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================================================================
miranda v3.3a    microRNA Target Scanning Algorithm
================================================================
(c) 2003 Memorial Sloan-Kettering Cancer Center, New York

Authors: Anton Enright, Bino John, Chris Sander and Debora Marks
(mirnatargets (at) cbio.mskcc.org - reaches all authors)

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Enright AJ, John B, Gaul U, Tuschl T, Sander C and Marks DS;
(2003) Genome Biology; 5(1):R1.

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Current Settings:
=============================================================
Query Filename:  ./seq/mirna/sof_mirna.fasta
Reference Filename:    ./seq/gene/sof/KY548506.fasta
Gap Open Penalty:-9.000000
Gap Extend Penalty:    -4.000000
Score Threshold: 130.000000
Energy Threshold:-15.000000 kcal/mol
Scaling Parameter:     4.000000
=============================================================
Read Sequence:sof-miR156 (20 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=============================================================
Performing Scan: sof-miR156 vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=============================================================
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:sof-miR159a (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=============================================================
Performing Scan: sof-miR159a vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=============================================================
Score for this Scan:
No Hits Found above Threshold
```

Complete

Read Sequence:sof-miR159b (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: sof-miR159b vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:sof-miR159c (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: sof-miR159c vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:sof-miR159d (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: sof-miR159d vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:sof-miR159e (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: sof-miR159e vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:sof-miR167a (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)

```
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: sof-miR167a vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:sof-miR167b (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: sof-miR167b vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:sof-miR168a (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: sof-miR168a vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

   Forward: Score: 146.000000  Q:2 to 20  R:547 to 568 Align Len (19)
(68.42%) (84.21%)

   Query:    3' caGGGCUAG-ACGUGGUUCGCu 5'
                |:|| |: | ||:||||||
   Ref:       5' aaCTCGCTTGTCCATCAAGCGa 3'

   Energy:  -23.510000 kCal/Mol

Scores for this hit:
>sof-miR168a
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     146.00      -23.51      2 20  547 568     19     68.42%       84.21%

   Forward: Score: 140.000000  Q:2 to 19  R:2562 to 2581 Align Len (17)
(64.71%) (88.24%)

   Query:    3' cagGGCUAGACGUGGUUCGCu 5'
                 ::||||| | :|:|||||
   Ref:       5' atgTTGATCCG-GCTAAGCGt 3'

   Energy:  -19.139999 kCal/Mol

Scores for this hit:
```

```
>sof-miR168a
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     140.00      -19.14     2 19  2562 2581  17    64.71%      88.24%

   Forward: Score: 132.000000  Q:3 to 17  R:1827 to 1845 Align Len (14)
(85.71%) (85.71%)

   Query:    3' cagggCUAGACGUGGUUCGcu 5'
                 ||||| | ||||||
   Ref:       5' tagtgGATCT-C-CCAAGCac 3'

   Energy:  -15.610000 kCal/Mol

Scores for this hit:
>sof-miR168a
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     132.00      -15.61     3 17  1827 1845  14    85.71%      85.71%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>sof-miR168a
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     418.00      -58.26     146.00      -23.51      9     21     9575    547
2562 1827
Complete

Read Sequence:sof-miR168b (20 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: sof-miR168b vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

   Forward: Score: 145.000000  Q:2 to 18  R:2562 to 2581 Align Len (16)
(68.75%) (87.50%)

   Query:    3' cagGGCUAGACGGGUUCGCu 5'
                 ::||||| | |:|||||
   Ref:       5' atgTTGATCCGGCTAAGCGt 3'

   Energy:  -20.400000 kCal/Mol

Scores for this hit:
>sof-miR168b
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     145.00      -20.40     2 18  2562 2581  16    68.75%      87.50%

   Forward: Score: 141.000000  Q:3 to 16  R:1827 to 1845 Align Len (13)
(92.31%) (92.31%)
```

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    Query:    3' cagggCUAGACGGGUUCGcu 5'
                   ||||| |||||||
    Ref:      5' tagtgGATCT-CCCAAGCac 3'

    Energy:  -19.320000 kCal/Mol

Scores for this hit:
>sof-miR168b
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     141.00      -19.32      3 16 1827 1845  13    92.31%      92.31%

    Forward: Score: 132.000000  Q:2 to 19  R:547 to 568 Align Len (19)
(63.16%) (78.95%)

    Query:    3' caGGGCUAG-ACG-GGUUCGCu 5'
                  |:|| |: | | :||||||
    Ref:      5' aaCTCGCTTGTCCATCAAGCGa 3'

    Energy:  -22.570000 kCal/Mol

Scores for this hit:
>sof-miR168b
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     132.00      -22.57      2 19  547 568    19    63.16%      78.95%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>sof-miR168b
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     418.00      -62.29      145.00     -22.57      10    20    9575
2562 1827 547
Complete

Read Sequence:sof-miR396 (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
Performing Scan: sof-miR396 vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-

    Forward: Score: 142.000000  Q:2 to 16  R:3634 to 3655 Align Len (15)
(73.33%) (93.33%)

    Query:    3' gucaagUUCUUUC-GACACCUu 5'
                      ::||||| :||||||
    Ref:      5' gctcggGGGAAAGTTTGTGGAa 3'

    Energy:  -20.270000 kCal/Mol
```

Scores for this hit:
>sof-miR396 KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      142.00   -20.27   2 16 3634 3655   15   73.33%   93.33%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>sof-miR396
      KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      142.00   -20.27   142.00   -20.27   11   21   9575
3634
Complete

