Supplementary Information for the mauscript

Gene duplication and genetic exchange drive the evolution of S-RNase based self-incompatibility

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Supplementary Methods

Plant materials. Lines of S_5 , S_7 , S_9 - and S_{11} -haplotypes from *Petunia hybrida*^{9,51} and the lines of S_{17} , S_{19} - and S_{C2} -haplotypes from *P. axillaris*^{21,52} were described previously. In this research, we used additional lines of S_{10} -, S_{22} -, S_{0m} -, S_{m} -, and S_{22m} -haplotypes from *P. hybrida*. Homozygous self-compatible lines of S_m - and S_{0m} -haplotypes were the doubled-haploid line "Mitchell" and the inbred line W138, respectively⁵³. *S-RNase* sequences were identified by degenerate PCR using primer sequences listed in Supplementary Table 3. *S-RNase* sequence from Mitchell (S_m -RNase) was novel, but *S-RNase* from W138 was identical with previously identified S_0 -RNase from commercial SC *P. hybrida* cv. Strawberry Daddy⁵⁴. Because we cannot judge the identity of *S*-haplotype only from *S-RNase* sequence, we named *S*-haplotypes from W138 as S_{0m} in this work. Homozygous lines of S_{10} -, S_{22} - and S_{22m} -haplotypes were established in this work from three commercial lines of P. *hybrida*. We determined S_{22m} - and S_{12} -haplotypes as pollen-side SC haplotypes by reciprocal pollination with S_{22m} - and S_{17} -homozygous plants, respectively (Supplementary Fig. 10a,b; see main text). We confirmed that SC phenotypes were genetically linked to the *S*-locus in all SC lines.

The interspecific crosses between the lines from *P. hybrida* and *P. axillaris* were compatible, and all the resulting progenies were fertile. Therefore, we do not distinguish them, and simply refer to them as '*Petunia*' in this article.

Expression profiling. Template preparations and reaction conditions were described previously⁹. We conducted RT-PCR using *SLF* genes-specific primers (listed in Supplementary table 2) with 32 cycles for all of *SLF*s except for S_5 -*SLF18*, for which reaction was conducted with 28 cycles.

Vector construction. Fragments containing open reading frames (ORFs) of S_5 -SLF3, S_7 -SLF3, S_{11} -SLF3B, S_7 -SLF9A and S_{11} -SLF9 were amplified with forward primers containing *Bam*HI sites and reverse primers containing *Sac*I sites. *pR1909-LAT52-pro:TAP:S*₁₁-SLF3-35Spro:AtFT-LAT52-pro:Venus plasmid vector⁹ was digested with *Bam*HI and *Sac*I, and the S_{11} -SLF3 coding region was replaced with these amplified fragments to yield vectors listed in Supplementary Fig. 3.

Plant transformation and *in vivo* function assay. S_7 -SLF1-expressing plants with S_{22} -haplotype were obtained by crossing with S_7 -SLF1-transgenic plants previously described⁹. Other transgenic plants were newly obtained by Agrobacterium-mediated plant transformations described previously⁹. Breeding histories, genotypes and SI phenotypes of all transgenic lines are listed in Supplementary Table 4.

Genotyping and linkage analysis by genomic PCR. Genotyping of transgenic plants and linkage analysis were performed as described⁹. Progenies segregating for S_5 -, S_7 -, S_9 -, S_{11} -haplotypes were obtained from $S_5S_{11} \times S_7S_9$ and $S_5S_9 \times S_7S_{11}$ crosses, and progenies segregating for S_{17} - and S_{19} -haplotypes were obtained from $S_{17}S_{19} \times S_5S_5$ and $S_{11}S_{11} \times S_{17}S_{19}$ crosses. Gene-specific primers not described⁹ are listed in Supplementary Table 2.

Preparation of cDNA libraries and next generation sequencing. Total RNA was extracted from mature pollen of an S_7 -homozygous plant and unopened mature anthers of S_5 -, S_9 -, S_{11} -, S_{17} -, S_{19} - and S_{0m} -homozygous plants, as described previously⁹. For sequencing of anther transcripts from S_{0m} -homozygous plant, poly (A)⁺ RNA were enriched using Oligotex-dT30 super (Takara), and the preparation of cDNA library and the sequencing using GS Junior system were performed at Roche Diagnostics Japan (http://www.roche-diagnostics.jp). For sequencing of transcripts from other plants, cDNA libraries were prepared from total RNA using the SMARTer PCR cDNA synthesis kit (Clontech). Sequencings were performed using Roche 454 Genome Sequencer FLX System at Hokkaido System Science (for S_7 -homozygous plant), and at the Functional Genomics Center Zurich (for all other plants). The sequenced reads information is summarized in Supplementary Table 14.

