ANNEXURE 1
SUPPLEMENTARY DATA

Table 1: Precursor miRNA nucleotide sequences and its length

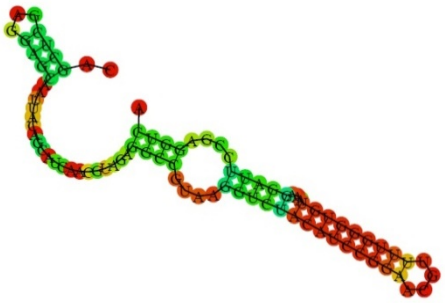
S.No	Annotated Namesof Pre-miRNA	Nucleotide Sequences	Length
1	>Csa-mir-1	CUGCCUCCCCUGUAAAACUACCCUUUGAAAACCUCUCUUUCUU AAUCUUUUCUUUGUAAUUCCUAUGGCGACGUCCUCGUUCAAC	85
2	>Csa-mir-2	ACUACUCGCGACCGCCCUCGUUGAUAAGACAGCUCAUGAGCAG CUCGAGGAGCAAUUACAGCAUCAACGUAGAGGCCGUAAGGUC	85
3	>Csa-mir-3	CAGCUCGAGGAGCAAUUACAGCAUCAACGUAGAGGCCGUAAGG UCUACAUCCGGAACGUUUUGGGUGUAAAGGAUUCCGAGGUCA	85
4	>Csa-mir-4	CCCUCCGCUUGUGUGAAACUCUCGAUUGUCUAGACUCUUUCCC UUCAUCAGGUCUGCGGCAGGACCUCGUCUUAGACUUCGGAGG	85
5	>Csa-mir-5	UAGACUCUUUCCCUUCAUCAGGUCUGCGGCAGGACCUCGUCUU AGACUUCGGAGGAAGUUGGGUCACACAUUACCUCCGCGGACA	85
6	>Csa-mir-6	CCCUUCAUCAGGUCUGCGGCAGGACCUCGUCUUAGACUUCGGA GGAAGUUGGGUCACACAUUACCUCCGCGGACAUAACGUACAC	85
7	>Csa-mir-7	UUGAACGAUCCACAACAGUUCGAUGGUCGGCAGCCGGAUUUCU GCACUCAACCGGCUGCGGAUUGCAAAGUACAAGCCCACUUUG	85
8	>Csa-mir-8	UCUAUUCAUGGAGGUUAUGAUAUGGGCUUUAGAGGAUUAUGUG AAGCGAUGAAUGCUCACGGAACCACUAUUUUGAAGGGAACGA	85
9	>Csa-mir-9	UUUUCUCCCGCGUGCGGAAGUUCAAGACGAUGGUAGCUUUUGA UUUCAUCAACGAGUCUACUAUGUCUUAUGUUCAUGAUUGGGA	85
10	>Csa-mir-10	UGGUAGCUUUUGAUUUCAUCAACGAGUCUACUAUGUCUUAUGU UCAUGAUUGGGAGAAUAUAAAAUCUUUUCUUACGGACCAGAC	85
11	>Csa-mir-11	CGUACCGAGGGAUGACUUACGGUAUCGAACGCUGCGUUAUCCA CGCUGGUAUUAUGACGUACAAGAUUAUCGGUGUACCUGGGAU	85
12	>Csa-mir-12	UGUAUUUGGUUCCCCUCUAUUAAAGACUAUGUUGGUCUAAAGA UCCCCGCGUCGCAGGAUUUGGUUGAGUGGAAAACAGUGCGGA	85
13	>Csa-mir-13	UACGUGAGACUGAAGAGAUUGCUAUGAGGUGUUAUAAUGAUAA GAAAGCGUGGAUGGAACAGUUCAAGGUUAUCCUAGGUGUUCU	85
14	>Csa-mir-14	GCUAUGAGGUGUUAUAAUGAUAAGAAAGCGUGGAUGGAACAG UUCAAGGUUAUCCUAGGUGUUCUAUCCGCGAAAUCAUCUACCA	85
15	>Csa-mir-15	GUUAUAAUGAUAAGAAAGCGUGGAUGGAACAGUUCAAGGUUAU CCUAGGUGUUCUAUCCGCGAAAUCAUCUACCAUUGUUAUUAA	85

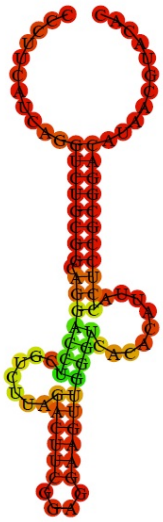
Table 2: Distinguish between hairpin structures and non-hairpin structures