Read Sequence:sof-miR408a (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: sof-miR408a vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=

   Forward: Score: 130.000000 Q:2 to 20 R:139 to 161 Align Len (20)
(75.00%) (80.00%)

   Query: 3' cgGUCCCUUCU-CCGU-CACGUc 5'
                 | || :||| |||| |||||
   Ref: 5' ttCCGGCGAGATGGCAGGTGCAt 3'

   Energy: -23.270000 kCal/Mol

Scores for this hit:
>sof-miR408a
      KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      130.00   -23.27   2 20 139 161   20   75.00%   80.00%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>sof-miR408a
      KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      130.00   -23.27   130.00   -23.27   12   21   9575   139
Complete

Read Sequence:sof-miR408b (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: sof-miR408b vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=

```
   Forward: Score: 130.000000  Q:2 to 20  R:139 to 161 Align Len (20)
(75.00%) (80.00%)

   Query:    3' cgGUCCCUUCU-CCGU-CACGUc 5'
                 | || :||| |||| |||||
   Ref:       5' ttCCGGCGAGATGGCAGGTGCAt 3'

   Energy:  -23.270000 kCal/Mol

Scores for this hit:
>sof-miR408b
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     130.00      -23.27      2 20  139 161      20    75.00%      80.00%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>sof-miR408b
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     130.00      -23.27      130.00      -23.27      13    21    9575   139
Complete

Read Sequence:sof-miR408c (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: sof-miR408c vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

   Forward: Score: 130.000000  Q:2 to 20  R:139 to 161 Align Len (20)
(75.00%) (80.00%)

   Query:    3' cgGUCCCUUCU-CCGU-CACGUc 5'
                 | || :||| |||| |||||
   Ref:       5' ttCCGGCGAGATGGCAGGTGCAt 3'

   Energy:  -23.270000 kCal/Mol

Scores for this hit:
>sof-miR408c
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     130.00      -23.27      2 20  139 161      20    75.00%      80.00%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>sof-miR408c
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     130.00      -23.27      130.00      -23.27      14    21    9575   139
Complete

Read Sequence:sof-miR408d (21 nt)
```

```
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: sof-miR408d vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

   Forward: Score: 130.000000  Q:2 to 20  R:139 to 161 Align Len (20)
(75.00%) (80.00%)

    Query:    3' cgGUCCCUUCU-CCGU-CACGUc 5'
                 | || :||| |||| |||||
    Ref:      5' ttCCGGCGAGATGGCAGGTGCAt 3'

    Energy:  -23.270000 kCal/Mol

Scores for this hit:
>sof-miR408d
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     130.00      -23.27      2 20  139 161     20    75.00%      80.00%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>sof-miR408d
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     130.00      -23.27      130.00      -23.27      15    21    9575    139
Complete

Read Sequence:sof-miR408e (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: sof-miR408e vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:ssp-miR166 (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: ssp-miR166 vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

   Forward: Score: 146.000000  Q:2 to 20  R:4178 to 4199 Align Len (19)
(68.42%) (84.21%)
```

```
    Query:     3' ccCCUU-ACUUCGGACCAGGCu 5'
                  |||| | ::| |||||:||
    Ref:       5' atGGAACTTGGGACTGGTTCGa 3'

    Energy:  -22.320000 kCal/Mol

Scores for this hit:
>ssp-miR166 KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      146.00      -22.32      2 20  4178 4199  19    68.42%      84.21%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>ssp-miR166
      KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      146.00      -22.32      146.00      -22.32      17    21    9575
4178
Complete

Read Sequence:ssp-miR169 (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: ssp-miR169 vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

   Forward: Score: 133.000000  Q:2 to 16  R:7798 to 7817 Align Len (14)
(71.43%) (85.71%)

    Query:     3' ggccguUCAGUAGGAACCGAu 5'
                     :|| || :||||||
    Ref:       5' actaatGGTAAT-TTTGGCTt 3'

    Energy:  -15.520000 kCal/Mol

Scores for this hit:
>ssp-miR169 KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      133.00      -15.52      2 16  7798 7817  14    71.43%      85.71%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>ssp-miR169
      KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      133.00      -15.52      133.00      -15.52      18    21    9575
7798
Complete

Read Sequence:ssp-miR437a (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
```

```
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: ssp-miR437a vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:ssp-miR437b (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: ssp-miR437b vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:ssp-miR437c (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: ssp-miR437c vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:ssp-miR528 (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: ssp-miR528 vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

   Forward: Score: 146.000000  Q:2 to 19  R:6376 to 6393 Align Len (17)
(70.59%) (76.47%)

   Query:    3' gagGAGACGUACGGGGAAGGu 5'
                ||:| ||   |||||||
   Ref:      5' ggaCTTTCCA---CCCTTCCc 3'

   Energy:  -15.820000 kCal/Mol

Scores for this hit:
>ssp-miR528 KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      146.00      -15.82      2 19  6376 6393  17    70.59%      76.47%
```

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>ssp-miR528
      KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      146.00   -15.82   146.00   -15.82   22   21   9575
6376
Complete

Read Sequence:ssp-miR827 (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: ssp-miR827 vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:ssp-miR444a (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: ssp-miR444a vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=

   Forward: Score: 132.000000 Q:2 to 13 R:8501 to 8521 Align Len (11)
(72.73%) (90.91%)

   Query: 3' uucgaacucCGUUGUUGACGu 5'
                       | |:||:||||
   Ref: 5' ccggcaaccGGAGCAGCTGCa 3'

