

Table S4. Potential target genes for individual plant miRNAs.

Target gene of plant miRNAs: TOR

MIRNA	Position in target gene	Structure of binding site	minimum of free energy
ath-miR156a-5p	1687	<pre> U UGA UACA A-- GUGC UCAUUUUCU UCUG : : CACG AGUGAGAGA AGAC - --- ---- AGU </pre>	-22
ath-miR160a-5p	6109	<pre> C U C AGUUUAU U A G UGGC GUAC GGGA G CCGGG CA : : ACCG UAUG CCCU C GGUCC GU - - U - - - - - - - - - </pre>	-27.5
ath-miR162a-3p	3678	<pre> G AUG UA A U CUGGA GC AGA GUUUGUCGA : GACCU CG UCU CAAAUAGCU - A-- -- C - </pre>	-26.4
osa-miR166g-3p	5448	<pre> A UAU AUUG A GAGG AUGAAGCU UCGA : : CUCC UACUUCGG GGCU - U-- ACCA - </pre>	-25
ath-miR167a-5p	3738	<pre> A G UCUU A-- AGAUCAUGUU GGC GC : UCUAGUACGA CCG CG A - U--- AAGU </pre>	-26.4
ath-miR168a-5p	1547	<pre> A -- UGGACU A- UCCUGG UGCACCA GC : AGGGCU ACGUGGU CG A GG U---- CU </pre>	-26.6

ath-miR172c	5164	G UA GAA U A CUGCAGC CA CA GAUUCU GACGUCG GU GU CUAAGA - UA A-- U -	-24.3
ath-miR390a-5p	5148	U AUUA G C A GUGCUAUCUU U CUG AGCU : : CGCGAUAGGG A GAC UCGA C ---- G - A	-26.4
ath-miR824-5p	6380	U A A - AUA A UCC CU UC CACAA GUGGUUA : : AGG GA AG GUGUU UACCAGAU - - - A --- -	-23.6

Target gene of plant miRNAs: IRS

MIRNA	Position in target gene	Structure of binding site	minimum of free energy
ath-miR156a-5p	1765	A G CCGAUGA C UG UCAUUUUC UCUGUCG : : AC AGUGAGAG AGACAGU C G A----- -	-23
ath-miR157a-5p	4706	C GCG CCGUACG - C- GUGCUC C UAUCU CUGUU : CACGAG G AUAGA GACAG - A-- ----- A UU	-21.3
ath-miR158a-3p	860	G GG GGA --- U GCU UG CUGC UGGGA : CGA AC GAUG ACCCU A A- A-- UAA -	-20.3
ath-miR160a-5p	859	G - GU CU A- GGC UG GGGG GCUGGG	-27.9

		::	
		CCG AU CCCU CGGUCC	
		A U GU -- GU	
ath-miR162a-3p	1380	A A U GAAAAUG A UGGAUG UGG GGU UGUUGG :: :: : ACCUAC GUC CCA AUAGCU G - U A----- -	-22.9
ath-miR166a-3p	2497	C U - AGAA A A- GG GGAA GAAGC GG CC CC CCUU CUUCG CC GG - - A GA-- A CU	-23.5
osa-miR166g-3p	1589	-U UC- U - A- GGA GAG CCUGG CC : CCU UUC GGACC GG CU UAC - A CU	-23.6
ath-miR167a-5p	841	-C U ACCGG G-- GGUCG UGCUUGU GGCU :: : : : CUAGU ACGACCG UCGA AU - ----- AGU	-25.9
ath-miR168a-5p	1881	C - GAGACGAU UG G UUCC ACCUG U CAAGCGA : AGGG UGGAC G GUUCGCU A C ----- UG -	-27.9
ath-miR172a	1340	-C GU GU CAC G G GCGU UC GGAUUCU : : C CGUA AG UCUAAGA UA GU GU U-- -	-23.7
ath-miR172c	1340	-C GU GU CAC G G GCGU UC GGAUUCU : : C CGUA AG UCUAAGA	-23.7