Monte-Carlo simulation of S-RNase proportion recognized by SLFs. Monte-Carlo simulation was conducted in order to consider the difference of recognition rates among SLF types. The proportion of S-RNases recognized by n SLF types, $P_S(n)$, was simulated by the following equation (4):

$$P_{S}(n) = \frac{\sum_{i=1}^{m} P_{Mi}(n)}{m}$$
(4)

$$P_{Mi}(n) = 1 - \prod_{j=1}^{n} (1 - P_{Tj})$$

where *m* is the number of bootstrapping sampling times and the *n* elements of $\{P_{Tj}\}$ are selected in each bootstrapping sampling time *i* at random with replacement from the recognition rates of each SLF type,

$$P_T := \left\{ \frac{6}{12}, \frac{3}{6}, \frac{1}{6}, \frac{1}{8}, \frac{1}{8}, \frac{1}{8}, \frac{1}{8}, \frac{1}{8}, \frac{1}{6}, \frac{1}{6}, \frac{1}{6} \right\}.$$
(5)

 P_{Ti} corresponds to the recognition rate of SLF type *i* (Supplementary Table 13b). To calculate P_T , the recognition rates of SLF type, the interaction between SLF type and a particular S-RNase allelic variant is considered positive, when one or more allelic variants of the SLF type showed positive interaction experimentally. In this simulation, we used m = 10,000 times as bootstrapping sampling iteration. The Monte-Carlo simulation is implemented and performed in Ruby (ver. 1.9.3) (Supplementary Material). Mersenne Twister⁵⁵ was used for the random number generator in the Ruby script.

Supplementary Material Ruby script code that realizes the Monte-Carlo simulation for the estimation of the proportion of S-RNases recognized by n SLF types described in the Online Method.

#!/usr/bin/env ruby# encoding: utf-8# Date: 20140501# Author: Masaomi Hatakeyama

TRIAL = 10000 N_MAX = 30 PROBS = [0.5, 0.5, 0.1666666667, 0.125, 0.125, 0.125, 0.125, 0.1666666667, 0.0] SEED = 1234

srand(SEED)
dat_file = File.basename(__FILE__).gsub(/.rb/,'.dat')
plt_file = File.basename(__FILE__).gsub(/.rb/,'.plt')
png_file = File.basename(__FILE__).gsub(/.rb/,'.png')

```
class Array
  def sum
    inject(0.0) { |sum, i| sum += i }
  end
  def ave
    inject(0.0) { |sum, i| sum += i } / size
  end
  def var
    average = ave
    inject(0.0) { |sum, i| sum += (i - average)**2 } / (size-1)
  end
  def sd
    Math::sqrt(var)
  end
```

```
def se
sd/Math.sqrt(size)
end
def ci
1.96*se
end
```

end

```
def f(n,probs)
  fail_prob = 1.0
  n.times do
    px = probs[rand(probs.length)]
    fail_prob *= (1.0-px)
  end
  1.0-fail_prob
end
```

```
open(dat_file, "w") do |out|
  (1..N_MAX).each do |n|
    trials = []
    trials2 = []
    TRIAL.times do
        trials << f(n, PROBS)
    end
    #out.puts [n, trials.ave, trials.sd].join("¥t")
    out.puts [n, trials.ave, trials.ave-trials.sd, trials.ave+trials.sd].join("¥t")
    end
end
open(plt_file, "w") do |out|
    out.print <<-EOF
set xlabel "Number of SLF types"</pre>
```

```
set ylabel "SRNase recognized probability by SLF types"
```

```
set yrange[0.1:1.0]
set key below
set term png
set out "#{png_file}"
set arrow 1 from 20,0.1 to 20,1 nohead linewidth 0.1
set arrow 2 from 16,0.1 to 16,1 nohead linewidth 0.1
set arrow 3 from 18,0.1 to 18,1 nohead linewidth 0.1
set xtics('0' 0, '5' 5, '10' 10, '15' 15, '16' 16, '18' 18, '20' 20, '25' 25, '30' 30)
p '#{dat_file}' not w l,'#{dat_file}' u 1:2:3:4 not with yerrorbar, 0.95 not, 0.99 not
    EOF
end
command = "gnuplot -persist #{plt_file}"
```