   Energy: -18.420000 kCal/Mol

Scores for this hit:
>ssp-miR444a
      KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      132.00   -18.42   2 13 8501 8521   11   72.73%   90.91%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>ssp-miR444a
      KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
      132.00   -18.42   132.00   -18.42   24   21   9575
8501
Complete

Read Sequence:ssp-miR444b (21 nt)

Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: ssp-miR444b vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=

   Forward: Score: 132.000000 Q:2 to 13 R:8501 to 8521 Align Len (11)
(72.73%) (90.91%)

    Query: 3' uucgaacucCGUUGUUGACGu 5'
                          | |:||:||||
    Ref: 5' ccggcaaccGGAGCAGCTGCa 3'

    Energy: -18.420000 kCal/Mol

Scores for this hit:
>ssp-miR444b
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     132.00   -18.42   2 13 8501 8521 11   72.73%   90.91%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>ssp-miR444b
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     132.00   -18.42   132.00   -18.42   25   21   9575
8501
Complete

Read Sequence:ssp-miR444c-3p (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=
Performing Scan: ssp-miR444c-3p vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=

   Forward: Score: 130.000000 Q:2 to 11 R:8501 to 8521 Align Len (9)
(77.78%) (100.00%)

    Query: 3' uucgaacucugUUGUUGACGu 5'
                           |:||:||||
    Ref: 5' ccggcaaccggAGCAGCTGCa 3'

    Energy: -18.420000 kCal/Mol

Scores for this hit:
>ssp-miR444c-3p
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     130.00   -18.42   2 11 8501 8521 9   77.78%   100.00%

```
    Forward: Score: 130.000000  Q:3 to 16  R:9268 to 9289 Align Len (14)
(85.71%) (92.86%)

    Query:    3' uucgaaCUCUGU-UGUUGACgu 5'
                    |||||| |||:|||
    Ref:      5' tacagaGAGACACACAGCTGgc 3'

    Energy:  -19.360001 kCal/Mol

Scores for this hit:
>ssp-miR444c-3p
    KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
    130.00     -19.36      3 16  9268 9289   14    85.71%     92.86%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>ssp-miR444c-3p
    KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
    260.00     -37.78     130.00    -19.36      26    21    9575
8501 9268
Complete

Read Sequence:ssp-miR1128 (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: ssp-miR1128 vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Score for this Scan:
No Hits Found above Threshold
Complete

Read Sequence:ssp-miR1432 (21 nt)
Read
Sequence:KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
(9575 nt)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Performing Scan: ssp-miR1432 vs
KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

    Forward: Score: 133.000000  Q:2 to 20  R:7523 to 7546 Align Len (21)
(66.67%) (71.43%)

    Query:    3' caGCC-ACAGUAG--AAAGGACUc 5'
                   ||| ||  |||    |||:|||
    Ref:      5' ggCGGTTGGAATCGACTTCTTGAg 3'

    Energy:  -22.320000 kCal/Mol
```

Scores for this hit:
>ssp-miR1432
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     133.00   -22.32   2 20 7523 7546 21   66.67%   71.43%

Score for this Scan:
Seq1,Seq2,Tot Score,Tot Energy,Max Score,Max
Energy,Strand,Len1,Len2,Positions
>>ssp-miR1432
     KY548506.2.1|KY548506.2.1assembly=CEL116|chr=X|strand=forward
     133.00   -22.32   133.00   -22.32   28   21   9575
7523
Complete

Scan Complete

RNA22 v2 results

Maximum folding energy was set -14Kcal/mol

```
Resulted have computed and are shown below.  If there are no results shown,
it means your chosen parameters yielded no results. Note: The p-value
represents the likelihood that the target site loci is random. That is, a
lower p-value represents a greater chance that the loci contains a valid MRE
```

miR Name	transcript name	leftmost position of predicted target site	folding energy (in -Kcal/mol)	heteroduplex	p value

sof_miR168a	KY548506.1 Sugarcane mosaic virus	846	-14.20	`ATTCAGATC--CAC-AAGCGA`
				` |:| ||||  ||| ||||||`
				`CAGGGCTAGACGTGGTTCGCT`
					3.2E-1

sof_miR168b	KY548506.1 Sugarcane mosaic virus	846	-14.60	`ATTCAGATC--CACAAGCGA`
				` |:| ||||    |||||||`
				`CAGGGCTAGACGGGTTCGCT`
					3.2E-1

sof_miR168a	KY548506.1 Sugarcane mosaic virus	1296	-18.70	`CTCCTGAGGACGCAATGAAAGCGA`
				` ||||:||    |||     ||||||`
				`CAGGGCT-AGACGT--GGTTCGCT`
					1.24E-1

ssp_miR1432	KY548506.1 Sugarcane mosaic virus	1315	-15.40	`AGCGAGTGTC-TCTTTGTTGGA`
				`  || |||||| ||||| :||:`
				`CAGC-CACAGTAGAAAGGACTC`
					1.24E-1

sof_miR159c	KY548506.1 Sugarcane mosaic virus	3730	-17.80	`AGGAGC-C--GTTGGTTCAGG` `||||||		:|:||:|` `TCCTCGAGGGAAGTTAGGTTC`	7.65E-2
sof_miR159c	KY548506.1 Sugarcane mosaic virus	3847	-18.00	`AGGTCCACCTTTCAATGTAAG` `|||	||:|||||| :|||` `TCCTCGAGGGAAGTTAGGTTC`	5.35E-2

