUU      CG A
UUUUUU      U      \ ----- G
      80      70
  
```

```

      40      50
      CCAA | UAACUAACC
            CUG      \
            GAC      A
      A--- ^ UAUUUUUAA
            60
  
```

**cmr 75**

**AT5G08740**

Structure 1  
Folding bases 1 to 108 of 04Aug07-19-26-06  
Initial dG = -48.2

```
      10      20      30      40      50
UUC| G      U      U      C      AAAUUC
   CU UAACAACAA ACGACGUUGUUU GU GUAACGAUGAAACU A
   GA AUUGUUGUU UGCUGCAGCAA CA UAUUGUUGCUUUGA A
AAA^ G      U      C      U      AACUUUA
      100     90     80     70     60
```

Structure 2  
Folding bases 1 to 108 of 04Aug07-19-26-06  
Initial dG = -48.1

```
      10      20      30      40      50
UUC G      U      U      C      --- | C
   CU UAACAACAA ACGACGUUGUUU GU GUAACGAUGAAACU AAAUU \
   GA AUUGUUGUU UGCUGCAGCAA CA UAUUGUUGCUUUGA UUUAA A
AAA G      U      C      U      AAC ^ A
      100     90     80     70     60
```

**AT5G37820**

Structure 1  
Folding bases 1 to 105 of 04Aug07-19-26-54  
Initial dG = -35.9

```
      10      20      30      40      50
UUCU|      U      -- C      UACAAAA      U      AA
   AUCAAAACGACGUCGUUUUA GAGU UC GUU      AAAUC AAAGC C
   UAGUUUUGCUGCAGCAAAAU CUUA AG CAA      UUUAG UUUUG G
AAUU^      -      AA A      -----      -      CU
      100     90     80     70     60
```

Structure 2  
Folding bases 1 to 105 of 04Aug07-19-26-54  
Initial dG = -34.2

```
      10      20      30      40      50
UUCU      U      CCG | ACAAAA      U      AA
   AUCAAAACGACGUCGUUUUA GAGUU UUU      AAAUC AAAGC C
   UAGUUUUGCUGCAGCAAAAU CUUAA AAG      UUUAG UUUUG G
AAUU      -      --- ^ ACAA--      -      CU
      100     90     80     70     60
```

**cmr 75 - AT4G05520**

Structure 1  
Folding bases 1 to 71 of 04Aug07-19-27-48  
Initial dG = -26.0

```
      10      20      30
GAAU|      A      CGAUU      UCA
   CAAAACGACG CGUUUCUUA      AUGGC \
   GUUUUGCUGU GCAAAGAUU      UACUG U
AAUC^      A      U----      UUU
      70     60     50     40
```

**cmr 84**

**AT3G45850**

Structure 1  
Folding bases 1 to 185 of 04Aug07-19-43-19  
Initial dG = -54.2

```
AAA| 10      20      30      40      50      60      70
   G      UGUU      UAG----  --      C      A      U      UUA-  UA  U      U-  UC
   CAG GGC GGAUCUA      GAGAC      GUA GGCAC--GCGC CUAU CUAU UG      AAG GU UUAU GA \
   GUC CCGCCUAGAU      CUUUG      CAU CCGUG CGUG GAUA GGUU AC      UUC UA AGUUA CU A
UGG^ A      ----      UUUUAAA AC \      A      C      U      UCGG      UC  U      UU  UC
180      170      160      150      110      100      90      80

120      130
CCCAGGUUA      UAA
      AUAUUG \
      UAUAUU A
-----      UUU
140
```

Structure 2  
Folding bases 1 to 185 of 04Aug07-19-43-19  
Initial dG = -52.9

```
AAA 10      20      30      40      50      60      70      80
   G      UGUU      UAG----  --      .-GC| CUA--  AAU      GU      UUAUUUG      CUU
   CAG GGC GGAUCUA      GAGAC      GUA GGCAC      GCC      UACU UGUUAAA AGUU      AUCA C
   GUC CCGCCUAGAU      CUUUG      CAU CCGUG      UGG      GUGA ACGGUUU UCGG      UAGU U
UGG^ A      ----      UUUUAAA AC \      --^ ACCCC GAU      AC      UUCUCUA UAU
180      170      160      150      120      110      100      90