puts command

system command





sup. Fig. 1

Supplementary Figure 1 Phylogeny of SLFs from *Petunia*. Phylogenetic tree of deduced amino-acid sequences of SLFs shown in Fig.1 is described without the compressed representation. For details, see METHODS and caption of Fig. 1. Based on this phylogeny, previously identified S_7 -SLF3 (Ref. 9) is now assigned into a clade type-13, and renamed as S_7 -SLF13. Instead, we newly identified SLF that belongs to the type-3 clade from S_7 -haplotype, and named it as S_7 -SLF3. The phylogeny also suggests that the previously identified SLF-like genes, SLFLa, SLFLb, A113 and A134, are alleles of type 7–10 SLFs, and renamed as SLF7, SLF8, SLF9, and SLF10, respectively^{37,56}. Information of accession codes and synonyms of SLFs used in this phylogenetic analysis was summarized in Supplementary Tables 1 and 9.

S5-RNase S5-SLF9	1 1 5555 5787 5959 5959 517517 517517 519519 50m50m 522522 510510 51050m 570510 510510 510510	(bp) 628 482	S9-RNase S9-SLF7	5555 5787 5787 5989 517817 517817 517817 517817 517817 517817 517817 50m50m 522522 510500 510500 510500 50m50m50m 50m50m 50m50m 50m50m 50m50m50m 50m50m50m50m 50m50m50m50m50m50m50m50m50m50m50m5000000	(bp) 347 343	S17-RNase S17-SLF8A	\$555 \$787 \$959 \$11511	517517 519519 50m50m 522522 510510 5m5m	(bp) 210 915
S5-SLF12		262	S9-SLF10	68	816	<mark>S17-SLF12B/Cψ</mark> S22-SLF12		-	1515 : 578
S5-SLF16	-	330	S9-SLF11		422	S19-RNase		-	358
<i>S5-/S</i> 10 <i>-/S</i> 22- / <i>S</i> m <i>-SLF18</i>		248	S9-SLF13		519	S19-SLF10B		-	607
S5-FBX2	-	353	S9-SLF15		491	S19-FBX1			461
S7-RNase		666	S9-FBX1		422	S19-FBX2	Balantess	-	224
<mark>87-</mark> /S22- <mark>SLF11</mark>		186	S11-RNase	e 🗧 e standars	592	S19-FBX3	9990366	-	456
<mark><i>87-/S</i>0m-<i>SLF13</i></mark>		334	S11-SLF8		661	S0m-RNase			872
S7-SLF14	-	220	S11-SLF11		188	S22-RNase			450
S7-SLF16	-	412	S11-FBX1		353	S10-RNase		-	1017
S7-FBX1		378				Sm-RNase			346
S5-RNase S5-SLF9 S5-SLF12	555 558 558 558 558 558 558 558 558 558	89811 89811 89811	S9511 5957 5557 5557 5557 5557 5551	87511 8751 8587 8589 8589 8589 8581 8581 8589 8589 8589	8587 87811 8589 8589	5751 5751 5751 558 558 558 558 558	8587 8587 8587 8589 8589	(bp) 628 482 262	1
	S5-RNase S5-SLF9 S5-SLF12 S5-SLF16 S5-IS10-IS22- ISm-SLF18 S5-FBX2 S7-RNase S7-IS22-SLF11 S7-SLF16 S7-SLF16 S7-FBX1 S5-RNase S5-RNase S5-SLF9 S5-SLF9 S5-SLF12	S5-RNase - S5-SLF12 - S5-SLF14 - S5-FBX2 - S7-FRXase - S7-ISD-IS22-SLF11 - S7-SLF14 - S7-SLF16 - S7-FBX1 - S5-FRNase - S5-SLF12 - S5-SLF14 - S7-FBX1 - S5-SLF14 - S5-SLF14 - S5-SLF14 - S5-SLF14 - S5-SLF15 - S5-SLF16 - S5-SLF12 -	S5-RNase (bp) S5-SLF12 262 S5-SLF12 262 S5-SLF12 262 S5-SLF12 262 