ssp_miR444a	KY548506.1 Sugarcane mosaic virus	5311	-14.20	`AGGC-ACAGGCATGCAATTCCA`
				`|:||  ||||| :|||:| ||`
				`TTCGAACTCCGT-TGTTGACGT`
					8.17E-3

ssp_miR444b	KY548506.1 Sugarcane mosaic virus	5311	-14.20	`AGGC-ACAGGCATGCAATTCCA`
				`|:||  ||||| :|||:| ||`
				`TTCGAACTCCGT-TGTTGACGT`
					8.17E-3

sof_miR408a	KY548506.1 Sugarcane mosaic virus	5538	-15.30	`ACCAAGGAAAGAACAAGCGCAG`
				` ||| |||| ||   || ||||`
				`CGGTCCCTT-CTCCGTCACGTC`
					1.57E-1

sof_miR408b	KY548506.1 Sugarcane mosaic virus	5538	-15.30	`ACCAAGGAAAGAACAAGCGCAG`
				` ||| |||| ||   || ||||`
				`CGGTCCCTT-CTCCGTCACGTC`
					1.57E-1

sof_miR408c	KY548506.1 Sugarcane mosaic virus	5538	-15.30	`ACCAAGGAAAGAACAAGCGCAG`
				` ||| |||| ||   || ||||`
				`CGGTCCCTT-CTCCGTCACGTC`
					1.57E-1

