

Supplementary Material

1.1 Supplementary Figures



Figure 1S. Distribution of StoTR01_86 in metaphase spreads in seven *Senna* species. StoTR01_86 signals are labeled orange. Scale bar = $5 \mu m$



Figure 2S. Distribution of StoTR03_178 in metaphase spreads in seven *Senna* species. StoTR03_178 signal is indicated in yellow. Scale bar = 5 μ m.



Figure 3S. Distribution of StoTR05_180 in metaphase spreads in seven *Senna* species. StoTR05_180 signals are labeled pink. Scale bar = $5 \mu m$



Figure 4S. Distribution of StoIGS_463 in metaphase spreads in seven *Senna* species. The StoIGS_463 signal is labeled purple. Scale bar = $5 \mu m$



Figure 5S. Distribution of Sto_5S, Sto_45S, and Sto_Tel repeat probes in the metaphase spreads in seven *Senna* species. Sto_5S, Sto_45S, and Sto_Tel repeat signals are labeled green, red, and blue, respectively. Scale bar = $5 \mu m$

Supplementary Material



Figure 6S. FISH karyogram showing TR probe distribution in *S. angulata*. Scale bar = $5 \mu m$

DAPI	88 9 8	8 8 8	46 X 4 8	8.8 8 8	90 88	** `**	**	8.8 8.9	₩# ₩#	6 2 8 9	e. e 4. e	88 6 8	8 10 8 2	**
Sto_5S	0 0 0 0	() () () () () () () () () () () () () (10 E 0 0	8 8 31	9.0 8.5	0 0 9	0 0 0 P	88		6 0 8 9	0.0	88 68	4 B 15	# # # %
Sto_45S	0 0	\$ 8 8) 8	10 X 0 8	8 8 20	9.0 8.8	•	••	6.6 8.8	9 0 9 6	6 0 8 9		88	0 0 0 0	8 8 # 5
Sto_Tel	00 CS 00 CS		45.5 8 4	88. 89	94 021			88 88	20 90	88 241	86 68	88 88	516 923	253 679
StoTR01_86	0.8 0.8	8 8 8 8	iii i: ⊕ 8	8 8 8 8	9.0 8.5	^س مح 4 4	••	8.8 8.8	9 0 9 6	6 8 8 9	а. • а	8 S 8 B	0 0 0 0	**
Merged	0.0		45. 8 4	88. 89	94 62			88 83	10 95	83 241	84 48	83 8 8	10 A A	253 673
	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Figure 7S. FISH karyogram showing TR probe distribution in *S. artemisioides* subsp. *petiolaris*. Scale bar = 5 μ m

DAPI	热症 病的	月月 月月	8. 6. 8. 800	*1	44 44	88 88	4.6 3 ¥	88 21,5	# # # #	54 54	88 8 8 8	88 5 1	篇章 卷风	15 <i>9</i> 6 16 15
Sto_5S	10 B	月月 今天	11. U.	# A 6 8	66	12 B 18 B	4.0.3	28 25	22 (k) 14 (k)	94 94	8 S 8 8	10 X 10 X	8 B 8 N	10 M
Sto_455	10 H 10 H 10 H	月月 丙氏		20 A 41 A 41 A	* * * *	28 28	4 0 3 9	8 8 21 55	25 (9) 16 (6)	9 N 19 N	8 S 8 8		8 B 8 N	8 F 5 N
Sto_Tel		首花 西天	1. A. 1. 1. 8. 1. 1. 2	23. 25	8.6 6 6	176 ,23	an An	#£ 8,6	48 6 E	্রাম হুর	游波 教者	28 5 %	4.31 7624	20 10 20 10,
StoTR01_86	2 8 8 8 8	15 15 15 15 15 15 15 15 15 15 15 15 15 1	 In the second sec	• •	A A A A	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	4.0	5 E 2 A	21 (A) 14 (A)	14 B 15 B	33 <i>35</i> 43 33		花 起 风 石	10 3' 3 10
Merged	1-1-2-3 5-3-5-1	首星 两天		5 Å 8 D	A 4. A 3	76 478	48 318	## 8.16	11.9 9 F	র্গ ম ভ গ	55. 8 g	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	40.55 1520	8 8 8 M
	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Figure 8S. FISH karyogram showing TR probe distribution in *S. artemisioides* nothosubsp. *sturtii*. Scale bar = $5 \mu m$

