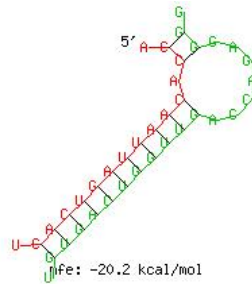


Figure S1: RNAhybrid mRNA/miRNA alignments

Bcap29

Bcap29: SPRET with miRNA-134

position 431
target 5' A A U 3'
 CC CAAUUAGUCAC
 GG GUUGGUCAGUG
miRNA 3' G GAGACCA U 5'

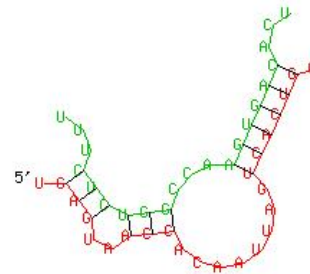


mfe: -20.2 kcal/mol

Bcap29: NIH with miRNA-134 No Predicted Alignment

Bcap29: SPRET with miR-128

position 425
target 5' U UA ACAUUAG C 3'
 GAG ACC UCACUG
 CUC UGG AGUGAC
miRNA 3' UUU CCA ACU 5'



mfe: -16.5 kcal/mol

mfe: -16.5 kcal/mol

Bcap29: NIH with miR-128- no predicted alignment

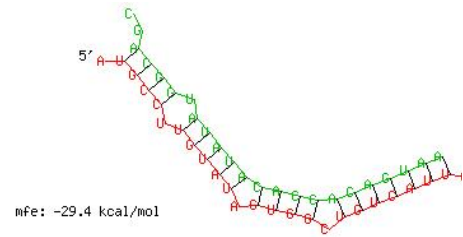
Dgkb

Dgkb SPRET with *miR-489*

position 96

```
target 5' A U A C G 3'
          UGCC UGUAU GUGG UGUCAUU
          ACGG AUAUA CACC ACAGUAA
miRNA 3' CG U
```

mfe: -29.4 kcal/mol

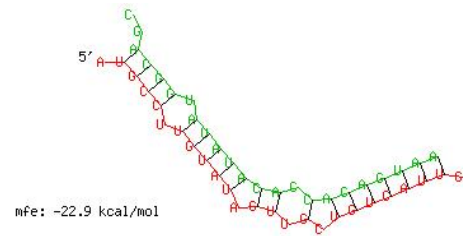


Dgkb NIH with *miR-489*

position 96

```
target 5' A U A U C G 3'
          UGCC UGUAU GU G UGUCAUU
          ACGG AUAUA CA C ACAGUAA
miRNA 3' CG U C 5'
```

mfe: -22.9 kcal/mol

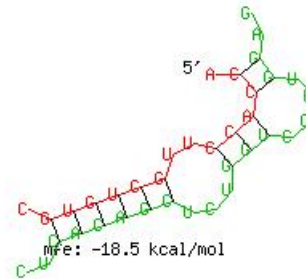


Etv1

Etv1 SPRET with *miR-673-5p*

position 43

```
target 5' A          UU          C 3'
          CC    ACC  GCUGUG
          GG    UGG  CGACAC
miRNA 3' GA  UUCC  UCU          UC 5'
mfe: -18.5 kcal/mol
```

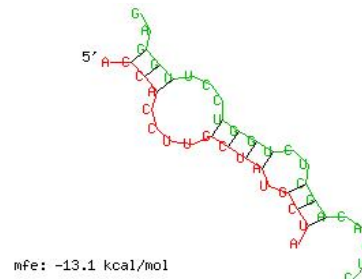


Etv1 NIH with *miR-673-5p*

position 43

```
target 5' A  CCUU  U  A  3'
          CCA  GCUA  GCU
          GGU  UGGU  CGA
miRNA 3' GA  UCC  CU  CACUC 5'
```

