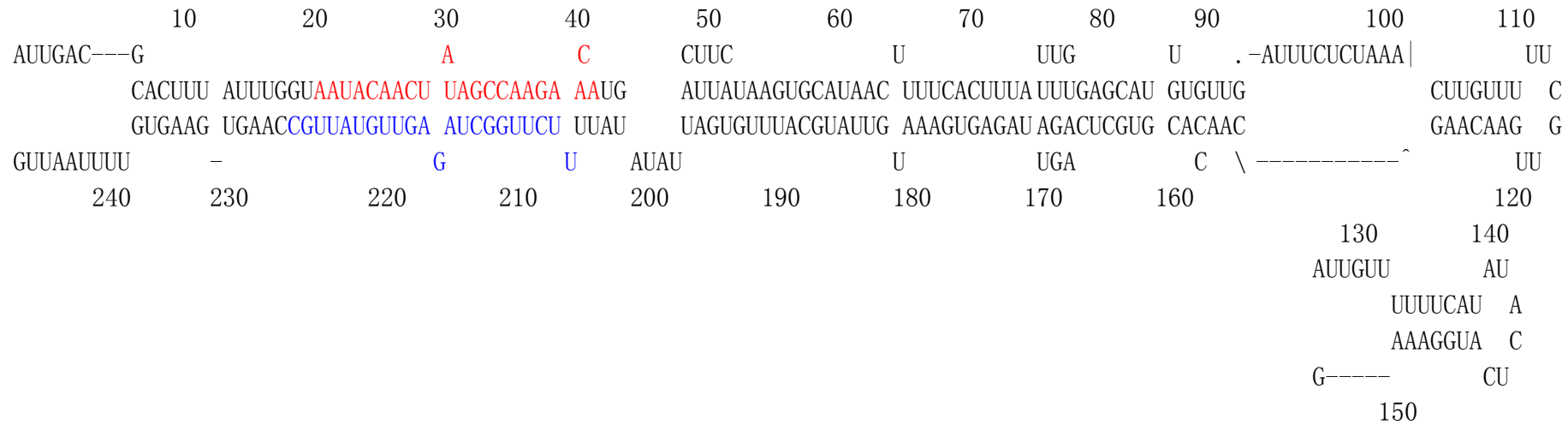


Appendix D Secondary structures of predicted precursors for new tomato miRNAs.

The mature miRNA and miRNA* sequences are underlined in red and blue, respectively.