S5-SLF16 330 S5-SLF16 330 S5-SLF16 330 S5-SLF16 330 S5-SLF16 330 S5-SLF16 333 S5-SLF17 353 S5-SLF18 353 S7-RNase 666 S7-ISD 334 S7-SLF14 220 S7-SLF16 412 S7-SLF16 378 S7-SLF16 1555 (50 (50 (50 (50 (50 (50 (50 (50 (50	S5-RNase 628 S9-RNase S5-SLF9 482 S9-SLF7 S5-SLF12 262 S9-SLF10 S5-SLF12 262 S9-SLF11 S5-SLF16 330 S9-SLF13 S5-SLF18 248 S9-SLF13 S5-FBX2 55-FBX2 353 S9-SLF15 S7-RNase 666 S9-FBX1 S7-ISDr-JS22- JS7-SLF14 186 S11-RNase S7-JS2-SLF14 334 S11-SLF8 S7-SLF14 220 S11-SLF11 S7-SLF14 220 S11-SLF11 S7-SLF16 378 510-SUP S7-SLF16 510-SUP 510-SUP S7-SLF14 220 S11-SLF11 S7-SLF14 220 S11-SLF11 S7-FBX1 378 510-SUP S5-FRNase 550 S0	S5-RNase 628 S9-RNase S5-SLF9 482 S9-SLF7 S5-SLF12 262 S9-SLF10 S5-SLF16 330 S9-SLF10 S5-SLF18 248 S9-SLF13 S5-RNase 666 S9-RNase S5-SLF18 333 S9-SLF11 S5-SLF18 248 S9-SLF15 S5-RNase 666 S9-RNase S5-RNase 666 S9-RNase S5-SLF18 333 S9-SLF15 S5-RNase 666 S9-RD1 S5-RNase 666 S9-RD1 S7-RNase 666 S9-RD1 S7-SLF14 220 S11-SLF8 S7-SLF16 333 334 S11-SLF8 S7-SLF16 412 S11-FBX1 515 S7-RNase 556, 56, 56, 56, 56, 56, 56, 56, 56, 56,	S5-RNase 628 S9-RNase 347 S5-SLF12 262 S9-SLF11 816 S5-SLF12 262 S9-SLF11 422 S5-SLF16 330 S9-SLF13 519 S5-FBX2 353 S9-SLF15 491 S7-FINase 666 S9-FBX1 422 S7-FINase 666 S9-FBX1 422 S7-SLF14 220 S11-SLF11 188 S7-SLF14 334 S11-SLF11 188 S7-SLF14 334 S11-SLF11 188 S7-FINase 666 S9-FBX1 422 S7-FINase 666 S9-FBX1 422 S7-FINase 666 S9-FBX1 422 S7-FINase 666 S9-FBX1 422 S7-SLF14 220 S11-SLF11 188 S7-SLF14 378 559 559 S7-FBX1 378 559 559 559 S5-SLF9 55-SLF12 559 559 559 559 S5-SLF12 55-SLF12 550 550	S5-RNase 628 S9-RNase 347 S17-RNase S5-SLF9 482 S9-SLF7 343 S17-SLF8A S5-SLF12 262 S9-SLF10 816 S17-SLF12BrOw S5-SLF16 330 S9-SLF11 422 S19-SLF10 S5-SLF16 330 S9-SLF11 422 S19-RNase S5-SLF16 330 S9-SLF13 519 S19-SLF10 S5-SLF16 330 S9-SLF15 491 S19-FBX1 S5-FBX2 353 S9-SLF15 491 S19-FBX1 S7-FBX2 353 S9-SLF15 491 S19-FBX1 S7-FBX2 353 S9-SLF15 491 S19-FBX1 S7-FBX2 353 S9-FBX1 422 S19-FBX3 S7-FBX2 353 S9-FBX1 422 S19-FBX3 S7-SLF14 220 S11-SLF19 188 S22-RNase S7-SLF14 378 S10-RNase 553 S10-RNase S7-FBX1 378 S10-SU S15	1 1	55-RNase 628 S9-SLF10 816 S17-SLF12 55-SLF12 262 S9-SLF10 816 S17-SLF12 55-SLF16 330 S9-SLF11 422 S19-RNase 55-SLF12 262 S9-SLF13 519 S19-SLF108 55-SLF12 262 S9-SLF11 422 S19-RNase 55-SLF12 262 S9-SLF13 519 S19-SLF108 55-SLF16 330 S9-SLF13 519 S19-SLF108 55-SLF12 262 S9-SLF13 519 S19-SLF108 55-SRX2 353 S9-SLF15 491 S19-FBX1 57-RNase 666 S9-FBX1 422 S19-FBX2 57-SLF14 220 S11-SLF18 491 S19-FBX3 57-SLF14 220 S11-SLF11 188 S22-RNase 57-SLF14 200 S11-SLF11 353 S10-RNase 57-SLF16 378 S11-FBX1 353 S10-RNase 57-SLF16 378 S11-FBX1 353 S10-RNase 57-SLF16 378 S55 SK55555555555555