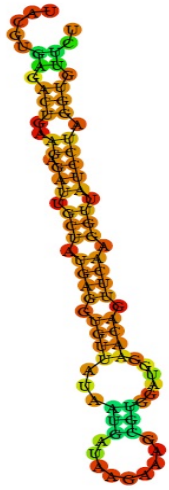
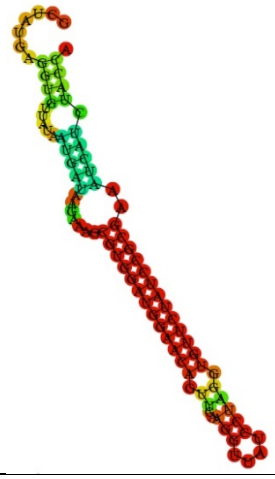
S.No.	Annotated Precursor miRNA	Hair-pin Structures
1	>Csa-mir-1	No
2	>Csa-mir-2	No
3	>Csa-mir-3	Yes
4	>Csa-mir-4	Yes
5	>Csa-mir-5	Yes
6	>Csa-mir-6	Yes
7	>Csa-mir-7	No
8	>Csa-mir-8	Yes
9	>Csa-mir-9	No
10	>Csa-mir-10	No
11	>Csa-mir-11	No
12	>Csa-mir-12	No
13	>Csa-mir-13	Yes
14	>Csa-mir-14	Yes
15	>Csa-mir-15	Yes
16	>Csa-mir-16	Yes
17	>Csa-mir-17	Yes
18	>Csa-mir-18	No
19	>Csa-mir-19	Yes
20	>Csa-mir-20	Yes
21	>Csa-mir-21	Yes
22	>Csa-mir-22	Yes
23	>Csa-mir-23	Yes
24	>Csa-mir-24	Yes
25	>Csa-mir-25	No
26	>Csa-mir-26	Yes

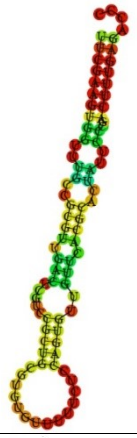
27	**>Csa-mir-27**	**Yes**
28	**>Csa-mir-28**	**No**
29	**>Csa-mir-29**	**Yes**
30	**>Csa-mir-30**	**No**
31	**>Csa-mir-31**	**No**
32	**>Csa-mir-32**	**Yes**
33	**>Csa-mir-33**	**No**
34	**>Csa-mir-34**	**No**
35	**>Csa-mir-35**	**No**
36	**>Csa-mir-36**	**No**
37	**>Csa-mir-37**	**Yes**
38	**>Csa-mir-38**	**No**
39	**>Csa-mir-39**	**No**

Table 3: Precursor miRNA with their secondary structures and their minimum free energy (MFE)

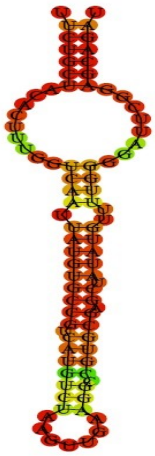
S.No.	Annotated Pre-miRNA	Secondary Structures	MFE(kcal/mol)
1	**>Csa-mir-3**		**-21.60**
2	**>Csa-mir-4**		**-22.70**

3	**>Csa-mir-5**		**-25.00**
4	**>Csa-mir-6**		**-25.00**
5	**>Csa-mir-8**		**-14.50**

6	**>Csa-mir-13**		**-14.50**
7	**>Csa-mir-14**		**-26.30**
8	**>Csa-mir-15**		**-27.20**

9	**>Csa-mir-16**		**-19.40**
10	**>Csa-mir-17**		**-17.70**
11	**>Csa-mir-19**		**-14.70**
12	**>Csa-mir-20**		**-22.90**

13	**>Csa-mir-21**		**-25.20**
14	**>Csa-mir-22**		**-24.40**
15	**>Csa-mir-23**		**-21.60**
16	**>Csa-mir-24**		**-20.60**

17	**>Csa-mir-26**		**-17.70**
18	**>Csa-mir-27**		**-18.20**
19	**>Csa-mir-29**		**-20.00**
20	**>Csa-mir-32**		**-24.60**

21	**>Csa-mir-37**		**-22.50**

Table 4: Pre-miRNA and their mature miRNAs with their nucleotide sequences, position and lengths

