

AVAILABLE SEED STOCKS

ARABIDOPSIS SEED STOCKS

T-DNA mutant stocks

Seed for all Arabidopsis [T-DNA or point mutant lines](#) are available upon request (cjcarter@d.umn.edu), or from the ABRC via TAIR (arabidopsis.org).

amiRNA mutants (note: all amiRNA seed stocks are currently being bulked for deposition at the ABRC)

Stock name	Gene target	Gene name	Parent vector	Notes
cupin T1	AT1G74820	cupin family protein	pORE-E4 (constitutive promoter)	Reduced presence of median nectaries, large nectar volume
cupin T2	AT1G74820	cupin family protein	pORE-E4 (constitutive promoter)	Reduced presence of median nectaries, large nectar volume
cupin T1-n	AT1G74820	cupin family protein	pPMK1 (nectary-specific SWEET9 promoter)	Reduced median nectaries, large nectar volume
cupin T2-n	AT1G74820	cupin family protein	pPMK1 (nectary-specific SWEET9 promoter)	Reduced median nectaries, large nectar volume
AT1G18720-T1	AT1G18720	Unknown protein	pPMK1 (nectary-specific SWEET9 promoter)	No nectar secretion
AT1G18720-T2	AT1G18720	Unknown protein	pPMK1 (nectary-specific SWEET9 promoter)	No nectar secretion
SWEET9-T1	AT2G39060	SWEET9	pPMK1 (nectary-specific SWEET9 promoter)	<u>Preliminary phenotype</u> : Reduced nectar secretion
SWEET9-T2	AT2G39060	SWEET9	pPMK1 (nectary-specific SWEET9 promoter)	<u>Preliminary phenotype</u> : Reduced nectar secretion
AT5G60760-T1	AT5G60760	P-loop containing nucleoside triphosphate hydrolases superfamily protein	pPMK1 (nectary-specific SWEET9 promoter)	<u>Preliminary phenotype</u> : Increased nectar (10%)
AT5G60760-T2	AT5G60760	P-loop containing nucleoside triphosphate hydrolases superfamily protein	pPMK1 (nectary-specific SWEET9 promoter)	<u>Preliminary phenotype</u> : Increased nectar (10%)

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Mis-expression mutants (note: all misexpression seed stocks are currently being bulked for deposition at the ABRC)

Stock name	Gene	Gene name	Parent vector	Notes
MYB7-OX	AT2G16720	MYB7	pPMK1 (SWEET9 promoter)	MYB7 is normally highly expressed in mature lateral nectaries, low in median and immature lateral nectaries; <u>prelim phenotype</u> : reduced nectar production.
CUPIN-OX	AT1G74820	cupin family protein	pPMK1 (SWEET9 promoter)	AT1G74820 is usually highly expressed in median nectaries, low in lateral nectaries; <u>phenotype</u> : strongly reduced nectar production.
ATOCT1-OX	AT1G73220	ATOCT1 ORGANIC CATION/CARNITINE TRANSPORTER1	pPMK1 (SWEET9 promoter)	ATOCT1 is usually highly expressed in median nectaries, low in lateral nectaries; <u>Prelim phenotype</u> : none observable

Reporter lines

Stock name	Gene	Gene name	Parent vector	Notes
CS9371 (PIN6pro:GUS)	AT1G77110	PIN6		Strong staining in median and lateral nectaries of Stage 14-15 flowers
PIN6pro:PIN6-GFP	AT1G77110	PIN6	pORE-R4	Strong signal in median and lateral nectaries of Stage 14-15 flowers
pin6-1/DR5:GFP	AT1G77110	PIN6	N/A	No DR5 signal in lateral nectaries, strong signal in median nectaries
pin6-1/DR5:GUS	AT1G77110	PIN6	N/A	No DR5 signal in lateral nectaries, strong signal in median nectaries
pin6-2/DR5:GFP	AT1G77110	PIN6	N/A	No DR5 signal in lateral nectaries, strong signal in median nectaries
pin6-1/DR5:GUS	AT1G77110	PIN6	N/A	No DR5 signal in lateral nectaries, strong signal in median nectaries
CUPINpro:GUS	AT1G74820	Cupin-family protein	pORE-R2	Strong staining in mature median nectaries
CUPINpro:CUPIN-GFP	AT1G74820	Cupin-family protein	pORE-R4	Strong signal in mature median nectaries
CWINV4pro:CWINV4-GFP	AT2G36190	CWINV4	pORE-R4	Strong signal in median and lateral nectaries from Stage 12-16
SWEET9:GUS	AT2G39060	SWEET9	pORE-R2	Strong staining in median and lateral nectaries from Stage 12-16