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S5-RNase				628
S5-SLF9	 			482
S5-SLF12	 			262
S5-SLF16	 			330
S5-SLF18	 			248
S5-FBX2	 			353
S7-RNase	 			666
S7-SLF11	 	-		186
S7-SLF13	 	<u> </u>		334
S7-SLF14	 			220
S7-SLF16	 			412
S7-FBX1	 			378
S9-RNase	 			347
S9-SLF7	 -			343
S9-SLF10	 			816
S9-SLF11	 		808 80 AL AL AL	422
S9-SLF13			100 800 Rod Rod Rod Rod	519
S9-SLF15				491
S9-FBX1	 			422
S11-RNase	 			592
S11-SLF8			and and and and and	661
S11-SLF11				188
S11-FBX1	 			353

	8789 8789 8587 8587 8587 8587 8587 8587	(bp)
S5-RNase		628
S5-SLF9		482
S5-SLF12		262
S5-SLF16		330
S5-SLF18		248
S5-FBX2		353
S7-RNase		666
S7-SLF11		186
S7-SLF13		334
S7-SLF14		220
S7-SLF16		412
S7-FBX1		378
S9-RNase	and and the second of the second s	347
S9-SLF7		343
S9-SLF10	M CONTRACTOR	816
S9-SLF11		422
S9-SLF13		519
S9-SLF15		491
S9-FBX1		422
S11-RNase		592
S11-SLF8		661
S11-SLF11		188
S11-FBX1		353
		(h.m.)
S11-RNase	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	(bp) 592
S17-RNase		210
S17-SLF8A		915
S17-SLF12		1515
Β/Ϲψ		578
S19-HNase		358
S19-SLF10B		507 461
S19-FBX1		224

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S5-RNase

S17-RNase

S17-SLF8A

S17-SLF12 Β/Cψ

S19-RNase S19-SLF10B

S19-FBX1

S19-FBX2

S19-FBX3

С

	S118 S118 S118	S115	STIS	STIS	STI2 STI2 STI2	S115 S115	S118	S115 S115 S115	S115 S115	STIE	S115 S115	S118 S118	S115 S115	STIS	S118 S118 S118 S118	5115
S11-RNase																
S17-RNase		-		-	-		-					-		-		-
S17-SLF8A		-		-				-	-					-		÷
S17-SLF12 Β/Cψ		1		1	-			11	-			1				ł
S19-RNase		-				•			-			_		-		-
S19-SLF10B		1					201 201 2	i ine	-							
S19-FBX1		-	•	**		•			-			**		-		
S19-FBX2		-		-					-			-		-		
S19-FBX3				-				• • • •	-			-				

15:Cψ 3:B

456

(bp)

592 210

358

607

461

224

456

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5	13	19	17	19	17	19	12	19	12	17	19	19	17	19	19	17	19	19	19	17	12	19	19	19	17	14	12	1	17	19	2	2 1	2 9	2 1	19	12	19	19	17	17	12	4	19	5 5	4
	252 252	S5S	0 0 0	000	000	S.5.S	555	S5S	S5S	S5S	S5S	S5S	S5S	S5S	S5S	555	S5S																												
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915 1515 : Cψ 578 : B **Supplementary Figure 2** Genetic linkage between *SLF*s and *S-RNase*. (a) PCR was performed using genomic DNA prepared from *S*-homozygous plants to evaluate the specificity of primer pairs. Primers are listed in Supplementary Table 2. (b, c) Genetic linkage analyses between *S-RNase* and *SLF* genes of S_5 -, S_7 -, S_9 - and S_{11} -haplotypes. PCR was performed using genomic DNA prepared from 48 progeny plants of an $S_5S_{11} \times S_7S_9$ cross (b), and from 48 progeny plants of an $S_5S_9 \times S_7S_{11}$ cross (c). (d, e) Genetic linkage analyses between *S-RNase* and *SLF* genes of S_{17} - and S_{19} -haplotypes. PCR was performed using genomic DNA prepared from 48 progeny plants of an $S_5S_{11} \times S_7S_9 \times S_7S_{11}$ cross (c). (d, e) Genetic linkage analyses between *S-RNase* and *SLF* genes of S_{17} - and S_{19} -haplotypes. PCR was performed on genomic DNA prepared from 48 progeny plants of an $S_{17}S_{19}$ cross (d) and from 48 progeny plants of an $S_{17}S_{19} \times S_5S_5$ cross (e).