S.No.	Annotated Pre-miRNA	Annotated Names Of Mature miRNA	Mature miRNA Nucleotide Sequences	Position	Length
1	>Csa-mir-3	5'Stem:>Csa-miR-3-1 3'Stem:>Csa-miR-3-2	5'Stem:CAUCAACGUAGAGGCCGUAAGG 3'Stem:UUUUGGGUGUAAAGGAUUCCGA	21 58	22 22
2	>Csa-mir-4	5'Stem:>Csa-miR-4-1 3'Stem:>Csa-miR-4-2	5'Stem:AAACUCUCGAUUGUCUAGACUC 3'Stem:UGCGGCAGGACCUCGUCUUAGA	15 54	22 22
3	>Csa-mir-5	5'Stem:>Csa-miR-5-1 3'Stem:>Csa-miR-5-2	5'Stem:UAGACUUCGGAGGAAGUUGGGU 3'Stem:UGGGUCACACAUUACCUCCGCG	42 59	22 22
4	>Csa-mir-6	5'Stem:>Csa-miR-6-1 3'Stem:>Csa-miR-6-2	5'Stem:UAGACUUCGGAGGAAGUUGGGU 3'Stem:UUGGGUCACACAUUACCUCCGC	32 48	22 22
5	>Csa-mir-8	5'Stem:>Csa-miR-8-1 3'Stem:>Csa-miR-8-2	5'Stem:UGGAGGUUAUGAUAUGGGCUUU 3'Stem:UCACGGAACCACUAUUUUGAAG	8 56	22 22
6	>Csa-mir-13	5'Stem:>Csa-miR-13-1 3'Stem:>Csa-miR-13-2	5'Stem:GAAGAGAUUGCUAUGAGGUGUU 3'Stem:AACAGUUCAAGGUUAUCCUAGG	11 57	22 22
7	>Csa-mir-14	5'Stem:>Csa-miR-14-1 3'Stem:>Csa-miR-14-2	5'Stem:AGAAAGCGUGGAUGGAACAGUU 3'Stem:GUGUUCUAUCCGCGAAAUCAUC	22 58	22 22
8	>Csa-mir-15	5'Stem:>Csa-miR-15-1 3'Stem:>Csa-miR-15-2	5'Stem:AUAAGAAAGCGUGGAUGGAACA 3'Stem:UAUCCGCGAAAUCAUCUACCAU	9 54	22 22
9	>Csa-mir-16	5'Stem:>Csa-miR-16-1 3'Stem:>Csa-miR-16-2	5'Stem:AGUGGUUUGCCGCGUUGACUCG 3'Stem:UGACUCGUCCGCUGCGUGUGUU	45 60	22 22
10	>Csa-mir-17	5'Stem:>Csa-miR-17-1 3'Stem:>Csa-miR-17-2	5'Stem:CGUGUGUUUUUCUCCAGUGUUG 3'Stem:UUGUUCACGCACUAUUCCCGAC	34 53	22 22
11	>Csa-mir-19	5'Stem:>Csa-miR-19-1 3'Stem:>Csa-miR-19-2	5'Stem:AGACCCCGCGAGGAAAAAGAAU 3'Stem:UCUCCACCUUCGUGACUUUUAA	19 53	22 22
12	>Csa-mir-20	5'Stem:>Csa-miR-20-1 3'Stem:>Csa-miR-20-2	5'Stem:CUGUUACCGAUGGGAAGAUUUU 3'Stem:CGAGAAGCUUGCUGAGAAGCUU	16 53	22 22
13	>Csa-mir-21	5'Stem:>Csa-miR-21-1 3'Stem:>Csa-miR-21-2	5'Stem:CACAACCCGUGAGUGAGGUAUC 3'Stem:AACGCCUGAUGAUACUGCUGAU	6 52	22 22
14	>Csa-mir-22	5'Stem:>Csa-miR-22-1 3'Stem:>Csa-miR-22-2	5'Stem:AUGUUUGUGGAAGGGAGCGAGA 3'Stem:CGACUCCCUAUCAGCUCAGACA	22 56	22 22
15	>Csa-mir-23	5'Stem:>Csa-miR-23-1 3'Stem:>Csa-miR-23-2	5'Stem:GCUGAUGUUUGUGGAAGGGAGC 3'Stem:CGACUCCCUAUCAGCUCAGACA	8 46	22 22
16	>Csa-mir-24	5'Stem:>Csa-miR-24-1 3'Stem:>Csa-miR-24-2	5'Stem:UUUGUGGAAGGGAGCGAGAGGU 3'Stem:CGACUCCCUAUCAGCUCAGACA	5 36	22 22
17	>Csa-mir-26	5'Stem:>Csa-miR-26-1 3'Stem:>Csa-miR-26-2	5'Stem:AACAGCCGAUUCUGUCCUACUU 3'Stem:UAGUAGGGUUUUGGUUGACGAG	15 54	22 22
18	>Csa-mir-27	5'Stem:>Csa-miR-27-1 3'Stem:>Csa-miR-27-2	5'Stem:UUAGUAGGGUUUUGGUUGACGA 3'Stem:CUUUGGUCAAUUAUGUGCCGUC	13 50	22 22
19	>Csa-mir-29	5'Stem:>Csa-miR-29-1 3'Stem:>Csa-miR-29-2	5'Stem:UUAUGUGCCGUCAUGUCUAAGU 3'Stem:GCCGUGCGAGCUAUAUGUUUUG	20 47	22 22
20	>Csa-mir-32	5'Stem:>Csa-miR-32-1 3'Stem:>Csa-miR-32-2	5'Stem:AACGGCGAUUUAAUCGCCGAAU 3'Stem:GAAUGUGUUGCUCGUGCUUAGC	37 55	22 22
21	>Csa-mir-37	5'Stem:>Csa-miR-37-1 3'Stem:>Csa-miR-37-2	5'Stem:UAAACACAUUGUGUGGUGAACG 3'Stem:UGAACGGGUUGUCCAUCCAGCU	36 52	22 22

