

Supplemental Figure 1

A. Predicted fold-back structures for miRNAs in Table 1

MiR171b (ΔG -54.1)

```
UA A      UG      -      UAC      UG
AAA CG GAUAUUGG CGGUUCAUCAGA AAACCG UCUUU U
UUU GC CUAUAACC GCCGAGUUAGUUU UUUGGC AGAAA U
GC A      GU      A      U--      UU
```

MiR171c (ΔG -48.4)

```
UUUUUAUGCAA AA-- A      A UG      A      --      C      UAA
GGU      CGCG GAUAUU G      CGGUUCAUC AAUAG UCGU CUCU C
CCA      GCGC CUAUAA C      GCCGAGUUAG UUGUU GGCA GAGG U
CGGUAAAAA- AAUG A      C GU      C      GU      A      UAC
```

MiR319c (ΔG -87.7)

```
UAU      A      U      GAAA      A GG      G      AC      C      UC      AA      C      AG      AACG
UAGA      AGAAGGAG UUCUUUCAGUCCAG CAUGGAUA      AAGAAG G      UAGAAUAUCU CCG UCAU CA CA CACU GUGGU AGA \
AUCU      UCUUCCUC AGGGAAGUCAGGU      GUGUCUAU      UUCUUC C      GUUUUUUAUGA GGC AGUA GU GU GUGA CGCCA UUU A
UUU      G      U      ----      - UA      G      GU      A      GU      CA      -      AA      AAAU
```

MiR389b.3 (ΔG -25.9)

```
CA-      -      -      U      CGAUA      U      AA
UCCUAAG UCCAA CA AGCGUU      AGA CUUAGAA \
AGGAUUC AGGUU GU UUGCGA      UCU GAAUUUU U
UAA      U      A      -      UACAA      -      AU
```

MiR390a.2 (ΔG -53.0)

```
UCACAACCCAAAAAACAAA      --      AU U      A      G      -----      UC
GUAG      AGAAGA      C      GU      AAGCUCAGGA      GGUAAGCGCCA      UGAUGA      A
CAUC      UCUUCU      G      UA      UUUGAGUCCU      CCUAUCGCGGU      AUUGCUC      C
AAAGUAA-----      AU      CG U      C      A      UUUUUUAUCU      UA
```

MiR393a (ΔG -52.9)

```
CAU      A      UA      A      C      U      U-      .-A      U      A
AGC      AC      GAGGA      GGAUCCAAAGGGAU      GCAU      GAUC      AAUUA      GG      GA      U
UCG      UG      UUCCU      CUUAGGUUUUCUCA      CGUA      CUAGG      UUUGU      CC      CU      U
CU-      A      GC      A      U      -      UU      \      -      C      C
```

MiR393b ($\Delta G -63.2$)

CAC A A U U--- U .-U UU
AGC ACUAGAGAA GGAUCCAAAGGGAUCGCAU GAUCC AA UAAGC GA \
UCG UGGUUUCUU CUUAGGUUUCUCUAGCGUA CUAGG UU AUUCG CU U
--- A A - CCUU C \ - UA

MiR397a ($\Delta G -39.9$)

UUU-- U C A U G UUU G
UUCCUGGG GAA GAACAU AUUGAGUGCAGCGUUG UGUAA UUC UUUUG UUCAUU U
AAGGACUU CUU UUUGUA UAACUCGCGUUGCGAC AUAUU AAG AAAAU AGGUAA U
UUAUU - U C U - U-- G

MiR397b ($\Delta G -34.1$)

U C U AUUU A UUCC UU
GAACAU AUUGAGUGCA CGUUGAUGUA UACUU UUUUA AUUG G
UUUGUA UAACUUACGU GCGACUAUUA AUGAA GAAAU UAAU A
- U U ---- - ---- UA

MiR398a ($\Delta G -58.0$)

AAAGUAUGGAGAAGAA AC- A U AAU A A U UA-- CU UUCAAA
GAGAAGA AACAGG GG GA UUCAAGG GUGGC UG GAACACA UC AUGGUUUC U
CUUUUUU UUGUCC CC CU AAGUUUCC CACUG AC CUUGUGU AG UACCAAAG U
CA----- ACC - U --- C G U UUUG U- UUACCU