Supplementary Figure 3 Newly isolated *SLF* genes show a male reproductive organ-specific expression profile. RT-PCR analyses of the expression profiles of six types of *SLF* genes in (A) S_{5^-} , (B) S_{7^-} , (C) S_{9^-} and (D) S_{11} -homozyogotes. cDNA was prepared from each *S*-homozygote, and Type-7 to Type-18 *SLF*s and ungrouped *SLF*-like F-box (*FBX*) genes were amplified by specific primer pairs. The *ubiquitin* gene was also amplified and electrophoresed as a control. All primer sequences are shown in Supplementary Table 2.

pBI121-S5-FBX-pro:S7-SLF1 Xhol S_7 -SLF1 *Eco*RI BamHI NPTI S_5 -SLF18-pro LB RB Nos-pro Nos-ter Nos-tei pRI909-LAT52-pro:TAP:S5-SLF3-35S-pro:AtFT-LAT52-pro:Venus Sacl *Hin*dIII BamHI S5-SLF3 *Eco*RI *Eco*RI NPTII AtFT Venus LB LAT52-pro c-Myc-FLAG Nos-ter LAT52-pro Nos-ter Nos-pro Nos-ter 35S-pro Nos-ter RB pRI909-LAT52-pro:TAP:S7-SLF3-35S-pro:AtFT-LAT52-pro:Venus Sacl *Eco*BI BamHI S5-SLF3 HindIII Eco_{RI} NPTI AtFT Venus LB Nos-pro LAT52-pro c-Myc-FLAG Nos-ter LAT52-pro RB Nos-ter Nos-ter 35S-pro Nos-ter pRI909-LAT52-pro:TAP:S₁₁-SLF3B-35S-pro:AtFT-LAT52-pro:Venus Sacl *Hin*dIII BamHI S_5 -SLF3 *Eco*BI Eco_{RI} NPTII AtFT Venus LB LAT52-pro c-Myc-FLAG Nos-ter LAT52-pro Nos-ter Nos-pro 35S-pro Nos-ter Nos-ter pRI909-LAT52-pro:TAP:S₇-SLF9A-35S-pro:AtFT-LAT52-pro:Venus Sac *Hin*dIII **Bam**HI S₇-SLF9 *Eco*BI *Eco*RI NPTII AtFT Venus LAT52-pro c-Myc-FLAG LB Nos-ter Nos-pro Nos-ter 35S-pro Nos-ter LAT52-pro Nos-ter RB pRI909-LAT52-pro:TAP:S₁₁-SLF9-35S-pro:AtFT-LAT52-pro:Venus Sacl BamHI S11-SLF9 *Eco*RI *Hin*dIII *Eco*RI NPTII AtFT Venus LB Nos-pro LAT52-pro c-Myc-FLAG Nos-ter LAT52-pro Nos-tei Nos-ter 35S-pro Nos-ter RB

Supplementary Figure 4 Schematic representation of transgene constructs used for transformation experiments. The region between the right border (RB) and left border (LB) is integrated into transgenic plants. *Nos*, the gene encoding nopaline synthase; *pro*, promoter; *ter*, transcription terminator; *LAT52-pro*, pollen/pollen tube-specific *LAT52* promoter of tomato⁵⁷; *35S-pro*, Cauliflower mosaic virus *35S* promoter; *S₅-SLF18-pro*, 2028 bp of the upstream region of the *S₅-SLF18* gene; *NPTII*, the gene encoding neomycin phosphotransferase II (conferring kanamycin resistance); *AtFT*, *Arabidopsis thaliana FLOWERING LOCUS T* gene (accelerating flowering and to shortening the experimental time period)⁵⁸; *Venus*, the gene encoding enhanced yellow fluorescent protein⁵⁹. Small arrows denote the locations of the forward and reverse primers used in PCR genotyping and RT-PCR analysis of each transgene (for primer sequences, see Supplementary Table 2).