Table 5: Mature miRNA and their Targets

S.No	Annotated miRNA	Target Acc.	Expec-tation (e)	Target Accessi-bility (UPE)	Alignment	Inhibition	Multi-plicity
1	>Csa-miR-3-1	Csa1M004980.1	3.0	22.814	miRNA 22 GGAAUGCCGGAGAUGCAACUA C 1 ..: :.::.:::::.:::::.:: 1528 UUUGAUGGUCUCUAUGUUGGU G 1549 Target	Cleavage	1
		Csa1M004980.2	3.0	22.814	miRNA 22 GGAAUGCCGGAGAUGCAACUA C 1 ..: :.::.:::::.:::::.:: 1039 UUUGAUGGUCUCUAUGUUGGU G 1060 Target	Cleavage	1
		Csa7M232590.1	3.0	16.828	miRNA 22 GGAAUGCCGGAGAUGCAACUA C 1 .:::::::::.::: .::::::: 152 UCUUACGGCUUCU-UGUUGAUG 172 Target	Translation	1
	>Csa-miR-3-2	Csa2M379940.1	1.5	13.562	miRNA 22 AGCCUUAGGAAAUGUGGGUUU U 1 :::: ::.::::::::::::::: 753 UCGGCAUUCUUUACACCCAAAA 774 Target	Cleavage	1
		Csa7M447020.2	2.0	17.696	miRNA 21 GCCUUAGGAAAUGUGGGUUUU 1 .:::::: ::::::.::::.: 372 UGGAAUCGUUUACAUCCAAGA 392 Target	Cleavage	1
		Csa7M447020.1	2.0	17.696	miRNA 21 GCCUUAGGAAAUGUGGGUUUU 1 .:::::: ::::::.::::.: 654 UGGAAUCGUUUACAUCCAAGA 674 Target	Cleavage	1
		Csa1M009890.1	3.0	17.59	miRNA 19 CUUAGGAAAUG-UGGGUUUU 1 :::::::::::: ::.:::::. 809 GAAUCCUUUACUACUCAAAG 828	Translation	1

					Target		
2	>Csa-miR-4-1	Csa5M478610.1	3.0	24.409	miRNA 22 CUCAGAUCUGUUAGCUCUCAAA 1 :.:::::::.::::. .:.:::: 151 GGGUCUAGGCAAUUCGGGGUU U 172 Target	Cleavage	1
		Csa6M486820.1	3.0	16.8	miRNA 21 UCAGAUCUGUUAGCUCUCAAA 1 :: :: :::.:::::::.:::: 1539 AGACUUGACGAUCGAGGGUUU 1559 Target	Cleavage	1
	>Csa-miR-4-2	No Result	-	-	No Result	-	-
3	>Csa-miR-5-1	Csa5M650430.1	3.0	8.307	miRNA 22 UGGGUUGAAGGAGGCUUCAGA U 1 :.:::::::..::::::::. : 713 AUCCAACUUUUUCCGAAGUUCA 734 Target	Cleavage	1
		Csa4M567200.1	3.0	21.566	miRNA 21 GGGUUGAAGGAGGCUUCAGAU 1 :.:::::::.::::::: ::. 2284 CUCAACUUCUUCCGAAGGCUG 2304 Target	Cleavage	1
		Csa3M745000.1 Csa3M110600.1	3.0 3.0	14.873 24.517	miRNA 21 GGGUUGAAGGAGGCUUCAGAU 1 .:::::::.::: ::::::.: 386 UCCAACUUUCUCAGAAGUUUC 406 Target miRNA 21 GGGUUGAAGGAGGCUUCAGAU 1 .:: :::.:::::::::.:: 304 UCCCUCUUUCUCCGAAGUUUA 324 Target	Translation Cleavage	1 1
	>Csa-miR-5-2	No Result	-	-	No Result	-	-
4	>Csa-miR-6-1	Csa5M650430.1	3.0	8.307	miRNA 22 UGGGUUGAAGGAGGCUUCAGA U 1 :.:::::::..::::::::. :	Cleavage	1

					713 AUCCAACUUUUUCCGAAGUUCA 734 Target		
		Csa4M567200.1	3.0	21.566	miRNA 21 GGGUUGAAGGAGGCUUCAGAU 1 :.::::::::.::::::: ::. 2284 CUCAACUUCUUCCGAAGGCUG 2304 Target	Cleavage	1
		Csa3M745000.1	3.0	14.873	miRNA 21 GGGUUGAAGGAGGCUUCAGAU 1 .::::::::.::: ::::::.: 386 UCCAACUUUCUCAGAAGUUUC 406 Target	Translation	1
		Csa3M110600.1	3.0	24.517	miRNA 21 GGGUUGAAGGAGGCUUCAGAU 1 .:: :::.::::::::::.:: 304 UCCCUCUUUCUCCGAAGUUUA 324 Target	Cleavage	1
	>Csa-miR-6-2	Csa4M051550.1	3.0	16.039	miRNA 20 CCUCCAUUACACACUGGGUU 1 :::::::::::: :::..: 1150 GGAGGUAAUGUGAGACUUAU 1169 Target	Cleavage	1
5	>Csa-miR-8-1	Csa5M322500.1	3.0	16.741	miRNA 22 UUUCGGGUAUAGUAUUGGAGG U 1 : : ::::::: ::.::.::::: 677 ACACCCCAUAUGAUGACUUCCA 698 Target	Translation	1
		Csa1M423150.1	3.0	13.507	miRNA 20 UCGGGUAUAGUAUUGGAGGU 1 : .:::::::::: :.:::::: 1463 ACUCCAUAUCAUCAUCUCCA 1482 Target	Cleavage	1
	>Csa-miR-8-2	No Result	-	-	No Result	-	-
6	>Csa-miR-13-1	Csa7M419590.1	3.0	22.81	miRNA 22 UUGUGGAGUAUCGUUAGAGAA G 1 .: :.::::::::.: ::::::: 1484 GAGAUCUCAUAGUAUUCUCUUC 1505 Target	Cleavage	1