130
UA      UAA
      AUAUUG \
      UAUAUU A
--      UUU
140
```

Structure 3  
Folding bases 1 to 185 of 04Aug07-19-43-19  
Initial dG = -52.7

```
AAA 10      20      30
   G      UGUU      .-UA | A
   CAG GGC GGAUCUA      GAGAC      GG--UAGGGC C
   GUC CCGCCUAGAU      CUUUG      CC AUCCCG G
UGG^ A      ----      \ -- \ ^ C
180      170      120      40

50      60      70      80
-- AAU      GU      UUAUUUG      CUU
      UACU UGUUAAA AGUU      AUCA C
      GUGA ACGGUUU UCGG      UAGU U
CC      GAU      AC      UUCUCUA UAU
110      100      90

130
A----- UA      UAA
      GGU AUAUUG \
      CCG UAUAUU A
UUUUAAACAUACC UG      UUU
160      150      140
```

Structure 4  
 Folding bases 1 to 185 of 04Aug07-19-43-19  
 Initial dG = -52.3

```

      10      20      30
AAA  G      .-U |UG  .-C -   A
      CAG GGC GGAUCUA  GU AGA  UAG GUAGGGC C
      GUC CCGCCUAGAU  CG UCU  AUC UAUCCCG G
UGG  A      \ - ^GU  \ -   A   C
      180      170      50      40
  
```

```

              60
          AU  ----- A  UU
              UGUUAA  AGU GUU A
              AUAGUU  UCA UAG A
          CU  AUUCU  C  UU
              90      80      70
  
```

```

100      110
.-UCAUUU  A
          GGCAU \
          CCGUG G
 \ -----  A
  
```

```

120      130
CCA----- UA  UAA
              GGU AUUUG \
              CCG UAUAU  A
CUUUUUUUAAACAUAACC  UG  UUU
              160      150      140
  
```

Structure 5  
 Folding bases 1 to 185 of 04Aug07-19-43-19  
 Initial dG = -52.1

```

      10      20      30
AAA  G      UGUU  .-UAG  A
      CAG GGC GGAUCUA  GAGAC  GUAGGGC C
      GUC CCGCCUAGAU  CUUUG  UAUCCCG G
UGG  A      ---- \ ---  C
      180      170      40
  
```

```

          50      60      70
ACUAAU----- | .-AGUUUUAAUU UC
              UGUUAAAGU  GA \
              AUAAUUUUA  CU A
UUUUAAACAUAACCCCGUGU  ^  \ ----- UC
              160      150      140      80
  
```

```

          90      100
UUUUU  GAUUAU  CU-  CU  GG
          UUAUA  GGACC  CAUUU  C
          AAUG-  AUU  CC  AU
              130      120      110
  
```

**AT5G34853**

Structure 1  
 Folding bases 1 to 64 of 04Aug07-19-44-53  
 Initial dG = -16.8

```

      10      20      30
UGU---| U      CCC G-   A
          AAA AAUUAGUGGUG  GA  UAGAAU \
          UUU UUA GUCACCGC  CU  AUCUUG A
UUUUUU^ U      --- AG   C
          60      50      40
  
```

## cmr 165

### AT3G30220

Structure 1  
Folding bases 1 to 93 of 04Aug07-19-53-32  
Initial dG = -25.0

```
      10      20      30      40
AUU|  -  A-  G GC - C  A  UU  C
      AUCCAG AUC GGAUU G CU UG AUGGU UUU GUUUUC U
      UAGGUC UAG UCUAG C GA AC UACUA AGG UAGGAG G
UCC^  C GC G UA C - C U- A
      90      80      70      60      50
```

### AT1G32230

Structure 1  
Folding bases 1 to 113 of 04Aug07-19-54-06  
Initial dG = -51.8