		GA GU GU U-- -	
ath-miR390a-5p	2905	-C - U CC A- CGC AUC CCUCC GAGC GCG UAG GGAGG CUCG CC A - A- AA	-27
ath-miR397a	1132	G GUUUU A- G AUCA ACGCUGUGC AAUGG : : UAGU UGCGACGUG UUACU G ----- AG -	-23.6
osa-miR528-5p	1337	U GG ACGGA G UCC UGCGUGUCC UUCU : : : : AGG ACGUACGGGG AAGG G AG ----- U	-26.5
ath-miR824-5p	1747	A GCAUAA - A- UCCUUC UCACA AUGGUC : GGGAAG AGUGU UACCAG A ----- U AU	-25.8
ath-miR827	3725	---A AUA - A-- UGU UGAUGG CAUC ACA ACUACC GUAG UCAA --- A AUU	-20.3
ath-miR845a	842	G UUGC C G GUCG UGGUA CGGGGCUG : : : : : UAGU ACCAU GUCUCGGC G UA-- A -	-26.1

Target gene of plant miRNAs: EGFR

MIRNA	Position in target gene	Structure of binding site	minimum of free energy
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ath-miR156a-5p	4761	-A - GA G- GUUCGCUC CUU CUGU : : CGAGUGAG GAA GACA CA A -- GU	-23
ath-miR157a-5p	4426	---A GAUUU C UCUCUGUCUUC UCAA : AGAGAUAGAAG AGUU CACG AC--- -	-23.5
ath-miR158a-3p	2209	G UGAAAC AAGGUG U UGCUUU GUUUA CA UUUGGG ACGAAA CAGAUGU AAACCC - - - - - - - - - - U	-21.5
ath-miR160a-5p	194	A - U AG C GGC UGC GGGGAG GGGC : CCG AUG UCCCUC UCCG A U - GG U	-30.8
ath-miR162a-3p	2897	U U-- ACGCCGA G UGGAUGC GG GUCGA ACCUACG CC UAGCU G UCU AAA---- -	-22.8
ath-miR166a-3p	201	U A GG AGAACU A A GGGGAG G GCCUG GUC GA CCCCUU C CGGAC CAG CU - A UU - - - - - G -	-30.2
osa-miR166g-3p	201	U A GG AGAACU A A GGGGAG G GCCUG GUC GA : : CUCCUU C CGGAC CAG CU - A UU - - - - - G -	-27.2
ath-miR167a-5p	253	---C G GGCAGGU G UCA UGCUGGCA GCUUCG	-27.3

				:	
			AGU ACGACCGU	CGAAGU	
			AUCU -	-----	-
			A GAUAUCU U AG U		
			UCCUGGCC UGC AUCA GGCGA		
ath-miR168a-5p	2968		: :	: :	-29.9
			AGGGCUGG ACG UGGU UCGCU		
			A ----- - -- -		
			U C U UAU G		
			UGCGG CAUCAUCA G UUCU		
ath-miR172a	2020		:		-26.2
			ACGUC GUAGUAGU C AAGA		
			U - U U-- -		
			U C U UAU G		
			UGCGG CAUCAUCA G UUCU		
ath-miR172c	2020		:		-26.4
			ACGUC GUAGUAGU C AAGA		
			G - U U-- -		
			A UCGGG AA GCGG G-		
			GGUGCU CCC UCC GAGU		
ath-miR390a-5p	270		:	:	-27.9
			CCGCGA GGG AGG CUCG		
			- UA--- -- A--- AA		
			A G AUU C--		
			CAUCGA GC UGUUAUCGA		
ath-miR397a	5603		:	: : :	-23.5
			GUAGUU CG ACGUGAGUU		
			- G --- ACU		
			G GUUGAG AUG C A--		
			GAGUU GU GCG GAAUC		
ath-miR403-3p	3263				-20.2
			CUCAA CA CGC CUUAG		
			G A----- --- A AUU		
			-C - AGUA G		
			UUUCUGCAU CC CUUCCG		
osa-miR528-5p	3144		::	:	-27.5
			GGAGACGUA GG GAAGGU		