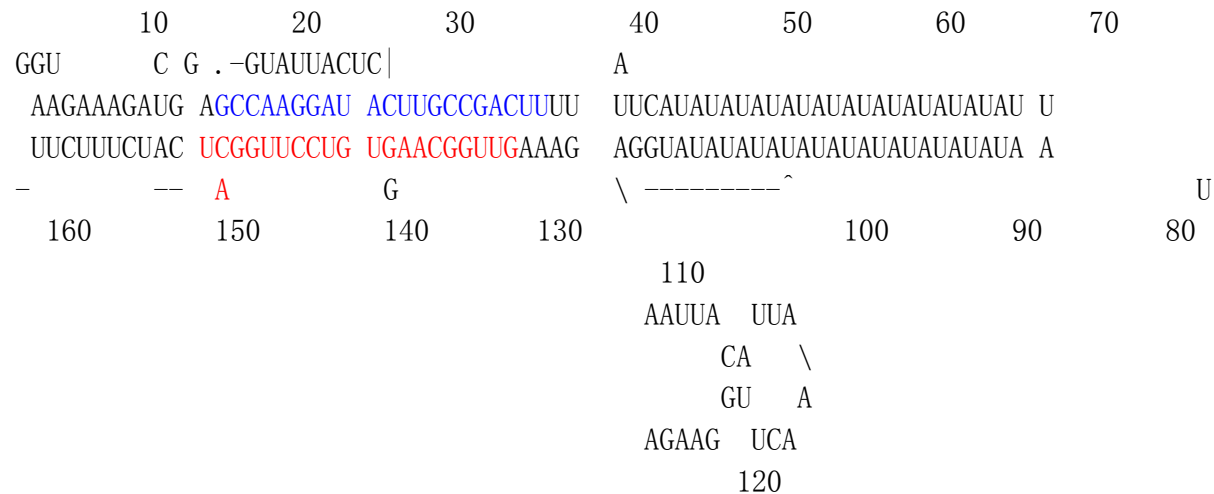
miR-m9007

Initial $\Delta G = -107.70$



miR-m9051

Initial $\Delta G = -77.00$



miR-m9063

Initial ΔG = -44.80

1020304050

AACU---|AUGUAAUAAGGCCUCAUC

GGAA GGGAAG GG GAAACAAC CUUGCUGAAAGGAA UUCA AG \

CCUU CUCUUC CC UUUUGUUG GAACGAUUUUUUU AGGU UC U

CUCUCUG^ AA- U AA A G UU UUUUC

11010090807060

miR-m9121

Initial ΔG = -66.10

102030405060

-|CAUAUAAGCAACAC

AUUA UGCAAUUCUCUGAUGAAGCAACGUGGAGAAAAA CU AUC GUGGAU \

UAAU ACGUUAAGAGACUAGUUCGUUGCAACCUCUUUUU GA UAG UACCUA A

U^ A - U ACAACC- CA

.110100908070

miR-m9319

Initial ΔG = -48.30

102030405060

GAGG----UAUUAUUAUUG-----|UA

GAUUGGGACUUGGGUGGGUGGAUUAUUUUUUUUUC\