Supplementary Figure 5 Representative results of transgenic experiments to detect the *in vivo* interaction between type-3 SLFs and S₇-RNase. (**a–c**) Pollen tubes derived from S_5 -*SLF3* transgenic plants were stained with aniline blue and monitored by fluorescence microscopy. The S_5S_{11}/S_5 -*SLF3* (**a**), S_5S_{17}/S_5 -*SLF3* (**b**) and S_5S_{19}/S_5 -*SLF3* (**c**) transgenic plants retained SI, indicating that S₅-SLF3 did not recognize and detoxify S₅-, S₁₁-, S₁₇-, and S₁₉-RNases. (**d–h**) Pollen tubes derived from S_7 -*SLF3*-transgenic plants were stained with aniline blue and monitored by fluorescence microscopy. All transgenic plants exhibited SI, indicating that S₇-SLF3 did not recognize and detoxify S₅-, S₇-, S₉-, S₁₁-, S₁₇-, and S₁₉-RNases. (**i–m**) Pollen tubes derived from S_{11} -*SLF3B*-transgenic plants were stained with aniline blue and monitored by fluorescence microscopy. All transgenic plants were stained with aniline blue and monitored by fluorescence microscopy. All transgenic plants were stained with aniline blue and monitored by fluorescence microscopy. All transgenic plants were stained with aniline blue and monitored by fluorescence microscopy. All transgenic plants exhibited SI, indicating that S₁₁-SLF3B did not recognize and detoxify S₅-, S₇-, S₉-, S₁₁-, S₁₇-, and S₁₉-RNases. (**i–m**) Pollen tubes derived from S_{11} -*SLF3B*-transgenic plants exhibited SI, indicating that S₁₁-SLF3B did not recognize and detoxify S₅-, S₇-, S₉-, S₁₁-, S₁₇-, and S₁₉-RNases. Bars = 200 µm.





Supplementary Figure 7 Representative results of transgenic experiments to demonstrate the *in vivo* interaction between S₇-SLF1 and S₂₂-RNase. (**a-c**) Pollination phenotype of $S_{19}S_{22}/S_7$ -SLF1 transgenic plants. $S_{19}S_{22}/S_7$ -SLF1 exhibited breakdown of SI (a), whereas pistil of $S_{19}S_{22}/S_7$ -SLF1 retained incompatibility against pollen from S_{19} -homozygote (b) and S_{22} -homozygote (c). (**d**) PCR genotyping of 22 progeny plants obtained by selfing of $S_{19}S_{22}/S_7$ -SLF1 (T).



sup. Fig. 8





sup. Fig. 8

Supplementary Figure 8 Phylogenies of SLF-related F-boxes from species possessing S-RNase-based SI. (a) Whole tree constructed by using *Petunia* SLFs and all BLAST hits from the tomato and potato databases, as well as other SLF-related F-box proteins from Solanaceae, Plantaginaceae, and Rosaceae. PiFBP2011 and PiFBP2411 from *Petunia inflata* were used as the outgroup⁶⁰. For other details, see Online Methods and the caption of Fig. 3. In this tree, Solanaceae SLF, Antirrhinum SLF, Prunus SLFL, and Maloideae SFBB clades are shown in compressed representation (black triangles). A subtree of Solanaceae SLFs is shown in Fig. 3a. (b) Subtree of SLF clade in (a) is shown. *Petunia* SLFs types are shown in compressed representation (black triangles). (c) Subtree of Solanaceae SLF clade (see Fig. 3a) is shown without compression. Round red markers indicate *SLFs* from genus *Petunia (P. hybrida, P. axillaris* and *P. inflata*); blue, genus *Solanum (Solanum lycopersicum, S. tuberosum* and their relatives); green, genus *Nicotiana*. 'PGSC0003DMG' is omitted from each potato gene ID to simplify, and '-STchx' is attached to indicate genes located on *S. tuberosum* chromosome x.



sup. Fig. 9

Supplementary Figure 9 Phylogenies of S-RNase-related RNase-T2s from species possessing S-RNase-based SI. (a) Whole tree constructed using *Petunia* S-RNases and all hits from BLAST searches of the tomato and potato databases, as well as other RNase-T2s from Solanaceae, Plantaginaceae and Rosaceae. Classification of RNase-T2 is made according to refs. 61 and 62. RNase-T2s from human and the filamentous fungus *Rhizopus niveus* were used as outgroup^{63,64}. For other details, see METHODS and the caption of Fig. 3. In this tree, S-RNase clades from Solanaceae, Antirrhinum, Prunus, and Maloideae are shown in compressed representation (black triangles). A subtree of Solanaceae S-RNases clade is shown in Fig. 3b. (b) Subtree of S-RNase clade in (a) is shown without compression.