		GA	C	G---	-	
ath-miR824-5p	2118	C	G C	C	G-	-20.8
		CCCUUC	C CAA	UGG	C	
		GGGAAG	G GUU	ACC	G	
		A	A U	U	A AU	
ath-miR845a	2492	---A	ACA	UU	A	-23.2
		AAUUGGUGU	CAGA	GCC		
		:				
		UUAACCAUA	GUCU	CGG		
		GUAG	---	--	C	

Target gene of plant miRNAs: PDK1

MIRNA	Position in target gene	Structure of binding site	minimum of free energy
ath-miR156a-5p	4978	-C C CUC C U GU CACUCUCU UCU GUCG : : CG GUGAGAGA AGA CAGU CA A --- - -	-25
ath-miR157a-5p	5143	-A A GACGCG U A GC UCUU GUC UUCUGUCGA : : : CG AGAG UAG AAGACAGUU CA - A----- - -	-24.2
ath-miR160a-5p	4947	G AAA C G U GGCG ACGGGG GC CAGGC : : CCGU UGUCCC CG GUCCG A A-- U - U	-33
ath-miR162a-3p	1617	C GUC CUUAGG G CUGGA CGGAG GUCGA : : GACCU GUCUC UAGCU - AC CAAA-- -	-23.2

ath-miR166a-3p	4798	G GG GG AA UU U GGGGG G G UGGU GG : : -29.9 CCCC C C ACCA CU - UA UU GG GG -
osa-miR166g-3p	4798	G GG GG AA UU U GGGGG G G UGGU GG : : : -26.9 CUCCU C C ACCA CU - UA UU GG GG -
ath-miR167a-5p	240	-C - GAG G U GAUCG GC GG AGCUUC : -26.8 CUAGU CG CC UCGAAG AU A A-- G U
ath-miR168a-5p	896	G G CCCCCUU CUCCAGG G UC CCGGCCUGC CCG AGCGA : : -31.3 AG GGCUGGACG GGU UCGCU A - U----- - -
ath-miR172a	1857	-C A CG G GCA UGUC CGGGAUUC : :: -23.5 CGU GUAG GUUCUAAG UA C UA A
ath-miR172c	1857	-C A CG G GCA UGUC CGGGAUUC : :: -23.5 CGU GUAG GUUCUAAG GA C UA A
ath-miR390a-5p	993	U AG G CAGUC G GGCG AUCCUC U GGCU : -27.3 CCGC UAGGGAG A UCGA - GA G C---- A
ath-miR397a	1010	A U G G-- -24.6 GUCGGC GCU GUGCUCGA

			: :: :: UAGUUG CGA CGUGAGUU G - - ACU	
ath-miR403-3p	2568		A GAAAAUA U U CGAG GCGUG AUCUGG :: GCUC CGCAC UAGAUU - AAACA--- U -	-21.6
osa-miR528-5p	899		-G GGC C-- C CC CUGC CCCCUCG : GG GACG GGGGAAGGU GA A-- UAC -	-29.2
ath-miR824-5p	1701		A GAGGGA UUGG G G UCCC UUCGCA AAUGGU UA : : AGGG GAGUGU UUACCA AU - AA---- ---- G -	-23.7
ath-miR845a	1005		U CGGCUGC C - A CGUCAGU UGGUG UC GAGCC : : : GUAGUUA ACCAU AG CUCGG - ----- - U C	-25.2

Target gene of plant miRNAs: MKP3

MIRNA	Position in target gene	Structure of binding site	minimum of free energy
ath-miR156a-5p	186	-A UACU C G C GCUC GCUCUCU C UGUU : : CGAG UGAGAGA G ACAG CA ---- A - U	-22.9
ath-miR157a-5p	193	C CC G G G G UGCUCUCU GU UUC GU GA : : ACGAGAGA UA AAG CA UU	-24.3