	>Csa-miR-13-2	**Csa5M171670.1**	**2.5**	**17.21**	**miRNA 22 GGAUCCUAUUGGAACUUGACA A 1 :: .:::::: :::::::::: 1274 CCAGGGAUAAACUUGAACUGU U 1295 Target**	**Cleavage**	**1**
7	**>Csa-miR-14-1**	**Csa4M050150.1**	**2.5**	**16.652**	**miRNA 20 GACAAGGUAGGUGCGAAAGA 1 ::: :.::::::: ::::::: 1244 CUGAUUCAUCCAAGCUUUCU 1263 Target**	**Cleavage**	**1**
		Csa3M815450.1	**3.0**	**15.377**	**miRNA 20 GACAAGGUAGGUGCGAAAGA 1 :: ::...:::::.::::::: 184 CUUUUUUGUCCAUGCUUUCU 203 Target**	**Cleavage**	**1**
	>Csa-miR-14-2	**Csa7M420730.1**	**3.0**	**16.688**	**miRNA 21 UGACAAGGUAGGUGCGAAAGA 1 .::::::.:: .: :::::::: 190 GCUGUUUCACUCUCGCUUUCU 210 Target**	**Translation**	**1**
		Csa1M056950.1	**3.0**	**16.929**	**miRNA 20 GACAAGGUAGGUGCGAAAGA 1 ::::::..:: :: ::::::: 271 CUGUUUUAUGCAAGCUUUCU 290 Target**	**Translation**	**1**
		No Result	**-**	**-**	**No Result**	**-**	**-**
8	**>Csa-miR-15-1**	**Csa6M523470.1**	**3.0**	**16.916**	**miRNA 22 ACAAGGUAGGUGCGAAAGAAU A 1 :::::::.::: ::. ::::::: 137 UGUUCCGUCCUCGUAUUCUUAU 158 Target**	**Cleavage**	**1**
		Csa6M004600.1	**3.0**	**24.08**	**miRNA 21 CAAGGUAGGUGCGAAAGAAUA 1 ::::.: :::.:: ::::::: 433 GUUCUAACCAUGCCUUCUUAU 453 Target**	**Cleavage**	**1**

	>Csa-miR-15-2	Csa3M017280.1	3.0	14.486	miRNA 22 UACCAUCUACUAAAGCGCCUAU 1 ::: : ::::::::::.::::. 991AUGCUCGAUGAUUUCGUGG AUG 1012 Target	Cleavage	1
		Csa4M642510.1	3.0	19.119	miRNA 20 CCAUCUACUAAAGCGCCUAU 1 :: :::::::: .:.:::::: 84 GGAAGAUGAUUAUGUGGAUA 103 Target	Translation	1
9	>Csa-miR-16-1	Csa7M307410.1	3.0	15.784	miRNA 22 GCUCAGUUGCGCCGUUUGGUG A 1 : ::::::::: ::.::: ::: 370 CAAGUCAACGCAGCGAACAACU 391 Target	Translation	1
	>Csa-miR-16-2	No Result	-	-	No Result	-	-
10	>Csa-miR-17-1	Csa4M639920.1	1.5	12.171	miRNA 22 GUUGUGACCUCUUUUUGUGUG C 1 ::::::::::::::...::: 1246 CAACACUGGAGAAAAAUGUAC G 1267 Target	Cleavage	1
		Csa3M881060.1	2.5	20.775	miRNA 22 GUUGUGACCUCUUUUUGUGUG C 1 ::: .:::::::::.:::.::: 392 CAAGGCUGGAGAAAGACAUAC G 413 Target	Cleavage	1
		Csa7M447770.1	3.0	18.101	miRNA 22 GUUGUGACCUCUUUUUGUGUG C 1 :..::::::: :::.:::::: 383 CGGCACUGGACAAAGACACAC U 404 Target	Cleavage	1
		Csa1M025100.1	3.0	24.53	miRNA 22 GUUGUGACCUCUUUUUGUGUG C 1 : : :::::. ::::::::::.: 241 CCAGACUGGGCAAAAACACAU G 262 Target	Cleavage	1
	>Csa-miR-17-2	No Result	-	-	No Result	-	-
11	>Csa-miR-19-1	No Result	-	-	No Result	-	-