MiR398b ($\Delta G -51.4$)

A U--- U A U A C U CAAC --- C
GA GGUAG GGA CUCG CAGGG UGAU UGAGAACACA GAG AAU GGCUGUA AUGACG \
CU CCAUC UCU GAGU GUCCC ACUG ACUCUUGUGU CUU UUG UCGACAU UACUGC U
G UCUU C C G A - CUC- UGU A

MiR398c ($\Delta G -58.2$)

AUA UAU UUAU U--- U A U A ----- CAAUCAAC A --- C
GAUAAA UG GGUAG GGA CUCG CAGGG UGAU UGAGAACAC ACGAG GGCU UAAC GACG \
CUAUUU AC CCAUC UCU GAGU GUCCC ACUG ACUCUUGUG UGCUC UCGA AUUG CUGC U
A-- UGU CUG- UCUU C C C G UACUU ----- C UUA A

MiR399b ($\Delta G -60.6$)

A C- C A C .-CUUCCAA CAC
UAA CU ACUAGUUUUAGGGCG CUCUCC UUGGCAGGUC UUUU AUAUA A
AUU GA UGGUCAAAAGUCCCGU GAGAGG AACCGUCCAG AAAU UUAU U
C CU U A U \ ----- ACA

MiR399c ($\Delta G -67.4$)

- A U A C U UUU AUCUUUU
UAAGCGGA GCAGU AUAGGGCA CUUUCU UUGGCAGG GAC UGGCUA GU G
AUUCGCCU CGUCA UGUCCCGU GAGAGG AACCGUUC CUG AUCGGU CA U
U C U A A U UAU GUUCUUG

MiR399f ($\Delta G -49.1$)

AU A A A A U - UU- CU C
UAC GGGCA GAUC CC UUGGCAGAGA CU AUUAC CAUU UGCAU \
AUG CCCGU UUAG GG AACCGUCUCU GA UGGUG GUAA ACGUA A
A- G - A A C G UUU AU U

MiR400 ($\Delta G -34.4$)

G ACA GU A
UUAUGAGA UAUAUAAGUCACU UUUG AAGCAA G
AGUACUCU AUAGUAUUCAGUGA AAC UUUGUU U
A AGC UC G

MiR401 ($\Delta G -79.3$)

U CAA U A C C C- CUUCUGA U A UUUAG UUGCUG- C AAC C CAA
GGGAC AAUAAG AUA GGA AU UU UGGGGCAAA UUGAG AAACU GA AGCG GGUUU GGC GA GGUGUCGA CGACAC \
CCUG UUGUUAC UAU CCU UG AA ACCUCGUUU GAUUC UUUGA UU UUGC CCAAG UCG CU UCACAGCU GCUGUG G
- CUC U C U A UU CUUUUCC - C UAAAA UCCUUAG - AC-- C UGA

MiR402 ($\Delta G -95.5$)

UUAAG G U U CCUUU UUAACCCAUUUUUUC C U ACAUCU - AAGUU UUUU GAAA- UG A-- --- C A --- UU
UGGUAGA UUU AGU GCAUAGUGGCAG CUU GUUUG AUGAUUCGAGG CUAU AAACCCUCUUU GCU UUUUGAA GUCA UCU UCUUCU CCUCA UUUC CAA AGC GAU UCAUCU C
ACUAUUU AAA UCA CGUAUCAUCUC GAG CAAAC UACUAAGCUCU GAUA UUUUGGGAUAA CGA AAAGCUU CAGU AGA AGAAGG GGAGU AAAG GUU UUG UUG AGUAGG A
CA-- G U U ----- UA----- A - AAUUUC U ----- C--- AUUAA GU AAA AUU U A CCU UU

MiR403 ($\Delta G -36.7$)

AUUA U U AU U U .-G UU
GAAGAG CG AUUAC GUUU GUGC UGAAUCUAAUUCACAA GC \
CUUUUC GU UAAUG CAAA CACG ACUUAGAUUAGGUUGU UG U
---- U C CU - C \ - UA