mfe: -13.1 kcal/mol

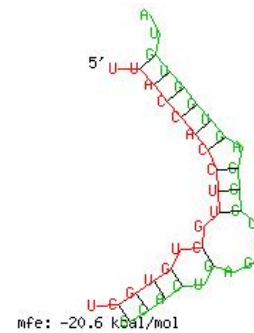


Etv1 SPRET with *miR-674*

position 41

```
target 5' U          G  U  U 3'
          UACCAC CUU  C  GUGC
          GUGGUG GGG  G  CACG
miRNA 3' AU          A  UAGA U  5'
```

mfe: -20.6 kcal/mol

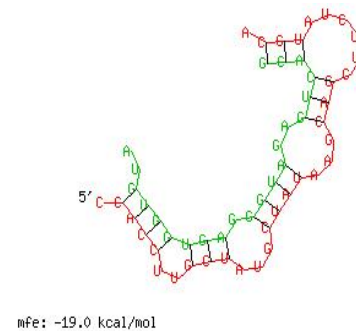


Etv1 NIH with *miR-674*

position 44

```
target 5' C  UU  AUG  AAG  CUUCUA  A 3'
          CACC  GCU  CUAU  CAG  UGC
          GUGG  UGA  GGUA  GUC  ACG
miRNA 3' AU          G  GA          5'
```

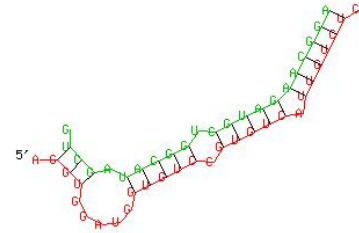
mfe: -19.0 kcal/mol



Hbp1

Hbp1 SPRET with miR-31

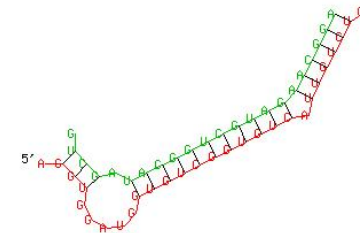
position 517
target 5' A GGAUG C A C 3'
GGU GUGUC GUGUC UUGUCU
UCG UACGG CGUAG AACGGA
miRNA 3' G A U 5'
mfe: -23.7 kcal/mol



mfe: -23.7 kcal/mol

Hbp1 NIH with miR-31

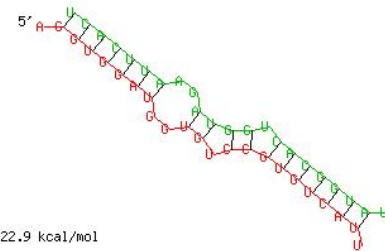
position 517
target 5' A GGAUG A C 3'
GGU GUGUCGUGUC UUGUCU
UCG UACGGUCGUAG AACGGA
miRNA 3' G A
mfe: -27.7 kcal/mol



mfe: -27.7 kcal/mol

Hbp1 SPRET with miR-183

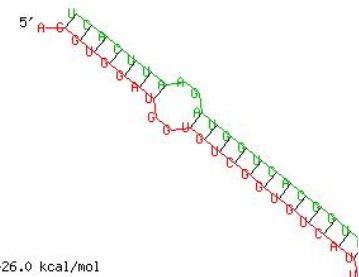
position 517
target 5' A GG U U 3'
GGUGGAU UG CC GUGUCAU
UCACUUA AU GG CACGGUA
miRNA 3' AG U U 5'
mfe: -22.9 kcal/mol



mfe: -22.9 kcal/mol

Hbp1 NIH with miR-183

position 517
target 5' A GG U 3'
GGUGGAU UGUCGUGUCAU
UCACUUA AUGGUCACGGUA
miRNA 3' AG U 5'
mfe: -26.0 kcal/mol