	>Csa-miR-19-2	Csa3M902230.1	1.5	10.917	miRNA 20 UUUUCAGUGCUUCCACCUCU 1 :: :::.::::::::::::: 2716 AAUAGUUACGAAGGUGGAGA 2735 Target	Cleavage	1
		Csa6M486680.1	2.0	22.664	miRNA 22 AAUUUUCAGUGCUUCCACCUCU 1 : :::.::::.:::::::::: 41 UGAAAGGUCAUGAAGGUGGAG U 62 Target	Cleavage	1
		Csa1M042550.1	2.5	16.047	miRNA 20 UUUUCAGUGCUUCCACCUCU 1 ::.::: : :::::::::::: 2032 AAGAGUGAAGAAGGUGGAGA 2051 Target	Cleavage	1
		Csa5M642160.1	2.5	17.133	miRNA 20 UUUUCAGUGCUUCCACCUCU 1 :::: ::::: .::::::::: 1065 AAAAAUCACGUGGGUGGAGA 1084 Target	Translation	1
		Csa6M001750.1	3.0	19.357	miRNA 20 UUUUCAGUGCUUCCACCUCU 1 ..:::::..:::.::::::::. 291 GGAAGUUGCGAGGGUGGAGG 310 Target	Cleavage	1
		Csa2M407830.1	3.0	14.038	miRNA 20 UUUUCAGUGCUUCCACCUCU 1 ..:.:::::::..::::::::. 415 GGAGGUCACGGGGGUGGAGG 434 Target	Cleavage	1
		Csa1M568570.2	3.0	18.671	miRNA 22 AAUUUUCAGUGCUUCCACCUCU 1 : .:. :::::.::::::::.::: 1301 UCGAGUGUCAUGAAGGUGGGG A 1322 Target	Cleavage	1

		Csa1M568570.1	**3.0**	**18.671**	**miRNA 22 AAUUUUCAGUGCUUCCACCUCU 1 : .:. ::::.:::::::.::: 1286 UCGAGUGUCAUGAAGGUGGGG A 1307 Target**	**Cleavage**	**1**
		Csa5M290170.1	**3.0**	**6.909**	**miRNA 20 UUUUCAGUGCUUCCACCUCU 1 .::::: ..::.::::::::: 1056 GAAAGUAGUGAGGGUGGAGA 1075 Target**	**Cleavage**	**1**
12	**>Csa-miR-20-1**	**Csa5M613600.1**	**2.5**	**13.12**	**miRNA 21 UUUAGAAGGGUAGCCAUUGUC 1 :::::::::: ::: ::::: 83 AAAUCUUCCCAACGGCAACAG 103 Target**	**Translation**	**1**
	>Csa-miR-20-2	**Csa6M366430.1**	**3.0**	**6.949**	**miRNA 22 UUCGAAGAGUCGUUCGAAGAG C 1 ::::::: :: ::: ::::::: 190 AAGCUUCACACCAAACUUCUCG 211 Target**	**Cleavage**	**1**
		Csa3M481250.1	**3.0**	**24.668**	**miRNA 21 UCGAAGAGUCGUUCGAAGAGC 1 .:.::.:.: ::::::.::: 816 GGUUUUUUAUCAAGCUUUUCG 836 Target**	**Cleavage**	**1**
		Csa1M004270.1	**3.0**	**21.951**	**miRNA 21 UCGAAGAGUCGUUCGAAGAGC 1 : :::::.:::: ::::.::: 928 AUCUUCUUAGCACGCUUUUCG 948 Target**	**Translation**	**1**
		Csa1M715740.1	**3.0**	**17.707**	**miRNA 20 CGAAGAGUCGUUCGAAGAGC 1 :::::: :::::::: .::: 433 GCUUCUGAGCAAGCUGUUCG 452 Target**	**Cleavage**	**1**
13	**>Csa-miR-21-1**	**Csa3M912950.1**	**3.0**	**16.814**	**miRNA 20 AUGGAGUGAGUGCCCAACAC 1 ::::.:::: .::::::::**	**Translation**	**1**

					253 UACCUUACUC-UGGGUUGUG 271 Target		
	>Csa-miR-21-2	Csa2M000680.1	3.0	13.666	miRNA 21 AGUCGUCAUAGUAGUCCGCAA 1 ::.:: ::::: :::::.::: 1032 UCGGCUGUAUCUUCAGGUGUU 1052 Target	Translation	1
14	>Csa-miR-22-1	Csa6M404250.1	2.0	22.008	miRNA 22 AGAGCGAGGGAAGGUGUUUGU A 1 :::: :::.:::.::::::::: 640 UCUCUCUCUCUUUCACAAACAU 661 Target	Cleavage	1
		Csa3M893370.1	3.0	14.986	miRNA 21 GAGCGAGGGAAGGUGUUUGUA 1 : ::::::..::::.::::::.: 54 CGCGCUCUUUUCCGCAAACGU 74 Target	Cleavage	1
		Csa4M050270.1	3.0	15.159	miRNA 20 AGCGAGGGAAGGUGUUUGUA 1 :: .::: ::.::::::::: 1727 UCCUUCCAUUUCACAAACAU 1746 Target	Cleavage	1
	>Csa-miR-22-2	Csa4M246400.1	3.0	21.735	miRNA 22 ACAGACUCGACUAUCCCUCAGC 1 ::::::.:.::::. ::::::.: 21 UGUCUGGGUUGAUGAGGAGUU G 42 Target	Cleavage	1
15	>Csa-miR-23-1	Csa5M161910.1	2.5	13.618	miRNA 21 GAGGGAAGGUGUUUGUAGUCG 1 :::::: .:::::::::::: 208 CUCCCUCGUACAAACAUCAGC 228 Target	Cleavage	1
		Csa7M448660.1	3.0	22.108	miRNA 20 AGGGAAGGUGUUUGUAGUCG 1 :.::::::.:..::::::..:: 137 UUCCUUCUAUGAACAUUGGC 156 Target	Cleavage	1