MiR404 ($\Delta G -86.7$)

U UUU UUAAC G GUG A CU C- G
CG CA GCU GCGGUUGCGGCAGCGGCUGCGGUAGCG GCGGCAA CA AC GCAG U
GC GU UGG CGCCAACGCCGUCGCCGACGCCGUCGC CGCCGUU GU UG UGUU U
U UU- UUCUU A AGA - UU CU G

MiR405a ($\Delta G -79.3$)

```
UCA      G      ACC--  C      UAA      GUUUUUGAUUA      -      U
  AAAUGG UAACCCA      CAAC CAACUCA      UCAAAUGA      AAUGAGUUUUGGGUU GACCCAACUCAUUU G
  UUUACC AUUGGGU      GUUG GUUGGGU      AGUUUACU      UUACUCAAUACCCAA CUGGGUUGAGUAAA U
  ---      A      AAAUU      A      ---      -----      U      U
```

MiR405b ($\Delta G -51.3$)

```
AUCAA      ---      -      U
  AUGA      AAUGAGUUUUGGGUU GACCCAACUCAUUU G
  UACU      UUACUCAAUACCCAA CUGGGUUGAGUAAA U
  -----      AAU      U      U
```

MiR405c ($\Delta G -68.0$)

```
ACCC      -----      A
  AUCAAAUGA      AAUGAGUUUUGGGUUAGACCCAACUCAUUU A
  UAGUUUACU      UUACUCAAUACCCAAUCUGGGUUGAGUAAA C
  ----      CAAUAUUAAU
```

MiR405d ($\Delta G -48.2$)

```
UU      U
  AAAUGAGUUUUGGGUUAGACCCAACUCAUUU G
  UUUACUCAAUACCCAAUCUGGGUUGAGUAAA U
  --      U
```

MiR406 ($\Delta G -29.8$)

```
UAA      UCA      AGCACAUUCAAU      --      A      C      A      A      UUAAA      -      GAG---      AC      AA
  UUUUUAGUUA      CGAUUU      CUAU      AGAUUUG      UUUUU      UUUU      UU      GUUC      UUUUG      AUUU      ACAGUA      UAUUC      \
  AAAAAUCAAU      GCUAAA      GAUA      UCUGAGC      AAAAA      AAAA      AA      UAAG      AAAGC      UAAG      UGUUAU      GUAAG      A
  ---      UA-      AAU-----      CU      A      A      A      C      CAAAG      C      ACCUAA      C-      AU
```

MiR407a ($\Delta G -139.0$)

```
A-----      C      U      CAA      A      A      C      CC      A      A      C      AA
  UGGAAAAAUGUUAAAAAAU      GCCAACUUU      AAAAAUGGGA      AAAAAUCGCCAACUCCUGAAAUGUC      UUU      AAUCAUAUACUUUUGGUUGA      UUUU      AGAAAGAUAAUA      AGCAAAG      UU      GU      \
  ACCUUUUUUACAGUUUUUUUA      CGGUUGAAA      UUUUUACCCU      UUUUUAGUGGUUGAGGACUUUACAG      AAA      UUAGUGUAUGAAAACUAACU      AAGA      UCUUUUAUUUGU      UCGUUUC      AA      CA      U
  GUUAUUUAGUA      A      C      AC-      C      A      C      AA      C      A      A      AC
```

MiR408 ($\Delta G -78.3$)

```
A      UU-      GAAGAC--      G      --      ---      -----      CAA      A      AUU      UUU      U      UUAAA
  UUGGUA      GCAAUGAAA      AAAGC      GU      AAUGA      GAGAGAGA      CAGGGAA      GCAG      GCAUGG      GAG      AC      AAAACA      \
  AAUCGU      CGUUUUUUU      UUUCG      CA      UUACU      CUCUCUCU      GUCCCUU      CGUC      CGUACC      CUC      UG      UUUUGU      C
  C      CAU      AAGGUAAC      A      CU      UUC      CUUUUAUUCUCUUUUUUUCUCCUCG      CUC      A      CAU      ---      -      CUCAG
```