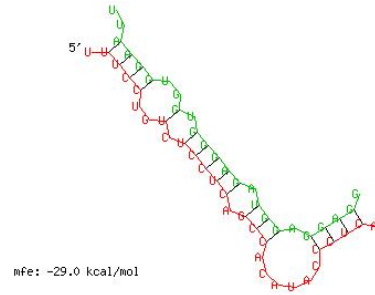
mfe: -26.0 kcal/mol

Hbp1 SPRET with *miR-5110*

position 718

```
target 5' U   UG C   A   ACAUAC   A 3'
          UUCC  U UCCUC GCC   CCUC
          AAGG  G GGGAG UGG   GGAG
miRNA 3' UU   UG U   A   A   G 5'
```

mfe: -29.0 kcal/mol

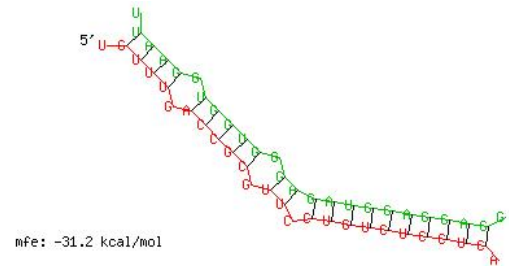


Hbp1 NIH with *miR-5110*

position 714

```
target 5' U   G   G   C   A 3'
          GUUU ACCGC UU CUGUCUCCUC
          UAAG UGGUG GA GAUGGAGGAG
miRNA 3' U   G   G   G 5'
```

mfe: -31.2 kcal/mol



Hbp1 SPRET with *miR-873* -no predicted alignments

Hbp1 NIH with *miR-873*

position 718

```
target 5'   U   C 3'
          GAC CGC GUUCCUGU
          CUG GUG CAAGGACG
miRNA 3' UCCU A UU   5'
mfe: -22.0 kcal/mol
```

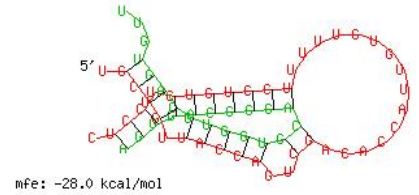


Hbp1 SPRET with *miR-92b*

position 690

```
target 5'   U   U   GU ACACCAUUGUGUUUU   U   C 3'
          GCUG UACCA  CG                UCCUGUC CCU
          UGAC GUGGU  GC                AGGGCAG  GGA
miRNA  3' UUG
```

mfe: -28.0 kcal/mol

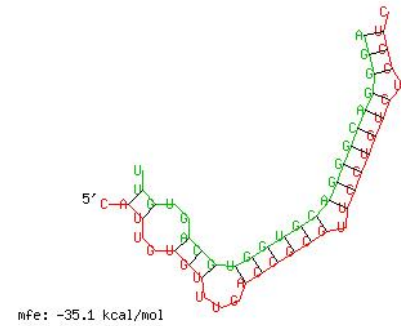


Hbp1 NIH with *miR-92b*

position 709

```
target 5' C  UG  UUG   U   U   C 3'
          AU  UGU  ACCGCG  UCCUGUC  CCU
          UG  ACG  UGGUGC  AGGGCAG  GGA
miRNA  3' U  UG
```

mfe: -35.1 kcal/mol

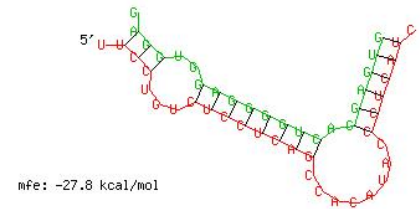


Hbp1 SPRET with *miR-1224*

position 719

```
target 5' U   UGU           CCACAUAC   C 3'
          UCC  CUCCUCAG         CCUCAU
          AGG  GAGGGGUC         GGAGUG
miRNA  3' G  UG           A           5'
```

mfe: -27.8 kcal/mol

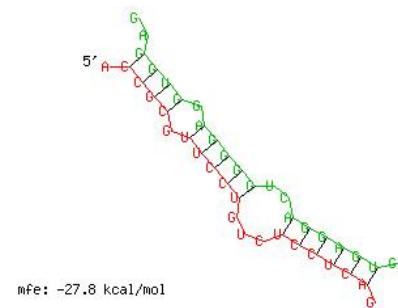


Hbp1 NIH with *miR-1224*

position 720

```
target 5' A   G   GUC   G 3'
          CCGC UUCCU  UCCUCA
          GGUG AGGGG  AGGAGU
miRNA  3' GA  G   UC   G 5'
```