```
      10      20      30      40
CAU|  -  G  .-GC  UAA  UUU
      AAUCCGGAUCCGU AUCCG AUCC CGGAUUCG AUGC \
      UUAGCCUAGGCA UAGG UAGG GCCUAGGC UAUG A
AGC^  C - \ -- C-- CCC
      110      100      90      60      50
```

```
      70
      UCGCAC U
      CCGG U
      GGCU A
      UCUUUU U
      80
```

Structure 2  
Folding bases 1 to 113 of 04Aug07-19-54-06  
Initial dG = -49.5

```
      10      20      30      40
CAU  -  G  .-G | UC-- U
      AAUCCGGAUCCGU AUCC GAUCC CCGGAU GUAAA \
      UUAGCCUAGGCA UAGG CUAGG GGCCUA CAUUU G
AGC  C - \ - ^ UGCC C
      110      100      90      50
```

```
      60      70
      AUCCGUCGCAC U
      CCGG U
      GGCU A
      UCUUUU----- U
      80
```

## cmr 195

### AT1G19900

Structure 1  
Folding bases 1 to 154 of 04Aug07-19-59-32  
Initial dG = -76.5

```
      10      20      30      40      50      60
AUAGUC|      U      .-CUUA      A
      ACUUUUCACUGUUUGAU CGUACACUUGGAUUGUACAUCACUUUU      UAC A
      UGAAAAGUGACAAACUA GCAUGUGAAUCUAACAUGGGUGAAAA      AUG A
AAACUA^      U      \ ----      U
      150      140      130      120      110
```

```
      70      80
      A      CU      UU
      AGUGUACG GUGUAU U
      UUACAUGU UAUUAU U
      -      U-      UA
      100      90
```

Structure 2  
Folding bases 1 to 154 of 04Aug07-19-59-32  
Initial dG = -76.2

```
      10      20      30      40      50      60      70
AUAGUC      U      CUUA      |      ---      U      GC
      ACUUUUCACUGUUUGAU CGUACACUUGGAUUGUACAUCACUUUU      UACAAAUGUA      AAG GUAC \
      UGAAAAGUGACAAACUA GCAUGUGAAUCUAACAUGGGUGAAAA      AUGUUUAU      UUU UAUG U
AAACUA      U      \ ----      U      ^      AUA      U      UG
      150      140      130      120      110      100      90      80
```

### AT2G12480

Structure 1  
Folding bases 1 to 117 of 04Aug07-20-54-15  
Initial dG = -40.3

```
      10      20      30      40
UUC|      -      .-UU      AGA-      U
      ACUGUU GAUUCGUACACUU      AGUGUAU      UGUAUG A
      UGAUAA CUAAGCAUGUGAA      UCACAUG      ACAUAU A
AAA^      A      \ --      CGAC      A
      110      100      60      50
```

```
      70
      UAU      C      A
      AUUUGUACA UA A
      UAGACAUGU AU A
      CU-      U      A
      90      80
```

Structure 2  
Folding bases 1 to 117 of 04Aug07-20-54-15  
Initial dG = -38.6

```
      10      20      30      40
UUC      -      .-U      --      AAUAUA
      ACUG UUGAUUCGUACAC      UUUAGUGUAUAGAUGUA      UGUA      \
      UGAU AACUAAGCAUGUG      AAAUCACAUGUUUAU      ACAU      C
AAA      A      \ -      UC      GCGACA
      110      100      70      60      50
```

```
      80
      AAUA|      UAC
      UUG      A
      AAC      G
      ----^      UUA
      90
```

**AT2G39795**

Structure 1  
Folding bases 1 to 220 of 04Aug07-20-55-52  
Initial dG = -144.8