	>Csa-miR-23-2	**Csa4M246400.1**	**3.0**	**21.735**	**miRNA 22 ACAGACUCGACUAUCCCUCAGC 1 ::::::.:.::::. ::::::: 21 UGUCUGGGUUGAUGAGGAGUU G 42 Target**	**Cleavage**	**1**
16	**>Csa-miR-24-1**	**Csa3M560770.1**	**2.0**	**8.91**	**miRNA 20 GAGAGCGAGGGAAGGUGUUU 1 .:::.:.:::.::::::::: 1787 UUCUUGUUCCUUUCCACAAA 1806 Target**	**Cleavage**	**1**
		Csa6M404250.1	**2.0**	**22.611**	**miRNA 20 GAGAGCGAGGGAAGGUGUUU 1 ::::: :::.:::.::::::: 639 CUCUCUCUCUCUUUCACAAA 658 Target**	**Cleavage**	**1**
		Csa7M062810.1	**2.5**	**11.061**	**miRNA 22 UGGAGAGCGAGGGAAGGUGUU U 1 :.:::: :::::.:: ::::::: 778 AUCUCUGGCUCUCUACCACAAA 799 Target**	**Cleavage**	**1**
		Csa3M563310.1	**2.5**	**11.478**	**miRNA 22 UGGAGAGCGAGGGAAGGUGUU U 1 : .:::.:.:::.::::::::. 1740 AAUUCUUGUUCCUUUCCACAAG 1761 Target**	**Cleavage**	**1**
		Csa3M824910.1	**2.5**	**9.143**	**miRNA 20 GAGAGCGAGGGAAGGUGUUU 1 .:::.:.:::.::::::::. 1751 UUCUUGUUCCUUUCCACAAG 1770 Target**	**Cleavage**	**1**
		Csa3M824910.2	**2.5**	**9.143**	**miRNA 20 GAGAGCGAGGGAAGGUGUUU 1 .:::.:.:::.::::::::. 1391 UUCUUGUUCCUUUCCACAAG 1410 Target**	**Cleavage**	**1**
		Csa3M818260.1	**2.5**	**0.795**	**miRNA 21 GGAGAGCGAGGGAAGGUGUUU 1 .::::. .::::::::.::::: 69 UCUCUUCUUCCCUUCUACAAA**	**Cleavage**	**1**

					89 **Target**		
		Csa3M145760.1	**3.0**	**24.795**	**miRNA** **22** **UGGAGAGCGAGGGAAGGUGUU** **U 1** **:.::.:.::::.:::: ::::** **540** **AUCUUUUGCUCCUUUCCCCAAA** **561** **Target**	**Cleavage**	**1**
		Csa6M501860.1	**3.0**	**19.797**	**miRNA** **22** **UGGAGAGCGAGGGAAGGUGUU** **U 1** **: :::::::::..::::::. ::** **105** **AGCUCUCGCUCUUUUCCAUCAA** **126** **Target**	**Cleavage**	**1**
		Csa3M883010.1	**3.0**	**3.777**	**miRNA** **22** **UGGAGAGCGAGGGAAGGUGUU** **U 1** **: .::::::::.:::::: :.::** **340** **AAUUCUCGCUUCCUUCCCCGAA** **361** **Target**	**Cleavage**	**1**
		Csa6M128640.1	**3.0**	**14.48**	**miRNA** **22** **UGGAGAGCGAGGGAAGGUGUU** **U 1** **:.::. ::::.:: ::::::::** **33** **AUCUUGCGCUUCCCUCCACAAA** **54** **Target**	**Translation**	**1**
		Csa2M061570.1	**3.0**	**19.851**	**miRNA** **21** **GGAGAGCGAGGGAAGGUGUUU** **1** **.:::::: :.:::: ::::::** **2008** **UCUCUCGAUUCCUUGCACAAA** **2028** **Target**	**Cleavage**	**1**
		Csa6M062290.1	**3.0**	**7.466**	**miRNA** **21** **GGAGAGCGAGGGAAGGUGUUU** **1** **:::: : ::.:::::::::.::** **355** **CCUCACACUUCCUUCCACGAA** **375** **Target**	**Cleavage**	**1**
		Csa6M524040.1	**3.0**	**9.367**	**miRNA** **21** **GGAGAGCGAGGGAAGGUGUUU** **1** **.:::::::.:::: ::: ::::** **307** **UCUCUCGUUCCCCUCCUCAAA** **327**	**Translation**	**1**