miR Name	transcript name	leftmost position of predicted target site	folding energy (in - Kcal/mol)	heteroduplex	p value
sof_miR408d	KY548506.1 Sugarcane mosaic virus	5538	-15.30	ACCAAGGAAAGAACAAGCGCAG ||| |||| || || |||| CGGTCCCTT-CTCCGTCACGTC	1.57E-1
sof_miR408e	KY548506.1 Sugarcane mosaic virus	5538	-15.30	ACCAAGGAAAGAACAAGCGCAG ||| |||| || || |||| CGGTCCCTT-CTCAGTCACGTC	1.57E-1
ssp_miR444c_3p	KY548506.1 Sugarcane mosaic virus	5552	-18.50	AAGCGCAGTAGACAGAAGCTGCG |||| | |||||: |:||||: TTCG-AAC-TCTGTTGTTGACGT	1.57E-1
sof_miR396	KY548506.1 Sugarcane mosaic virus	6821	-14.20	AGTGTCGA-AGAGCAATGTGGAA ||:| |:||| ||||||| GTCAAGTTCTTTCG--ACACCTT	2.21E-1
ssp_miR444a	KY548506.1 Sugarcane mosaic virus	8502	-18.00	CGGCAACCGG-AGCAGCTGCA :|| || |:||:|||| TTCGAACTCCGTTGTTGACGT	9.19E-2
ssp_miR444b	KY548506.1 Sugarcane mosaic virus	8502	-18.00	CGGCAACCGG-AGCAGCTGCA :|| || |:||:|||| TTCGAACTCCGTTGTTGACGT	9.19E-2
ssp_miR444c_3p	KY548506.1 Sugarcane mosaic virus	9181	-14.30	CCACATGCAGATGAAGGCTGCA || ||| | :||||| TTCGAAC-TCTGTTGTTGACGT	3.07E-1
sof_miR167a	KY548506.1 Sugarcane mosaic virus	9520	-14.10	CGGA- CAGCGCTGAGGATGGCTTTG |:|| || ||| || ::||||: GTCTAGT-ACGA--CC- GTCGAAGT	2.11E-1
sof_miR167b	KY548506.1 Sugarcane mosaic virus	9520	-14.10	CGGA- CAGCGCTGAGGATGGCTTTG |:|| || ||| || ::||||: GTCTAGT-ACGA--CC- GTCGAAGT	2.11E-1

```
Tapirhybrid
#-----------------------
# Search parameters
# score <= 9
# mfe ratio >= 0.2
#-----------------------

target          KY548506.1
miRNA           sof-miR159c
score           7
mfe_ratio       0.58
start           3847
seed_gap        0
seed_mismatch   1
seed_gu         2
gap             0
mismatch        3
gu              0
miRNA_3'        UCCUCGAGGGAAGUUAGGUUC
aln             |||..|.||o||||||.o|||
target_5'       AGGUCCACCUUUCAAUGUAAG
//
target          KY548506.1
miRNA           sof-miR159e
score           8
mfe_ratio       0.46
start           1159
seed_gap        0
seed_mismatch   2
seed_gu         0
gap             0
mismatch        4
gu              0
miRNA_3'        UUCUCGAGGAAAGUUAGGUUU
aln             ||.||..|.||.|||||.||
target_5'       AAAAGACCGUUGCAAUCCUAA
//
target          KY548506.1
miRNA           sof-miR168b
score           9
mfe_ratio       0.46
start           406
seed_gap        0
seed_mismatch   2
seed_gu         1
gap             0
mismatch        4
gu              0
miRNA_3'        CAGGGCUAGACGGGUUCGCU
aln             ..|.|||.||.||.|||o||
target_5'       UCCACGACCUACCAAAGUGA
//
target          KY548506.1
miRNA           ssp-miR437a
score           8
mfe_ratio       0.69
start           4869
```

```
seed_gap        0
seed_mismatch 3
seed_gu         0
gap             1
mismatch        1
gu              0
miRNA_3'        UUCAGUUUGAAGAGAUUGAAA
aln             |||||.||||||..|||||..
target_5'       AAGUC-AACUUCAAUAACUGG
//
target          KY548506.1
miRNA           ssp-miR528
score           8.5
mfe_ratio       0.60
start           122
seed_gap        0
seed_mismatch 3
seed_gu         0
gap             1
mismatch        1
gu              1
miRNA_3'        GAGG-AGACGUACGGGGAAGGU
aln             ||||.||.|||||.|..|||||o
target_5'       CUCCUUCGGCAUUCGACUUCCG
//
target          KY548506.1
miRNA           ssp-miR444c-3p
score           7.5
mfe_ratio       0.59
start           5583
seed_gap        0
seed_mismatch 2
seed_gu         1
gap             0
mismatch        2
gu              1
miRNA_3'        UUCGAACUCUGUUGUUGACGU
aln             ||||..||||o|||||.|.|o
target_5'       AAGCACGAGAUAACAAAUACG
//
target          KY548506.1
miRNA           ssp-miR1128
score           8
mfe_ratio       0.66
start           4534
seed_gap        0
seed_mismatch 3
seed_gu         1
gap             1
mismatch        0
gu              0
miRNA_3'        AAACCCUGCCUCCCUCAUCAU
aln             |||||||||.|||..o||||.|
target_5'       UUUGGGAC-GAGUUGGUAGGA
//
```

```
miRNA_Acc.  Target_Acc. Expectation UPE$  miRNA_start miRNA_end
       Target_start      Target_end miRNA_aligned_fragment alignment
       Target_aligned_fragment      Inhibition Target_Desc.
       Multiplicity
sof-miR159a KY548506.1 5.5  -1.0  1     21    5911  5931
       UUUGGAUUGAAGGGAGCUCUG      ::::..::..: :: :::    GCAAGCUUUCUUUAUUCAAAA
       Cleavage    Sugarcane mosaic virus 3
sof-miR159b KY548506.1 5.5  -1.0  1     21    5911  5931
       UUUGGAUUGAAGGGAGCUCUG      ::::..::..: :: :::    GCAAGCUUUCUUUAUUCAAAA
       Cleavage    Sugarcane mosaic virus 3
sof-miR159c KY548506.1 5.5  -1.0  1     21    3847  3867
       CUUGGAUUGAAGGGAGCUCCU  :::   : ::.:::::: .:::    AGGUCCACCUUUCAAUGUAAG
       Cleavage    Sugarcane mosaic virus 2
sof-miR159d KY548506.1 5.5  -1.0  1     21    5911  5931
       UUUGGAUUGAAGGGAGCUCUG      ::::..::..: :: :::    GCAAGCUUUCUUUAUUCAAAA
       Cleavage    Sugarcane mosaic virus 3
sof-miR159e KY548506.1 5.5  -1.0  1     21    3847  3867
       UUUGGAUUGAAAGGAGCUCUU  :.:   : :::::::::: .::.    AGGUCCACCUUUCAAUGUAAG
       Cleavage    Sugarcane mosaic virus 2
sof-miR168a KY548506.1 5.5  -1.0  1     21    9129  9149
       UCGCUUGGUGCAGAUCGGGAC   :..::::.: .:: :::.::    CUUUCGAUUUUUACGAAGUGA