mfe: -27.8 kcal/mol



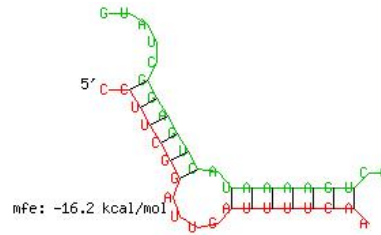
Ifrd1

Ifrd1 SPRET with *miR-875-3p*

position 181

```
target 5'      C      AUUG      A 3'
              CUUCGG  AUUUUCA
              GGAGUC  UAAAAGU
miRNA  3' GUAUC      A      CC 5'
```

mfe: -16.2 kcal/mol



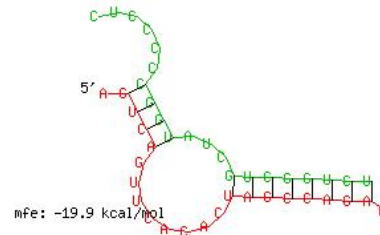
Ifrd1 NIH with *miR-875-3p*-no predicted binding

Ifrd1 SPRET with *miR-3085-3p*

position 199

```
target 5'      A      GUUCACAC      G 3'
              GUCA      UAGCCAGA
              CGGU      GUCGGUCU
miRNA  3' CUCCCC      AUC      5'
```

mfe: -19.9 kcal/mol

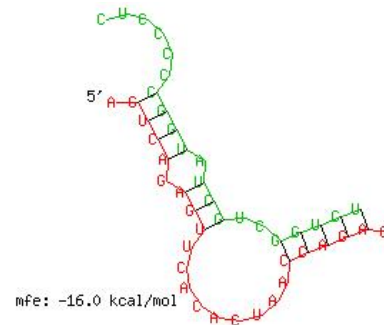


Ifrd1 NIH with *miR-3085-3p*

position 200

```
target 5'      A      G      UCACACUAA      G 3'
              GUCA AGU      CCAGA
              CGGU UCG      GGUCU
miRNA  3' CUCCCC      A      UC      5'
```

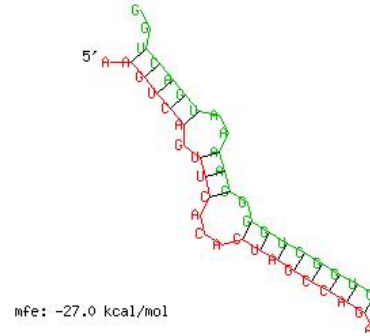
mfe: -16.0 kcal/mol



Ifrd1 SPRET with *miR-664**

position 198

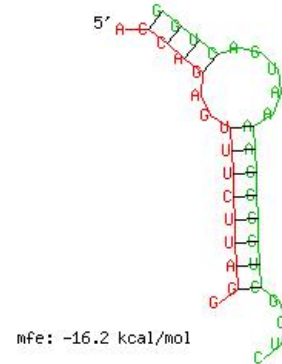
```
target 5' A G ACA A 3'
          AGUCA UUC CUAGCCAG
          UCAGU AAG GGUCGGUC
miRNA 3' GG AA G 5'
mfe: -27.0 kcal/mol
```



Ifrd1 NIH with *miR-664**

position 217

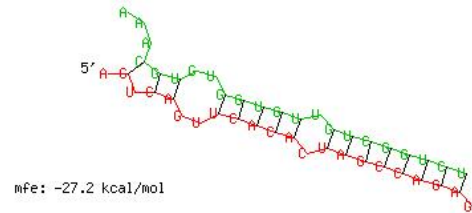
```
target 5' A AG G 3'
          CCAG UUUCUUAG
          GGUC AAGGGGUC
miRNA 3' AGUAA GGUC 5'
mfe: -16.2 kcal/mol
```



Ifrd1 SPRET with *miR-3064-5p*

position 199

```
target 5' A U GU C G 3'
          G CA UCACA UAGCCAGA
          C GU GGUGU GUCGGUCU
miRNA 3' AAA GU U 5'
```