CUGACCUUGAACCUACCCACCUUACCUUUUAGUAGAAAAAAGA

CUCAUUUA- CGU- GUGAGUUAAGA^GC

120110100908070

miR-m9320

Initial ΔG = -51.70

1020304050

----|UUGGUUA- UU

GUGUCAGGAGUGUGGAGUGGUGUGGUAAGAUUUAUUUAU\

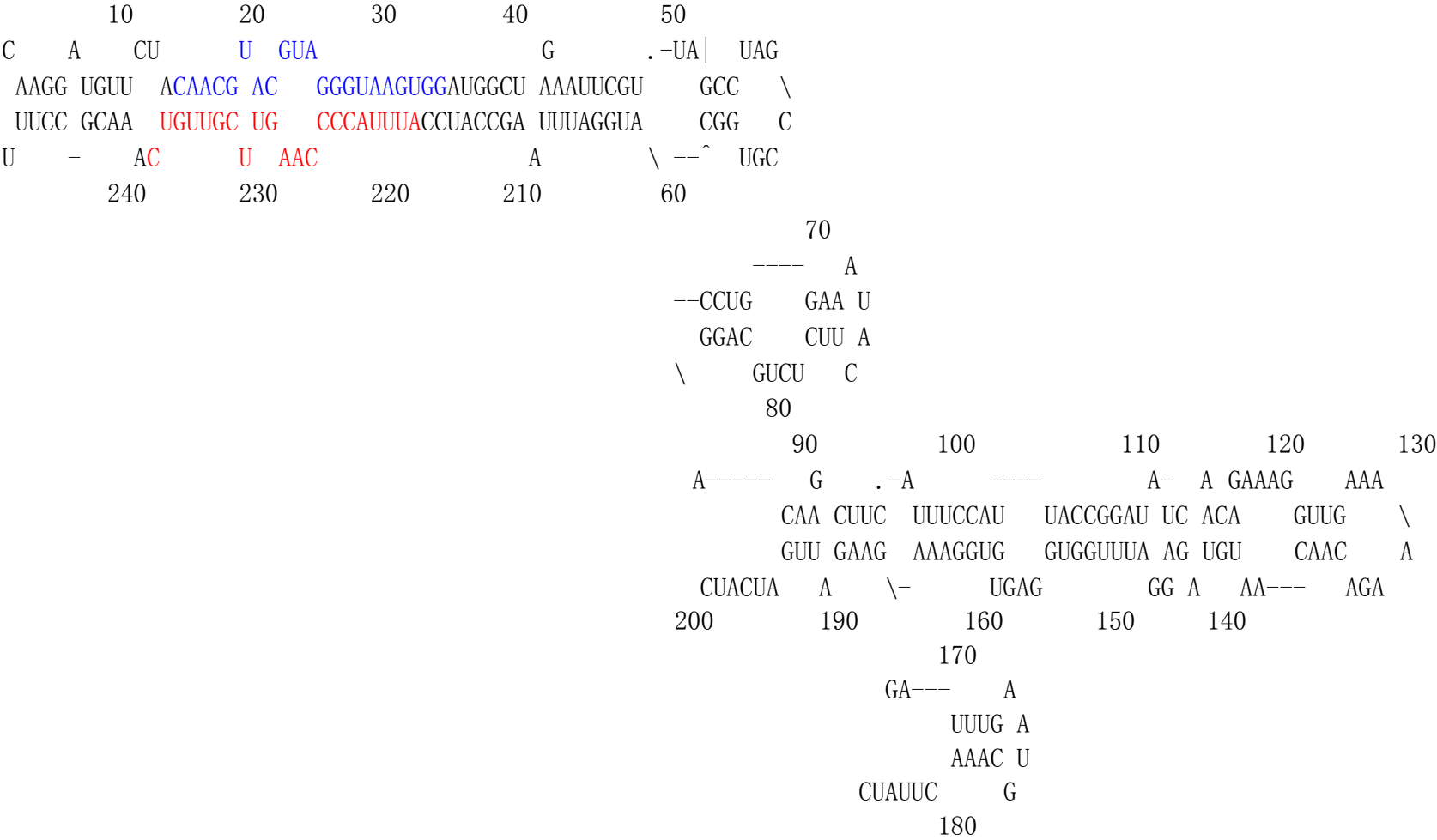
UACAGUCUUCGUAACCUAACCGCCAUAACGUUCUAGAGUAAAUAU

UCUU^U- -GUUAAC

10090807060

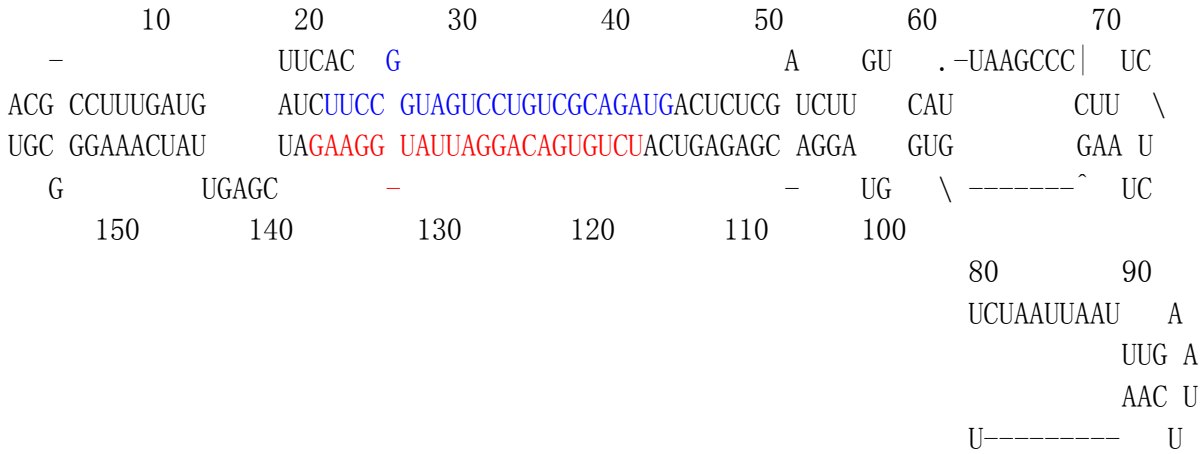
miR-m9376

Initial ΔG = -83.20



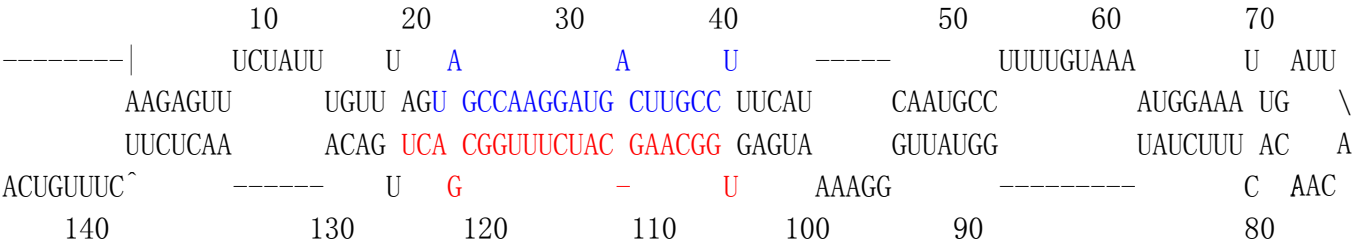
miR-m9397

Initial ΔG = -76.10



miR-m9398

Initial ΔG = -51.50



Initial $\Delta G = -81.50$

$$\begin{array}{cc} \text{C-AC} & \text{GGC} \\ & \backslash \\ & \text{CCG} \quad \text{C} \\ \text{UA} & \text{AC} \\ & 110 \end{array}$$