       Translation Sugarcane mosaic virus 3
sof-miR156  KY548506.1 6.5  -1.0  1     20    5909  5928
       UGACAGAAGAGAGUGAGCAC     :::  .::.:::::.  :::    UUGCAAGCUUUCUUUAUUCA
       Cleavage    Sugarcane mosaic virus 1
sof-miR159a KY548506.1 6.5  -1.0  1     21    1804  1824
       UUUGGAUUGAAGGGAGCUCUG    .::  :.:: :..: :::::    AGGAAAUUCCAUUGACCCAAA
       Translation Sugarcane mosaic virus 3
sof-miR159b KY548506.1 6.5  -1.0  1     21    1804  1824
       UUUGGAUUGAAGGGAGCUCUG    .::  :.:: :..: :::::    AGGAAAUUCCAUUGACCCAAA
       Translation Sugarcane mosaic virus 3
sof-miR159c KY548506.1 6.5  -1.0  1     21    5911  5931
       CUUGGAUUGAAGGGAGCUCCU      :::::..::..: :: ::    GCAAGCUUUCUUUAUUCAAAA
       Cleavage    Sugarcane mosaic virus 2
sof-miR159d KY548506.1 6.5  -1.0  1     21    1804  1824
       UUUGGAUUGAAGGGAGCUCUG    .::  :.:: :..: :::::    AGGAAAUUCCAUUGACCCAAA
       Translation Sugarcane mosaic virus 3
sof-miR168a KY548506.1 6.5  -1.0  1     21    2971  2991
       UCGCUUGGUGCAGAUCGGGAC   : ..:.:::..:::. ::    AUAUUGGUUUGUACCAGACGU
       Cleavage    Sugarcane mosaic virus 3
sof-miR168b KY548506.1 6.5  -1.0  1     20    2562  2581
       UCGCUUGGGCAGAUCGGGAC    : ..:::: : :.:::::    AUGUUGAUCCGGCUAAGCGU
       Translation Sugarcane mosaic virus 1
sof-miR396  KY548506.1 6.5  -1.0  1     21    7116  7135
       UUCCACAGCUUUCUUGAACUG  ::::: .::.:. ::: ::    CAGUU-GAGAGAGUCGUGAAA
       Cleavage    Sugarcane mosaic virus 1
sof-miR159a KY548506.1 7.0  -1.0  1     21    3847  3867
       UUUGGAUUGAAGGGAGCUCUG      : ::.:::::: .::.    AGGUCCACCUUUCAAUGUAAG
       Cleavage    Sugarcane mosaic virus 3
sof-miR159b KY548506.1 7.0  -1.0  1     21    3847  3867
       UUUGGAUUGAAGGGAGCUCUG      : ::.:::::: .::.    AGGUCCACCUUUCAAUGUAAG
       Cleavage    Sugarcane mosaic virus 3
```

```
sof-miR159d KY548506.1 7.0   -1.0 1    21   3847 3867
     UUUGGAUUGAAGGGAGCUCUG       : ::.:::::: .::.  AGGUCCACCUUUCAAUGUAAG
     Cleavage    Sugarcane mosaic virus 3
sof-miR159e KY548506.1 7.0   -1.0 1    21   6712 6732
     UUUGGAUUGAAAGGAGCUCUU  :.::   : :: .:::::.::  AGGAUGGCAUUAUAAUCCGAA
     Translation Sugarcane mosaic virus 2
sof-miR167a KY548506.1 7.0   -1.0 1    21   2427 2447
     UGAAGCUGCCAGCAUGAUCUG   ::.::  :::: .: .::.  AAGGUCUAGCUGCUAUUUUCG
     Cleavage    Sugarcane mosaic virus 1
sof-miR167b KY548506.1 7.0   -1.0 1    21   2427 2447
     UGAAGCUGCCAGCAUGAUCUG   ::.::  :::: .: .::.  AAGGUCUAGCUGCUAUUUUCG
     Cleavage    Sugarcane mosaic virus 1
sof-miR168a KY548506.1 7.0   -1.0 1    21   547  568  UCGCUUGGUGCA-
GAUCGGGAC     :.:: :. : ::.:::::: AACUCGCUUGUCCAUCAAGCGA Translation
     Sugarcane mosaic virus 3
sof-miR408e KY548506.1 7.0   -1.0 1    21   6544 6564
     CUGCACUGACUCUUCCCUGGC    ::  :.: .:::: ::..:  AACAACGGACGGUCAAUGUGG
     Cleavage    Sugarcane mosaic virus 1
```

```
ssp-miR444c-3p   KY548506.1 5.5  -1.0  1    21    2367  2387
     UGCAGUUGUUGUCUCAAGCUU   ::::: : :.::::.::.::.   UAGCUUUAUAUAAUAAUUGUU
     Cleavage    Sugarcane mosaic virus 6
ssp-miR166 KY548506.1 6.0  -1.0  1    21    4179  4199
     UCGGACCAGGCUUCAUUCCCC   :: : : ..: :::::.:::   UGGAACUUGGGACUGGUUCGA
     Translation Sugarcane mosaic virus 1
ssp-miR444c-3p   KY548506.1 6.0  -1.0  1    21    5583  5603
     UGCAGUUGUUGUCUCAAGCUU   ::::  :::::.::::: : :.   AAGCACGAGAUAACAAAUACG
     Cleavage    Sugarcane mosaic virus 6
ssp-miR444b.1    KY548506.1 6.5  -1.0  1    21    7142  7162
     UUGUGGCUUUCUUGCAAGUUG  :... :::::.::: :: .:::   CGGGAUGCAGGAAUGCAGCAA
     Cleavage    Sugarcane mosaic virus 4
ssp-miR444b.1    KY548506.1 6.5  -1.0  1    21    3992  4011
     UUGUGGCUUUCUUGCAAGUUG   :.::: : ::: ::::::   AUAUUUG-ACGAAUGCCACAU
     Cleavage    Sugarcane mosaic virus 4
ssp-miR444c-3p   KY548506.1 6.5  -1.0  1    21    3441  3460
     UGCAGUUGUUGUCUCAAGCUU   .::.:: :::::::: :::.   GAGUUUU-GACAACACCUGUU
     Cleavage    Sugarcane mosaic virus 6
ssp-miR1432 KY548506.1 7.0  -1.0  1    21    3980  4000
     CUCAGGAAAGAUGACACCGAC    :: : ::::: : ..:::   UACGAUUUCAUCAUAUUUGAC
     Cleavage    Sugarcane mosaic virus 1
ssp-miR437b KY548506.1 7.0  -1.0  1    21    727   747
     AAAGUUAGACAAGUUUGACAU   : : .. : : ::.:.::::   AGGCUGUAGUGGUUUGACUUU
     Translation Sugarcane mosaic virus 1
ssp-miR437c KY548506.1 7.0  -1.0  1    21    2981  3001
     AAAGUUAGAGAAGUCUGACUU     ::::: :::.::. ::   GUACCAGACGUCUUUAGAUUA
     Cleavage    Sugarcane mosaic virus 1
ssp-miR444a KY548506.1 7.0  -1.0  1    21    1058  1077
     UGCAGUUGUUGCCUCAAGCUU   .::.::.::.::: :.:: .:   GAGUUUGGGGCGA-AGCUAUA
     Cleavage    Sugarcane mosaic virus 3
ssp-miR444a KY548506.1 7.0  -1.0  1    21    2367  2387
     UGCAGUUGUUGCCUCAAGCUU    ::::: : .::.::.::.   UAGCUUUAUAUAAUAAUUGUU
     Cleavage    Sugarcane mosaic virus 3
ssp-miR444a KY548506.1 7.0  -1.0  1    21    6641  6661
     UGCAGUUGUUGCCUCAAGCUU     .::: :::.:.. ::: :   UUCUUUGUGGCGAUGCCUGAA
     Cleavage    Sugarcane mosaic virus 3
ssp-miR444b.1    KY548506.1 7.0  -1.0  1    21    1058  1078