		C	--	G	A	G	-	
ath-miR160a-5p	47	G	C	CA	CU	AGA	C	-27.3
		UGGC	UGCAG	GG	GGCU	AGGC		
			:		: :			
		ACCG	AUGUC	CC	UCGG	UCCG		
		-	U	--	--	---	U	
ath-miR162a-3p	1679	-----A		GACAUUUG		U		-20.6
		GUAGAGG		UAUUGA				
		:		:				
		CGUCUCC		AUAGCU				
		GACCUA		AA-----		-		
ath-miR166a-3p	2250	A	UGC	UUCACU		-	A	-27.1
		GGGAG	UGG	GUCUGG	CCGG			
		:	:	:	:			
		CCCUU	ACU	CGGACC	GGCU			
		C	---	U-----		A	-	
osa-miR166g-3p	2250	A	UGC	UUCACU		-	A	-25.3
		GGGAG	UGG	GUCUGG	CCGG			
		: :	:	:	:			
		UCCUU	ACU	CGGACC	GGCU			
		C	---	U-----		A	-	
ath-miR167a-5p	802	G	-	AGC		GC	G	-26.9
		AGA	CG	UGCUGGCAGU	CA			
			:	:				
		UCU	GU	ACGACCGUCG	GU			
		A	A	---		AA	-	
ath-miR168a-5p	45	-G	G		G	U-		-30.5
		U	UGGCCUGCA	CAGGC				
		:	: :	:				
		G	GCUGGACGU	GUUCG				
		AA	G		G	CU		
ath-miR172a	1719	C	G	-		G--		-24.1
		UGCAG	A	CAUCAGGGU				
				:	:			
		ACGUC	U	GUAGUCUA				
		U	G	A		AGA		

ath-miR172c	1718	<p>C G - G-- CUGCAG A CAUCAGGGU : : GACGUC U GUAGUUCUA - G A AGA</p>	-25.8
ath-miR390a-5p	2641	<p>-----G A UAU G GUCCCUCCU G GCU : UAGGGAGGA C CGA CCGCGA - U-- A</p>	-25.3
ath-miR397a	427	<p>--A A CUCUGUG A UAACGC GCAU UUAGUGA : : : GUUGCG CGUG AGUUACU GUA A ----- -</p>	-22.5
ath-miR403-3p	1830	<p>C G--- GG U CGAGU GUGUGAA UAG : : GCUCA CGCACUU AUU - AACAA AG -</p>	-21.2
osa-miR528-5p	2645	<p>C A- G--- U CUCCU GUAUGCU CCA : : GAGGA CGUACGG GGU - GA GGAA -</p>	-24.3
ath-miR824-5p	1465	<p>A AAGA C C- CU UCA CAGAUGGUC : : GG AGU GUUUACCAG A GAAG - AU</p>	-21.2
ath-miR845a	1694	<p>G ACUCUA U U UAUUGAUUGGUG CAGA CC : : : : GUAGUUAACCAU GUCU GG - A----- C C</p>	-21.1

Target gene of plant miRNAs: PIK3

MIRNA	Position in target gene	Structure of binding site	minimum of free energy
ath-miR167a-5p	346	<pre> --U GUA A- A AUCG GC GCAGCUUCA : UAGU CG CGUCGAAGU AUC A-- AC - </pre>	-23.8
ath-miR172a	1108	<pre> C GU CCA C UGCAG UAUCAUU GAGAUUUU : : : ACGUC GUAGUAG UUCUAAGA U -- --- - </pre>	-23.2
ath-miR390a-5p	4859	<pre> --A C A A- GCU UUCUCC GAGC : CGA AGGGAGG CUCG CCG U A AA </pre>	-26.3
ath-miR397a	2521	<pre> U A A UG U- CGU AACGC UGU UCAAU : : GUA UUGCG ACG AGUUA - G - UG CU </pre>	-22.8
osa-miR528-5p	1659	<pre> U AG -- A - C CUCC CUGCA CC CCU CCA GAGG GACGU GG GGA GGU - A- AC - A - </pre>	-26.5
ath-miR824-5p	5498	<pre> G AUUA C A--- UCUCUUC UACA GUGG : : : AGGGAAG GUGU UACC - A--- U AGAU </pre>	-20.2
ath-miR845a	5244	<pre> --C G C G </pre>	-24.4