```

      10      20      30      40      50      60      70      80      90      100
AAAA|          -          C          U          GC
  UAGUCACUUUACUAUUCAUUUUUGCAAAAUAGUCACUUUU CACUGUUUGAUU GUACACUUGGAUUGUACAUCACUUUUAGUGUACAAAUAUA AAA GUAC \
  AUCAGUGAAAUGAUAAGUAUUAAACGUUUUUAUCAGUGAAAA GUGACAAACUAA CAUGUGAACCUAAACAUGUAGUGAAAAUCACAUGUUUAUAU UUU UAUG U
UUC-^          A          A          U          U          U          U          U          U          U          U          U
.      210      200      190      180      170      160      150      140      130      120      110

```

**AT4G15280**

Structure 1  
Folding bases 1 to 135 of 04Aug07-20-57-29  
Initial dG = -70.3

```

      10      20      30      40      50      60
UUC|          G          U          A          U          GC
  ACUGUUUGAUUCGUAUACUU GAU GUACAUCUUUUUAGUGUACA AUGUA AAG GUAC \
  UGACAAACUAAGCAUGUGAA CUA CAUGUGGUGAAAUCACAUGU UACAU UUU UAUG U
AAA^          G          U          A          U          U          U          U          U          U          U          U
      130      120      110      100      90      80      70

```

Structure 2  
Folding bases 1 to 135 of 04Aug07-20-57-29  
Initial dG = -70.1

```

      10      20      30      40      50
UUC          G          U          A          AA
  ACUGUUUGAUUCGUAUACUU GAU GUACAUCUUUUUAGUGUACA GUA \
  UGACAAACUAAGCAUGUGAA CUA CAUGUGGUGAAAUCACAUGU CAU G
AAA          G          U          \          ---          GU
      130      120      110      100      90      60

      70
      GC | UU
          UGUGUAU \
          ACAUAUA U
          AU ^ UU
              80

```

Structure 3  
Folding bases 1 to 135 of 04Aug07-20-57-29  
Initial dG = -67.6

```

      10      20      30      40      50      60
UUC          G          U          A          AAA |CGCUGU
  ACUGUUUGAUUCGUAUACUU GAU GUACAUCUUUUUAGUGUACA AUGU GUGUA G
  UGACAAACUAAGCAUGUGAA CUA CAUGUGGUGAAAUCACAUGU UACA UUAUAU U
AAA          G          U          A          --- ^UUUUUA
      130      120      110      100      90      80      70

```

**AT1G11680**

Structure 1  
Folding bases 1 to 278 of 04Aug07-21-01-36  
Initial dG = -169.6

```

      10      20      30      40      50      60      70      80      90      100      110      120      130
AAU|          A          A          A          A          A          A          A          A          A          A          A
  UAGUCACUUUUUCAAACUAAUAG AAAGUAGUCACUUUAUCUAUUAUAAUUUGCAAAAUAGUCUUUUUACUGUUUGAUUUGUA AUUU GAUUGUACUACUUUUAGUGUACAAAU UA AUAC \
  AUCAGUGAAAAGUUUGAAUUAUC UUUCAUCAGUAAAAGUAAGUAUUAUAAACGUUUUGUUGUAGUGAAAAGUGACAAACUAGCAU UGAA CUACAUGUAGUGAAAUCACAUGUUUA AU UGUG C
UUC-^          C          C          G          C          C          C          C          C          C          C          C          C
      270      260      250      240      230      220      210      200      190      180      170      160      150

```

Structure 2  
Folding bases 1 to 278 of 04Aug07-21-01-36  
Initial dG = -168.4

```

      10      20      30      40      50      60      70      80      90      100      110      120      130
AAU          A          A          A          A          A          A          A          A          A          A          A
  UAGUCACUUUUUCAAACUAAUAG AAAGUAGUCACUUUAUCUAUUAUAAUUUGCAAAAUAGUCUUUUUACUGUUUGAUUUGUA AUUU GAUUGUACUACUUUUAGUGUACAAAU UAU A
  AUCAGUGAAAAGUUUGAAUUAUC UUUCAUCAGUAAAAGUAAGUAUUAUAAACGUUUUGUUGUAGUGAAAAGUGACAAACUAGCAU UGAA CUACAUGUAGUGAAAUCACAUGUUUA AUA A
UUU          C          C          G          C          C          C          C          C          C          C          C          C
      270      260      250      240      230      220      210      200      190      180      170      160

```