     UUGUGGCUUUCUUGCAAGUUG   :..:: .. .:::::.:::   GAGUUUGGGGCGAAGCUAUAC
     Translation Sugarcane mosaic virus 4
ssp-miR444b.1    KY548506.1 7.0  -1.0  1    21    715   735
     UUGUGGCUUUCUUGCAAGUUG    ...:: :: ::::::...:.   AGGUUUCAAACAAGGCUGUAG
     Translation Sugarcane mosaic virus 4
ssp-miR444b.2    KY548506.1 7.0  -1.0  1    21    1058  1077
     UGCAGUUGUUGCCUCAAGCUU   .::.::.::.::: :.:: .:   GAGUUUGGGGCGA-AGCUAUA
     Cleavage    Sugarcane mosaic virus 3
ssp-miR444b.2    KY548506.1 7.0  -1.0  1    21    2367  2387
     UGCAGUUGUUGCCUCAAGCUU    ::::: : .::.::.::.   UAGCUUUAUAUAAUAAUUGUU
     Cleavage    Sugarcane mosaic virus 3
ssp-miR444b.2    KY548506.1 7.0  -1.0  1    21    6641  6661
     UGCAGUUGUUGCCUCAAGCUU     .::: :::.:.. ::: :   UUCUUUGUGGCGAUGCCUGAA
     Cleavage    Sugarcane mosaic virus 3
ssp-miR444c-3p   KY548506.1 7.0  -1.0  1    21    1763  1783
     UGCAGUUGUUGUCUCAAGCUU      :::::.::: :: ::   UACUCUGAGAUAAUACCUCCA
     Cleavage    Sugarcane mosaic virus 6
```

```
ssp-miR444c-3p    KY548506.1 7.0   -1.0  1    21    7663  7683
     UGCAGUUGUUGUCUCAAGCUU     .:::.:: :::.: ::.    GGAUUUGGGAGAACGAAUGUU
     Translation Sugarcane mosaic virus 6
ssp-miR444c-3p    KY548506.1 7.0   -1.0  1    21    9282  9302
     UGCAGUUGUUGUCUCAAGCUU    :::: : :::. .:.. :::   CAGCUGGCGACGUUAGUCGCA
     Cleavage    Sugarcane mosaic virus 6
```

```
Individual hits
---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR156
length: 20

mfe: -23.9 kcal/mol
p-value: undefined

position  9402
target 5' G    UG    GU     C    3'
           GCUU  UCUC  UUCUG
           CGAG  AGAG  AAGAC
miRNA  3' CA    UG          AGU  5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR159a
length: 21

mfe: -23.2 kcal/mol
p-value: undefined

position  8953
target 5' A     AU          AA    U 3'
           AGAGU  UUCCUUUAA  CCAG
           UCUCG  AGGGAAGUU  GGUU
miRNA  3' G               A     U 5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR159b
length: 21

mfe: -23.2 kcal/mol
p-value: undefined

position  8953
target 5' A     AU          AA    U 3'
           AGAGU  UUCCUUUAA  CCAG
           UCUCG  AGGGAAGUU  GGUU
miRNA  3' G               A     U 5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
```

```
miRNA : sof-miR159c
length: 21

mfe: -25.4 kcal/mol
p-value: undefined

position  1830
target 5' U   U     AAGCACG   CC       U 3'
          GGA CUCCC       UCA  UCCAAG
          CCU GAGGG       AGU  AGGUUC
miRNA  3' U   C     A          U       5'

--------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR159d
length: 21

mfe: -23.2 kcal/mol
p-value: undefined

position  8953
target 5' A     AU          AA     U 3'
          AGAGU   UUCCUUUAA  CCAG
          UCUCG   AGGGAAGUU  GGUU
miRNA  3' G                 A     U 5'

--------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR159e
length: 21

mfe: -21.6 kcal/mol
p-value: undefined

position  8952
target 5' A      AUU      AAAA    U 3'
          AAGAGU   UCCUUU    CCAG
          UUCUCG   AGGAAA    GGUU
miRNA  3'                GUUA    U 5'

--------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR167a
length: 21

mfe: -24.4 kcal/mol
p-value: undefined
```

```
position  2699
target 5' G       AUUAAACCA    AUG       A     U 3'
         UAGAUCA            UGC    GGCAG UUUA
         GUCUAGU            ACG    CCGUC AAGU
miRNA  3'                    A         G       5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR167b
length: 21

mfe: -24.4 kcal/mol
p-value: undefined

position  2699
target 5' G       AUUAAACCA    AUG       A     U 3'
         UAGAUCA            UGC    GGCAG UUUA
         GUCUAGU            ACG    CCGUC AAGU
miRNA  3'                    A         G       5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR168a
length: 21

mfe: -25.8 kcal/mol
p-value: undefined

position  1296
target 5' C       GGAC    AUGA       G 3'
         UCCUGA      GCA      AAGCGA
         AGGGCU      CGU      UUCGCU
miRNA  3' C       AGA     GG           5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR168b
length: 20

mfe: -27.0 kcal/mol
p-value: undefined

position  1818
target 5'  A   AAAAAUAGUG                A  3'
           CCC             GAUCU CCCAAGC
           GGG             CUAGA GGGUUCG
miRNA  3' CA                 C         CU 5'
```

```
--------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR396
length: 21

mfe: -27.6 kcal/mol
p-value: undefined

position  5016
target 5' A           U         UAC     G 3'
            UAGUUCAAG  AGCUGU    GGGA
            GUCAAGUUC  UCGACA    CCUU
miRNA  3'            UU                 5'

--------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR408a
length: 21

mfe: -27.3 kcal/mol
p-value: undefined

position  8355
target 5' U       UACUU     AUUACAAUGA  AUGUUGUCCAUCAG    G 3'
            GCCAGGG     GGAGG          AG             GCAG
            CGGUCCC     UCUCC          UC             CGUC
miRNA  3'          U         G            A                  5'

--------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR408b
length: 21