CAA UGGUAAUAG GUCG
 ||| |||||:| |:
 GUU ACCAUAGUC CGGC
 GUA A U -

Target gene of plant miRNAs: PI3K

MIRNA	Position in target gene	Structure of binding site	minimum of free energy
ath-miR156a-5p	5375	-G GUCGGA A GCUCAUUUUU UCUGUCA : : CGAGUGAGAG AGACAGU CA A----- -	-27
ath-miR157a-5p	1722	-C CUAUCUC U- GCUCUCUAUCU UCUGUC CGAGAGAUAGA AGACAG CA ----- UU	-31.2
ath-miR158a-3p	6549	U GG AUCUG ACG A UGUU GUC GCGU GGGA : : : ACGA CAG UGUA CCCU - AA A---- AA- -	-20.9
ath-miR160a-5p	4738	G - UCCGU CC A UGGCA GCGGG GGCCA GGCA : : ACCGU UGUCC UCGGU CCGU - A C---- -- -	-31
ath-miR162a-3p	3233	-A C A GC- G G GAUG AGGGG GUCGA : : C CUAC UCUC UAGCU GA - G AAA -	-22.6

ath-miR166a-3p	530	<pre> A AGAAAU A C A- GGGAA UGAAG CUUGG CC : CCCUU ACUUC GGACC GG C ----- - A CU </pre>	-27.4
osa-miR166g-3p	3368	<pre> G ACGA CG-- A GAGGAU GAAGCU CCGA : CUCCUUA CUUCGG GGCU - ----- ACCA - </pre>	-26.2
ath-miR167a-5p	4729	<pre> -C U G GGG C GAUCG UG UGGCAGC UC : CUAGU AC ACCGUCG AG AU - G A-- U </pre>	-28.3
ath-miR168a-5p	4623	<pre> A UU - G UC GGCUUGCAUCGAG GA : : : : AG CUGGACGUGGUUC CU A GG G - </pre>	-32.3
ath-miR172a	6910	<pre> C A A- UGCGGCGUUAUCGA GUU : : : : : : ACGUCGUAGUAGUU UAA U C GA </pre>	-26.1
ath-miR172c	6909	<pre> C A A- CUGCGGCGUUAUCGA GUU : : : : : : GACGUCGUAGUAGUU UAA - C GA </pre>	-27.8
ath-miR390a-5p	927	<pre> U AC- A- GCGCUGUUUCU GAGU : : : CGCGAUAGGGA CUCG C GGA AA </pre>	-26.2
ath-miR397a	3196	<pre> A UG G G UU C GUCG GCUG A UU GAUGA </pre>	-24.6

			: : : :	
			UAGU CGAC U AG UUACU	
			G UG G G -- -	
ath-miR403-3p	2931		A CGAACG - G-- GAGU GUG GUGAAUC CUCA CAC CACUUAG G AA---- G AUU	-22.3
osa-miR528-5p	4333		G CAGAG C G G C UCCUC UG CAUGC U CUUCCA : AGGAG AC GUACG G GAAGGU G ----- - - G -	-28.2
ath-miR824-5p	9317		C UUCUC A C- CCUUUCACGA GUG UC : : : GGGAAGAGUGUU UAC AG A ----- C AU	-24
ath-miR827	6547		-C -- G UUUGUUG GGUCAUCUG : AAACAAC CCAGUAGAU UC UA U	-24.5
ath-miR845a	7744		-U A A- UCGAUUGGUA UCAGGGU : : AGUUAACCAU AGUCUCG GU - GC	-27.9