					Target		
		Csa4M111580.1	3.0	4.039	miRNA 20 GAGAGCGAGGGAAGGUGUUU 1 ::::: .::::::::.:::: 16 CUCUCCUUCCCUUCUACAAC 35 Target	Cleavage	1
	>Csa-miR-24-2	Csa4M246400.1	3.0	21.735	miRNA 22 ACAGACUCGACUAUCCCUCAGC 1 ::::::.:.::::. ::::::: 21 UGUCUGGGUUGAUGAGGAGUU G 42 Target	Cleavage	1
17	>Csa-miR-26-1	No Result	-	-	No Result	-	-
	>Csa-miR-26-2	Csa2M375180.1	3.0	18.91	miRNA 20 GCAGUUGGUUUUGGGAUGAU 1 .:::::: ::::.:::.::. 3435 UGUCAACAAAAAUCCUGCUG 3454 Target	Cleavage	1
18	>Csa-miR-27-1	Csa2M375180.1	2.5	18.944	miRNA 21 GCAGUUGGUUUUGGGAUGAUU 1 .:::::: ::::.:::.::.: 3435 UGUCAACAAAAAUCCUGCUGA 3455 Target	Cleavage	1
		Csa4M571220.1	2.5	20.832	miRNA 20 CAGUUGGUUUUGGGAUGAUU 1 ::: :::::::::::: ::: 441 GUCCACCAAAACCCUAAUAA 460 Target	Cleavage	1
		Csa3M146500.1	3.0	7.1	miRNA 22 AGCAGUUGGUUUUGGGAUGAU U 1 :.::: :...:::::::.::: 67 UUGUCCAUUGAAACCCUAUUAA 88 Target	Cleavage	1
		Csa1M171050.1	3.0	13.688	miRNA 22 AGCAGUUGGUUUUGGGAUGAU U 1 :. ::::::::..::.::.::: 848 UUUUCAACCAAGGCCUUAUUAA	Cleavage	1
		Csa3M104900.1	3.0	19.007	869	Cleavage	1

					Target miRNA 20 CAGUUGGUUUUGGGAUGAUU 1 : ..:.:::::::::::::. 118 GCUGAUCAAAACCCUACUAG 137 Target		
		CsaUNM024980.1	3.0	13.812	miRNA 20 CAGUUGGUUUUGGGAUGAUU 1 ::::.:::: :.:.::::::. 1653 GUCAGCCAAUAUCUUACUAG 1672 Target	Translation	1
		Csa6M109120.1	3.0	4.69	miRNA 21 GCAGUUGGUU-UUGGGAUGAUU 1 : :.::::::: ::::.::::::: 873 CCUUAACCAACAACCUUACUAA 894 Target	Cleavage	1
	Csa-miR-27-2	No Result	-	-	No Result	-	-
19	>Csa-miR-29-1	Csa5M608070.1	3.0	18.23	miRNA 21 GAAUCUGUACUGCCGUGUAUU 1 .:: :::::::.: :::::::.: 933 UUUCGACAUGGCAGCACAUGA 953 Target	Translation	1
	>Csa-miR-29-2	No Result	-	-	No Result	-	
20	>Csa-miR-32-1	Csa1M530130.1	3.0	21.158	miRNA 20 AGCCGCUAAUUUAGCGGCAA 1 .:::::::::.:.:.::::: 451 AUGGCGAUUAAGUUGUCGUU 470 Target	Cleavage	1
		Csa5M148720.1	3.0	17.204	miRNA 20 AGCCGCUAAUUUAGCGGCAA 1 ::::.:.::: : ::::::: 71 UCGGUGGUUACAACGCCGUU 90 Target	Translation	1
	>Csa-miR-32-2	Csa1M540370.1	3.0	15.987	miRNA 21 GAUUCGUGCUCGUUGUGUAAG 1 .::.:::.:::::: .::::: 746 UUAGGCAUGAGCAAAGCAUUC 766 Target	Cleavage	1

21	**>Csa-miR-37-1**	**Csa1M397140.1**	**3.0**	**17.409**	**miRNA 20 AAGUGGUGUGUUACACAAAU 1 :::::.::: :::::: ::: 586 UUCACUACAAAAUGUGAUUA 605 Target**	**Translation**	**1**
	>Csa-miR-37-2	**Csa2M360760.1**	**3.0**	**17.705**	**miRNA 20 GACCUACCUGUUGGGCAAGU 1 :::.::::::.: ::::::: 300 AUGGGUGGACGAACCGUUCA 319 Target**	**Cleavage**	**1**
		Csa2M074120.1	**3.0**	**13.478**	**miRNA 20 GACCUACCUGUUGGGCAAGU 1 ::: :::::::::.::::: 1759 AUGGUUGGACAACUUGUUCA 1778 Target**	**Cleavage**	**1**
		Csa1M042120.1	**3.0**	**22.978**	**miRNA 20 GACCUACCUGUUGGGCAAGU 1 .::::::::. : :::::::: 824 UUGGAUGGGAACCCCGUUCA 843 Target**	**Translation**	**1**