```

140
CAC- G
AGU U
UCA A
CAUU C
150

```

```

Structure 3
Folding bases 1 to 278 of 04Aug07-21-01-36
Initial dG = -162.0

    10      20      30      40      50      60      70      80      90      100      110      120
AAU      |      A      A      A      A      A      A      A      A      A      A      A
UAGUCACUUUUCAAACUUAAUAG AAAGUAGUCACUUUACUAUAUAUUUCCAAAUAAGUCAUUUUUCACUGUUUGAUUUUGUA AUUU GAUUGUACAUCACUUUU GUGUA A
AUCAGUGAAAAGUUUGAAUUAUC UUUCAUCAGUGAAAUGAUAAGUAUUUAACGUUUUGUAGUGAAAAGUGACAAACUAAGCAU UGUA CUAACAUGUAGUGAAAA CACAU U
UUU      |      C      C      C      C      C      C      C      C      C      C      C
    270      260      250      240      230      220      210      200      190      180      170      160
                                     A      CUUU
                                     GUGUACA \
                                     CACAUGU A
                                     U      UUAC
                                     160

```

**AT2G18540**

```

Structure 1
Folding bases 1 to 122 of 04Aug07-21-02-53
Initial dG = -33.0

    10      20      30      40      50      60
UUA|  UA  U  U  A  A  C  C  A  CC  AUA
UUUU  CUGUUU AUU GUACACUUA AUU GUA AACA UUUUA UGU AGAU \
AAAA  GACAAA UAA UAUGUGAAU UAG CAU UUGU AAAAU ACA UCUA U
AUG^  GC  C  C  C  A  A  A  C  A-  AUG
120    110    100    90    80    70

```

## cmr 201

### AT5G06700

Structure 1  
Folding bases 1 to 74 of 04Aug07-21-19-55  
Initial dG = -24.7

```
      10      20      30
UAA|  U      UAGA  GAAG CG  G
      UCGA CUCUCUAA GUUGGU UA  UUU A
      AGCU GAGAGAUU CAGCCG AU  AAG A
UAA^  -      UG--  GAA-  AA  A
      70      60      50      40
```

### AT2G19180

Structure 1  
Folding bases 1 to 75 of 04Aug07-21-20-33  
Initial dG = -20.1

```
      10      20      30
UUC|  CUAUU-  UG UUAAG  U
      AGAUCUCU  UGAG  A  AGAAACA U
      UCUAGAGA  GCUU  U  UCUUUGU U
CGA^  UAAGAU  GU UGGG--  U
      70      60      50      40
```

Structure 2  
Folding bases 1 to 75 of 04Aug07-21-20-33  
Initial dG = -20.1

```
      10      20      30
UUC  ---  |AU  UG UUAAG  U
      AGAUCUC  UCUA  UGAG  A  AGAAACA U
      UCUAGAG  AGAU  GCUU  U  UCUUUGU U
CGA  AUA  ^--  GU UGGG--  U
      70      60      50      40
```

# cmr 214 - miR-TIR1

AT3G55740

Structure 1

Folding bases 1 to 180 of 04Aug11-17-14-42  
Initial dG = -67.3

```
      10      20      30      40      50
CAC| A      A      U      U--- U      .-U UU
   AGC ACUAGAGAA GGAUCCAAAGGGGAUCGCAU GAUCC AA UAAGC GA \
   UCG UGGUUUCUU CUUAGGUUUCUCUAGCGUA CUAGG UU AUUCG CU U
CCU^ A      A      -      CCUU C      \ - UA
.      170      160      150      140      130      60
```