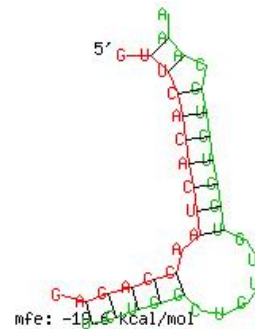


mfe: -27.2 kcal/mol

Ifrd1 NIH with *miR-3064-5p*

position 207

```
target 5' G A G 3'
          UU CACACUA CCAGA
          AA GUGUGGU GGUCU
miRNA 3' A C GUUGUC 5'
```



mfe: -19.6 kcal/mol

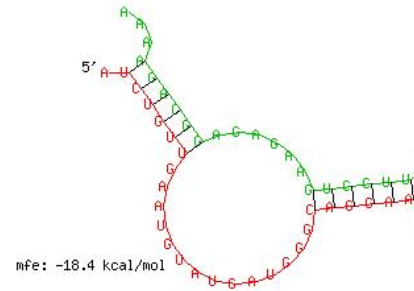
Twistnb

Twistnb SPRET with *miR-691*

position 323

```
target 5'   A       GAAUGUAUGAUGGG   A 3'
           UCUGUU       CAGGAA
           AGACGG       GUCCUU
miRNA  3' AAA       AGAGAA       A 5'
```

mfe: -18.4 kcal/mol



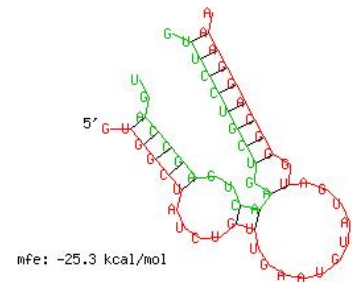
Twistnb NIH with *miR-691* no predicted binding

Twistnb SPRET with *miR-3074-5p*

position 317

```
target 5'   G       AUCU  UGAAUGUAUGA  G       A 3'
           UGGCU       GU           U  GGCAGGAA
           ACCGA       CA           A  UCGUCCUU
miRNA  3'  UG       GU           G           G 5'
```

mfe: -25.3 kcal/mol

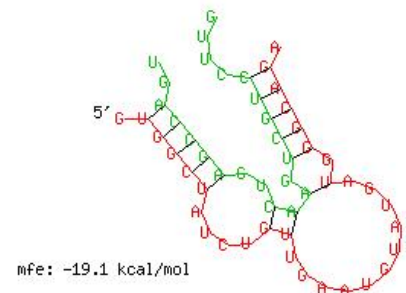


Twistnb NIH with *miR-3074-5p*

position 317

```
target 5'   G       AUCU  UGAAUGUAUGA  G       A 3'
           UGGCU       GU           U  GGCAG
           ACCGA       CA           A  UCGUC
miRNA  3'  UG       GU           G           CUUG 5'
```

mfe: -19.1 kcal/mol

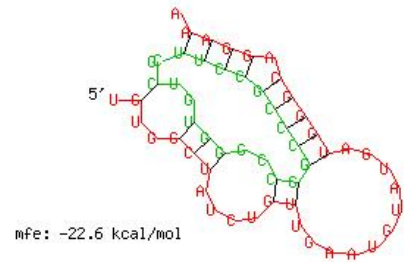


Twistnb SPRET with miR-718

position 316

```
target 5' U UG   AUCU  UGAAUGUAUGA   A   A 3'
          G  GCU   GU           UGGGC  GAA
          C  UGG   CG           GCCCG  CCUU
miRNA  3' G  UG   GC                               C 5'
```

mfe: -22.6 kcal/mol



Twistnb NIH with miR-718

position 316

```
target 5' U UG   AUCU  UGAAUGUAUGA   A   A 3'
          G  GCU   GU           UGGGC  GAA
          C  UGG   CG           GCCCG  CUU
miRNA  3' G  UG   GC                               C  C 5'
```

mfe: -21.1 kcal/mol