DAPI	8.0	# 8	6.1	**	8.9	80	8.6	8\$	88	6.8	68	88	8 W	* 8
Sto_5S	8.0	# 6	6.0	8.6	8.9	8.0	8.6	85	8.9	6.8	6.6	8.8	65	8.8
Sto_45S	8.0	# 6	6.0	8.6	8.9	17	8.6	85	8.8	6.8	6.0	8.8		8.8
Sto_Tel	12		翁本	0.0	# #	88	01	88	11 D	a 10	0.0	88	8 10	RA
StoTR01_86	8.0	# 6	6.0	8.0	8.9	27	8.6	85	8.9	6.8	6.0		6 m	8.8
StoTR03_178		£.3	<u>66 e</u> .	0.6	,	8.6	11	18 J		6.0	(i) O	88	# 10	88
Merged			# f.	0.0	\$ B	M		93	01	<i>6</i> b	0 D	80	1	84
	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Figure 9S. FISH karyogram showing TR probe distribution in *S. hirsuta* var. *hirta*. Scale bar = $5 \mu m$

DAPI	68	88	81	**	4.8	8 ÿ	31	88		88	ŝÊ	88	88	
Sto_55	9.0	88	85	± 8	6.8	$\hat{n}\hat{\phi}$	3.6	83	8.8	0.0	66	88	8.8	8.8
Sto_45S	9.8	88	85	± 8	6.8	$\hat{g} = \hat{g}$	э.е	83	8.8	0.0	2p	88	8.8	8.9
Sto_Tel			11	20		1.7	20	1.1	72		4.6		51	8.6
StoTR01_86	9.8	88	85	58	6.8	$\hat{n} \hat{\phi}$	3.6	8.8	8.8	8.0)p	88	9.8	8.9
Merged		21	11	11	1.	1.7	22		7 I.	8 C 2 B	ł.	 	51	8.8
	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Figure 10S. FISH karyogram showing TR probe distribution in *S. lindheimeriana* using the TRs probes. Scale $bar = 5 \mu m$

DAPI	81	89	5.8	85	${\bf \hat{a}} {\bf \hat{v}}$	R 0	6.8	8.8	61	38	28	8.0	8,8	6.0
Sto_5S	88	89		35	$\overline{a} \overline{v}$	3.0		8.8	6.8	38	$^{\pm 0}$		8.9	
Sto_45S	88			85	20	R 0		8.8	6.8	38	$\otimes b$			
Sto_Tel	1	10 U	10	00	40	Re	83	00	63	20		£.	0,0	6.0
Merged			1		20	Re	63	00	63	20		6.5	8.9	6. E
	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Figure 11S. FISH karyogram showing TR probe distribution in S. pallida. Scale bar = $5 \mu m$

DAPI	68		88	62	66		96	84		R 4	8.8	68	6 g	88
Sto_5S	68	0.0	88	68	66	9.0	14			8.0	8.0	68	6.2	8.8
Sto_45S	6.0	0.0	86	68	66	9.0	•	80	80	8.0	0.0	69	6.0	8.8
Sto_Tel		1	00	1012		10	10		00	00	40	6 P	9.0	42
StoTR01_86	6.0	0.0	88	68	66	6.0		1	9.0	8.0	0.0	68	6.8	8.8
StolGS_463	6.0	0.0	86	68	66	9.0	14			8.6	8.8	68	6.8	8.8
Merged	100			1012		10	15	181	00	10	\$0	60	9.0	22
	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Figure 12S. FISH karyogram showing TR probe distribution in S. sophera. Scale bar = $5 \mu m$