```
              70      80      90
CCCAAUAA----- UU      UUCUCA G
              UUGUUUUUU UUC      AUC A
              AACAAAAAG AAGG      UAG A
UUUUACAAACCUUA -- ----- A
              120      110      100
```

Structure 2

Folding bases 1 to 180 of 04Aug11-17-14-42  
Initial dG = -66.2

```
      10      20      30      40      50      60
CAC A      A      U      U--- U      .-UGAU |UC
   AGC ACUAGAGAA GGAUCCAAAGGGGAUCGCA UGAUCC AA UAAGC UUAU C
   UCG UGGUUUCUU CUUAGGUUUCUCUAGCGU ACUAGG UU AUUCG AAUA C
CCU A      A      -      CCUU C      \ ---- ^AC
.      170      160      150      140      130
```

```
              70      80      90
----- UU      UUCUCA G
              UUGUUUUUU UUC      AUC A
              AACAAAAAG AAGG      UAG A
UUUUACAAACCUUA -- ----- A
              120      110      100
```

Structure 3

Folding bases 1 to 180 of 04Aug11-17-14-42  
Initial dG = -65.6

```
      10      20      30      40      50
CAC A      A      U      U--- U      .-U UU
   AGC ACUAGAGAA GGAUCCAAAGGGGAUCGCA UGAUCC AA UAAGC GA \
   UCG UGGUUUCUU CUUAGGUUUCUCUAGCGU ACUAGG UU AUUCG CU U
CCU A      A      -      CCUU C      \ - UA
.      170      160      150      140      130      60
```

```
              70      80      90
CCCAAUAU| ----- UUUCUCA G
              UGUUU      UUUUUUUC      AUC A
              ACAA      AAAAGAAG      UAG A
UUUU-----^ CCUUAACA ----- A
              120      110      100
```

Structure 4

Folding bases 1 to 180 of 04Aug11-17-14-42  
Initial dG = -64.4

```
      10      20      30      40      50      60      70      80      90
CAC A      A      U      .-UAAUUUAGCUGAUUUUUAUCCCAAUAA UU      UUCUCA G
   AGC ACUAGAGAA GGAUCCAAAGGGGAUCGCA UGAUCC UUGUUUUUU UUC      AUC A
   UCG UGGUUUCUU CUUAGGUUUCUCUAGCGU ACUAGG AACAAAAAG AAGG      UAG A
CCU A      A      -      \ ----- A
.      170      160      150      140      110      100
```

```
              120
AUUC-----| C
              CAAA \
              GUUU A
CCUUUUCAUUC^ U
              130
```

Structure 5  
 Folding bases 1 to 180 of 04Aug11-17-14-42  
 Initial dG = -64.1

```

    10      20      30      40      50      60      70      80      90
CAC  A      A      U      U--- U      .-UGAUUUUUUCCCAUAAUUGUU      UUCUCA  G
   AGC ACUAGAGAA  GGAUCCAAAGGGAUCGCA  UGAUCC  AA  UAAGC      UUUUUUUUCC  AUC  A
   UCG UGUUUUCUU  CUUAGGUUUUCUCUAGCGU  ACUAGG  UU  AUUCG      AAAAAGAAGG  UAG  A
CCU  A      A      -      CCUU  C      \ -----
.      170      160      150      140      130      110      100

```

```

C|  UCC
   AAAU \
   UUUU  A
U^  CAA
     120

```

**AT2G39890**

Structure 1  
 Folding bases 1 to 153 of 04Aug11-17-16-46  
 Initial dG = -54.6

```

    10      20      30      40      50
CAU| A  UA      A      C  U      U-  .-A  U  A
   AGC AC  GAGGA  GGAUCCAAAGGGAU  GCAU  GAUCC  AAUUA  GG  GA  U
   UCG UG  UUCCU  CUUAGGUUUUCUCUA  CGUA  CUAGG  UUGGU  CC  CU  U
CCU^ A  GC      A      U      -      UU  \ -  C  C
   150      140      130      120      110      60

```