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BRASSICA SEED STOCKS

TILLING mutants obtained from RevGenUK

Gene Name	Brassica gene locus	Arabidopsis ortholog	Plant Name	Mutation
<i>PIN6</i>	Bra015694	AT1G77110	JI32022-A	279R>W
			JI33068-A	126G>R
			JI31975-B	127E>K
			JI31792-A	156A>T
			JI31792-B	156A>T
			JI32852-A	162R>Q
			JI31981-A	166P>L
			JI32736-B	166P>L
			JI31967-B	167G>S
			JI33067-A	170A>T
			JI32362-A	194E>K
			JI32960-B	195T>A
			JI32901-A	201G>D
			JI32454-B	214V>I
			JI31606-B	215P>L
			JI32743-B	239S>F
			JI32757-B	251G>E
			JI31758-B	162R>stop
			JI32506-A	432G>A (splice site)
<i>CWINV4</i>	Bra017257	AT2G36190	JI32925-A	69G>D
			JI32654-A	75T>I
			JI32252-A	98G>R
			JI32970-A	119G>S
			JI32527-B	158S>F
			JI32040-A	213G>E

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			J131928-B	219A>V
			J132694-B	228G>E
			J132807-A	282R>K
			J131935-B	146W>stop
<i>SWEET9</i>	Bra000116	AT2G39060	J131651-A	112G>D
			J131668-A	63G>E
			J131733-B	166P>S
			J131736-B	140A>V
			J131856-B	177A>T
			J132032-B	135G>E
			J132014-A	60L>F
			J132014-B	60L>F
			J132125-A	123L>F
			J132144-A	74S>N
			J132313-A	126P>L
			J132766-A	96R>Q
			J132807-B	63G>E
			J132885-B	611G>GA (splice site)
			J132886-B	184G>S
			J132947-B	914G>GA (splice site)
			J133126-B	69A>T
			J133130-B	99R>K
			J133127-B	136W>stop
			J133294-B	99R>K
			J133310-B	133T>I
			J133385-B	130R>Q
<i>CUPIN</i>	Bra003784	AT1G74820	J131589-B	184P>L
			J131590-A	171T>I
			J131652-A	153P>P>S

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			J131629-B	101A>T
			J131757-A	195P>S
			J131789-A	82A>T
			J131822-B	40L>F
			J131887-B	166E>K
			J131888-A	78A>T
			J131940-A	127V>I
			J131929-B	44P>S
			J131947-A	37V>I
			J132103-B	44P>S
			J132175-A	153P>S
			J132263-B	25L>F
			J132296-A	166E>K
			J132808-B	196D>N
			J132810-B	44P>S
			J132866-A	85M>I
			J133059-B	89G>R
GA2OX6	Bra033324	AT1G02400	J131644-A	189P>L
			J131644-B	189P>L
			J131770-B	166E>K
			J131759-A	135S>L
			J131905-B	143A>V
			J131996-A	219G>E
			J131981-A	253G>E
			J132004-B	214S>F
			J132018-A	223C>Y
			J132129-B	214S>F
			J132204-A	268G>R
			J132508-B	217V>I
			J132784-A	199G>D

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			J132784-B	270P>L
			J132957-B	191A>V
			J132942-B	249A>T