mfe: -27.3 kcal/mol
p-value: undefined

position  8355
target 5' U       UACUU     AUUACAAUGA  AUGUUGUCCAUCAG    G 3'
            GCCAGGG     GGAGG          AG             GCAG
            CGGUCCC     UCUCC          UC             CGUC
miRNA  3'          U         G            A                  5'

--------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR408c
```

```
length: 21

mfe: -27.3 kcal/mol
p-value: undefined

position  8355
target 5' U       UACUU     AUUACAAUGA  AUGUUGUCCAUCAG    G 3'
           GCCAGGG      GGAGG            AG              GCAG
           CGGUCCC      UCUCC            UC              CGUC
miRNA  3'          U         G             A                    5'

-------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR408d
length: 21

mfe: -27.3 kcal/mol
p-value: undefined

position  8355
target 5' U       UACUU     AUUACAAUGA  AUGUUGUCCAUCAG    G 3'
           GCCAGGG      GGAGG            AG              GCAG
           CGGUCCC      UCUCC            UC              CGUC
miRNA  3'          U         G             A                    5'

-------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : sof-miR408e
length: 21

mfe: -24.8 kcal/mol
p-value: undefined

position  3633
target 5' G  U        A     U    G A 3'
            GC CGGGGGA AGUU GUG A
            CG GUCCCUU UCAG CAC U
miRNA  3'              C      U    G C 5'

-------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR166
length: 21

mfe: -24.9 kcal/mol
p-value: undefined

position  3714
```

```
target 5' A       UUUUACUCCGA      GU      A  3'
            GGAGU              GGAGCC  UGGUUC
            CCUUA              CUUCGG  ACCAGG
miRNA  3' CC                             CU 5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR169
length: 21

mfe: -28.0 kcal/mol
p-value: undefined

position  8458
target 5' U          AA    AC    A  3'
            CCGGCAAGU  CGUU   GGC
            GGCCGUUCA  GUAG   CCG
miRNA  3'              GAA    AU 5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR437a
length: 21

mfe: -21.2 kcal/mol
p-value: undefined

position  4868
target 5' A            AA     G  3'
            AAGUC AACUUC  UAACU
            UUCAG UUGAAG  AUUGA
miRNA  3'       U     AG     AA 5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR437b
length: 21

mfe: -20.2 kcal/mol
p-value: undefined

position  2416
target 5' A     AAUCAAG         G  3'
            GUUAAA        GUCUAGCU
            CAGUUU        CAGAUUGA
miRNA  3' UA      GAA              AA 5'

---------------------------------------------------------------
```

```
dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR437c
length: 21

mfe: -21.9 kcal/mol
p-value: undefined

position  9395
target 5' A     G      UUG     GUUUCU      U 3'
            AAGU AGGCU   UCUC        GCUUU
            UUCA UCUGA   AGAG        UGAAA
miRNA  3'      G             AU          5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR528
length: 21

mfe: -26.5 kcal/mol
p-value: undefined

position  121
target 5' C        CG      U GA      G 3'
            CUCCUU  GCAU C  CUUCCG
            GAGGAG  CGUA G  GAAGGU
miRNA  3'        A     C GG        5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR827
length: 21

mfe: -23.2 kcal/mol
p-value: undefined

position  6338
target 5'   A     C AGAGAUA        A    3'
             UUGCU GA       UGGUCAUC
             AACGA CU       ACCAGUAG
miRNA  3' ACA                      AUU 5'

---------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR444a
length: 21
```

```
mfe: -29.0 kcal/mol
p-value: undefined

position  1057
target 5' C            AAGCUAU    GAAU     A 3'
          GAGUUUGGGGCG       ACAA    CUGCA
          UUCGAACUCCGU       UGUU    GACGU
miRNA  3'                               5'

-------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR444b
length: 21

mfe: -29.0 kcal/mol
p-value: undefined

position  1057
target 5' C            AAGCUAU    GAAU     A 3'
          GAGUUUGGGGCG       ACAA    CUGCA
          UUCGAACUCCGU       UGUU    GACGU
miRNA  3'                               5'

-------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR444c-3p
length: 21

mfe: -26.3 kcal/mol
p-value: undefined

position  1057
target 5' C            AAGCUAU    GAAU     A 3'
          GAGUUUGGGGCG       ACAA    CUGCA
          UUCGAACUCUGU       UGUU    GACGU
miRNA  3'                               5'

-------------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR1128
length: 21

mfe: -27.3 kcal/mol
p-value: undefined

position  4533
target 5' G             UU     G  3'
```

```
        UUUGGGAC GAG  GGUAG
        AAACCCUG CUC  UCAUC
miRNA  3'           C   CC      AU 5'

-----------------------------------------------------------

dataset: 1
target: KY548506.1
length: 9575
miRNA : ssp-miR1432
length: 21

mfe: -22.2 kcal/mol
p-value: undefined

position  1316
target 5'  G  A           G    A 3'
            CG GUGUC UCUUU UUGG
            GC CACAG AGAAA GACU
miRNA  3' CA        U     G    C 5'

-----------------------------------------------------------
```