```

          70      80      90
AUAUUUUUCUUUUAUUUU      AAAUC
                        GGCAAAU \
                        UCGUUUA  A
-----
                        AAAAC
                              100

```

Structure 2  
 Folding bases 1 to 153 of 04Aug11-17-16-46  
 Initial dG = -54.1

```

    10      20      30      40      50      60      70
CAU  A  UA      A      C  U      UAAUUA  UG|  CUCCCCA--  U  UUA
   AGC AC  GAGGA  GGAUCCAAAGGGAU  GCA  UGAUCC  AGG  AAUU  UAUUU  CU  U
   UCG UG  UUCCU  CUUAGGUUUUCUCUA  CGU  ACUAGG  UUC  UUAA  AUAAA  GG  A
CCU  A  GC      A      U      -      UUUUGG  GU^  AAACACUAA  C  UUA
   150      140      130      120      110      100      90      80

```

Structure 3  
 Folding bases 1 to 153 of 04Aug11-17-16-46  
 Initial dG = -53.8

```

    10      20      30      40      50      60
CAU  A  UA      A      C  U      .-UAAU  |  U  UCUC
   AGC AC  GAGGA  GGAUCCAAAGGGAU  GCA  UGAUCC  UAAGG  GAAU  \
   UCG UG  UUCCU  CUUAGGUUUUCUCUA  CGU  ACUAGG  AUUC  UUUA  C
CCU  A  GC      A      U      -      \ ----  ^  U  UACC
   150      140      130      120      70

```

```

          80      90
UAAUU--      AAAUC
                GGCAAAU \
                UCGUUUA  A
UUUUGGU      AAAAC
   110      100

```

Structure 4  
 Folding bases 1 to 153 of 04Aug11-17-16-46  
 Initial dG = -53.4

```

    10      20      30      40      50      60      70
CAU  A  UA      A      C  U      U-  -----  |AUUCUCC-  U  UUC
   AGC AC  GAGGA  GGAUCCAAAGGGAU  GCA  UGAUCC  AAUUAAG  GUGA  CCA  AUU  U
   UCG UG  UUCCU  CUUAGGUUUUCUCUA  CGU  ACUAGG  UUGGUUC  CACU  GGU  UAA  U
CCU  A  GC      A      U      -      UU  GUUUAAAAA  ^AAAUAAAC  -  UAU
   150      140      130      120      110      100      90      80

```

# cand1

## AT5G58470

Structure 1  
Folding bases 1 to 96 of 04Aug11-18-05-03  
Initial dG = -46.0

```
      10      20
UAA|      G      .-U C
  AGCUCAGGA GGAUAGCGCCA GG U
  UUGAGUCCU CCUAUCGCGGU CC C
ACC^      A      \ - A
      90      80      30

                        40
A----- -      UUUG
          GUGC UGUAUGU \
          UAUG ACAUGCG U
UGUCUA  U      UUAU
      70      60
```

Structure 2  
Folding bases 1 to 96 of 04Aug11-18-05-03  
Initial dG = -45.5

```
      10      20
UAA      G      .-U C
  AGCUCAGGA GGAUAGCGCCA GG U
  UUGAGUCCU CCUAUCGCGGU CC C
ACC      A      \ - A
      90      80      30

                        40
A-----| U      UU
          GUGC GUAUGU \
          CAUG CGUAUA U
UGUCUAUAUGUA^ -      UG
      70      60      50
```

## AT2G38330

Structure 1  
Folding bases 1 to 77 of 04Aug11-18-05-42  
Initial dG = -39.4

```
      10      20      30
GUA|      G      ----- UC
  AAGCUCAGGA GGAUAGCGCCA UGAUGA A
  UUUGAGUCCU CCUAUCGCGGU AUUGCU C
UAC^      A      UUUUUUUCU UA
      70      60      50      40
```

Structure 2  
Folding bases 1 to 77 of 04Aug11-18-05-42  
Initial dG = -38.5