Initial $\Delta G = -63.10$

C

GGGU A .-AUGUAU| C G AA CA UC
CUUCAACUUU GUGCACAAGUAGACACUU AAC AAAG UGA CA UAGG GACAUG \
GAAGUUGAAA UACGUGUUUGUCUGUGAA UUG UUUU ACU GU AUCC CUGUAC C

- AUAU A \ -----^ U - GC UA AA

190 180 170 160 90 80

100 110
. -U UA CC
UGUCC ACGUG UUUUG \

AUAGG UGUAC AAGAU G
 \ -UC AU 130
 120
 140
 G---UU UUUA
 U
 AAAU A
 UUGA UU
 150

miR-m9488
Initial $\Delta G = -58.00$

10	20	30	40	50	60	70
UUUCGUA—	U	AC	A U	G	. -AUAUGCAAA	GAU
AUUU	ACAUGAUU	AUGGGUAGC	AAGGAUU	AUG	GAAACA	AAAAGUG GAA G
UAAG	UGUACU	AAUACCUAUCG	UUCCUAA	UGC	CUUUGU	UUUUCAC CUU G
UUUAUUGUG	U	GC	G U	G	\ -----	AGA
160	150	140	130	120	110	80 90
					AA-----	UUA
					UUGU	U
					AGCA	U
					AAAAGA	UUG
					100	

miR-m9552

Initial ΔG = -83.40

1020304050607080

GA A AG CA U C UUAUUUCAG .-A| A

UGGUAUAACGGUGAU AUGGUAUUCUAAUAUUGCUGAAAGUU A GAUUUAC G CUUUUG AUGC GG A

ACCAUUAUUGCCACUA UACCAUAAGGUUAUAACGAUUUUAA U CUAAAUG C GAAAAC UACG CC C

CC C CU AC C - UG----- \ -^ A

180 170 160 150 140 130 120

90100

AAUA - AA

CAAG AAGC \

GUUC UUCG U

G--- G AG

110

miR-m9596

Initial ΔG = -53.00

102030405060

-U - UG UA AAGAAAA- AAUAAUA-| G

GA UUA GU AUUUCUCUGGUGCU CUCAACUAAUAGUUAUUUUUUC UC UUG A

CU AGU CA UAAAGAGAUUACGA GAGUUGGUUAUCAAUAGUAGGAG AG AAC A

U U A GU C- ACUAUCAG GUAAGAGG^G

130 120 110 100 90 80 70

miR-m9597

Initial Δ = -65.20

10203040506070

- G U - UGA UG AA C AUAUA---| G

UU AGA UCA GUUGAUUUC GGUGCUCACUCAGCUAAUAGUUAU UUU GAAA UCA UUG C

GA UCU AGU CAGCUAAAG CUACGAGUGAGUCGGUUAUCAAUA AGG CUUU AGU AAC A

A G U A UCA GU A- C GGUAAGAGG^ G

1401301201101009080

miR-m9614

Initial ΔG = -127.20

102030405060708090100110120130140

- A C U CA A A ----| G UGUCUAUGU U C .-AUAUUUCA AUGGAUG A G

UCUGUUCAUAUCCAUG GA UGUUUUUGGGUAAGAUUGUU AU UA UAAUCAUAAAUACU GAU GACC UGCUUGU UGC CGGACU UUUA CGUGUUGGAUUC CCAAAGUA \

AGACGAGUAUAAGGUAC CU ACAGAAACCUAUUCUAACAA UA AU AUUAGUGUUUGUGA CUG CUGG AUGAACA ACG GCCUGA AAGU GCACAGCUUAAG GGUUUUUAU U

G - A C AC C A CUCC^ - ----- C U \ ----- A G

. 270260250240230220210200190180170160150

170

G--G A

GC CG C

UG GC A

GAA - U

180

Initial $\Delta G = -125.60$

AUC C
CC A
GG C
--- C 230

miR-m0616

Initial ΔG = -67.80

102030405060

GA CU U .-CCUA G- .-CUC| A A

GUUUUUGGAUAAGAU UU ACCGUAGUAAUCACAAAU GAC ACUGUG UUGG CAGA A

CAGAGACCUAUUCUA GA UGGCAUCAUUAGUGUUUG CUG UGACAU AACU GUCU U

AA AG C \ ---- GA \ ---^ A U

170 160 150 140 120 70

80 90

A CCCU AA

GCAUUU UCUU A

CGUAAG AGAA U

U ----CU

110 100

C A
CUC\
GAG U
U C
130