```
      10      20      30
GUA      G      U-- - C |A
  AAGCUCAGGA GGAUAGCGCCA GAU GAU AC U
  UUUGAGUCCU CCUAUCGCGGU UUA CUA UG U
UAC      A      UUU U U ^C
      70      60      50      40
```

## cand2

### AT1G20380

Structure 1  
Folding bases 1 to 145 of 04Aug11-18-10-21  
Initial dG = -60.8

```
      10      20      30      40      50      60      70
UUG |A  UU   U   - A   -   UUC GU   A-   AU-   A
   AC AAGA UUCU ACAG UC UCU UUGGCA U CCACCUCCUUCU UACAU AUGCAUGUGU U
   UG UUCU GGGG UGUC AG AGA AACCGU A GGUGGAGGAAGA GUGUG UGCGUAUAUA A
AAA ^C   UC   U   U   -   U   CAU UG   AA   CUU   U
      140      130      120      110      100      90      80
```

### AT1G76140

Structure 1  
Folding bases 1 to 165 of 04Aug11-18-10-46a  
Initial dG = -73.0

```
      10      20      30      40      50      60      70
UGC-|  G   A   U   U   GA   -   UUC   .-UCUC   GU
   GGGUUU ACAA GAG CUCU ACAGA UCU UUGGCA UGUCCACCUCCUC UAUUUUUU \
   CCCAAA UGUUU CUU GGGG UGUCU AGA AACCGU ACGGGUGGAGGAG AUGUGAAUA G
ACUC^  A   -   U   U   AG   U   CAU   \ ----   AU
      160      150      140      130      120      110      80
```

```
      90
CGUAUC   UG
         UACGG U
         AUGCU G
A----- UU
                   100
```

Structure 2  
Folding bases 1 to 165 of 04Aug11-18-10-46a  
Initial dG = -70.1

```
      10      20      30      40      50      60      70
UGC-  G A   U   U   GA   -   UUC   .-UCUCUAUUU | AU
   GGGUUU AC AAAGAG CUCU ACAGA UCU UUGGCA UGUCCACCUCCUC UAUGUGUA \
   CCCAAA UG UUUCUU GGGG UGUCU AGA AACCGU ACGGGUGGAGGAG AUGCAUGU A
ACUC  A   -   U   U   AG   U   CAU   \ ----- ^ GA
      160      150      140      130      120      110      80
```

```
      90
UC      UG
         UACGG U
         AUGCU G
A-      UU
                   100
```

### cand3

#### AT5G14550

Structure 1  
Folding bases 1 to 118 of 04Aug11-18-14-41  
Initial dG = -52.8

```
      10      20      30      40      50
AAA| G  A      G  CC      --  A  GA      ACA      U
      GA CUC GCAGGG UGA  UGAGAACAUGA  AA CGA GCUGUA  AUGACG \
      CU GAG UGUCCC ACU ACUCUUGUGUGCU  UU GUU  CGACAU  UACUGC A
CAC^ A  C      A  AU      CA  A  GC      ---      G
      110     100     90     80     70
```

#### AT2G03450

Structure 1  
Folding bases 1 to 99 of 04Aug11-18-15-12  
Initial dG = -36.4

```
      10      20      30      40
AGA|      ACC  A      AAAC  A      ----  G
      UUCAAAGGGGUG  UG  GAACACA  UC AUGGUUUC  AAU G
      AAGUUUCCUCAC  AC CUUGUGU  GG UACCAAAG  UUA A
UUA^      CGU  A      AUA-  A      AAGU  A
      90     80     70     60     50
```

#### AT5G14570

Structure 1  
Folding bases 1 to 117 of 04Aug11-18-15-39  
Initial dG = -51.4

```
      10      20      30      40      50
AAA| G  A      G  CC      AA---  GA      AAU      U
      GA CUC GCAGGG UGA  UGAGAACAUGA      CGA GCUGUAAC  GACG \
      CU GAG UGUCCC ACU ACUCUUGUGUGCU  GUU  CGAUUUG  CUGC A
CAC^ A  C      A  AU      CGUUA  GC      ---      G
      110     100     90     80     70     60
```