Supplementary Figure 10 S_{C2} - and S_{22m} -haplotypes are the pollen-side SC haplotypes. Reciprocal pollination tests between SC S_{C2} - and SI S_{17} -homozygous plants (**a**) and between SC S_{22m} - and SI S_{22} -homozygous plants (**b**). Pollen tubes were stained with aniline blue, and the compatibility was judged by the presence of a large number of pollen tubes at the basal end of the style (arrowhead). Bars = 200 µm.

a. S-RNases



sup. Fig. 11

Supplementary Figure 11 S_{7^-} , S_{19^-} , S_{22m^-} , S_{C2} -haplotypes share identical *SLF1* and *SLF8*. Alignment of deduced amino-acid sequences of S-RNases (**a**), SLF1s (**b**) and SLF8s (**c**) from S_{7^-} , S_{19^-} , S_{22m^-} , and S_{C2} -haplotypes of *Petunia*. Deduced amino-acid sequences were aligned using MEGA5.2.2 and illustrated using the GENETYX-MAC (ver. 16.0.6). Amino-acid residues conserved in more than half of the aligned sequences are shown by darkened background. Amino-acid residues identical with the first line are indicated by dots. Gaps are indicated by hyphens.



Supplementary Figure 12 Self-compatible S_{C2^-} and S_{22m} -haplotypes have different SLF repertoires from self-incompatible S_{17^-} and S_{22} -haplotypes, respectively. Red characters indicate differential SLFs. ψ indicates pseudogene. (a) Comparisons of SLF-repertoires between S_{C2^-} and S_{17^-} -haplotypes. No gene corresponding to $S_{17^-}SLF9A$, $S_{17^-}SLF12A$ or $S_{17^-}SLF17$ was found from the S_{C2^-} -haplotype. 1–6-bp substitutions were detected in SLF1, SLF5 and SLF14. (b) Comparisons of SLF-repertoires between S_{22^-} and S_{22m} -haplotypes. Type-3, -4, -5, -6, -7, -8, -9, -11, -12, -13, -14 and -16 SLFs shared completely identical sequences, whereas the type-10 SLFs had four nucleotide differences affecting three amino acids. We hypothesized that this difference is the result of inter-haplotypic gene exchange, because S_{22^-} and S_{22m} -SLF10 and S_{0m} - $/S_7$ - $/S_{11}$ - $/S_{17}$ -SLF10, respectively. Type-15 SLF was not found from S_{22m} -haplotype, while type-17 SLF was not found from S_{22m} -haplotype.

Type-1 SLFs

Type-8 SLFs



0.01

Supplementary Figure 13 Coevolutionary relationships between type-1 and type-8 SLFs. Neighbor-joining phylogenic trees of type-1 and -8 SLFs were created with MEGA 5.2.2. Both trees are shown in the same scale; the bar for each tree indicates the number of base substitutions per site. Numbers on the branches indicate bootstrap values >50% with 1,000 trials. Identical SLF1 and SLF8 shared among four different *S*-haplotypes are highlighted in pink. Horizontal gray lines indicated gene pairs on the same *S*-haplotypes holding similar branching patterns.

Supplementary Table 1 Repertoire of SLF genes identified in our research

S5-haplotype

Gene	RPKM	Accession ID	References	Note
S5-SLF1	23.72	AB568390	ref. 9	interact with S9- and S17-RNases
S5-SLF2	2.28	AB568394	ref. 9	interact with S9- and S11-RNases
S5-SLF3	13.50	AB568399	ref. 9	interact with S7-RNases
S5-SLF4	3.06	AB568405	ref. 9	
S5-SLF5	2.37	AB568411	ref. 9	
S5-SLF5B	10.19	AB932964	this work	
S5-SLF6	34.20	AB568417	ref. 9	
S5-SLF8	5.74	AB932965	this work	
S5-SLF9	27.11	AB932966	this work	
S5-SLF10	18.07	AB932967	this work	
S5-SLF11	11.28	AB932968	this work	
S5-SLF12	8.66	AB932969	this work	
S5-SLF13	6.59	AB932970	this work	
S5-SLF15ψ	undetectable	AB932971	this work	1 bp insertion at position 107
S5-SLF16	22.18	AB932972	this work	
S5-SLF17	10.36	AB932973	this work	
S5-SLF18	123.97	AB568423	ref. 9	synonymous with S5-FBX, identical to S10-/S22-/S22m-SLF18s
S5-FBX2	14.80	AB932974	this work	
total tags number	590953			

S7-haplotype

Gene	RPKM	Accession ID	References	Note
S7-SLF1	5.60	AB568391	ref. 9	interact with S9- and S17-RNases, identical to S19-/SC2-/S22m-SLF1s
S7-SLF1B	5.42	AB932975	this work	
S7-SLF2	3.30	AB568395	ref. 9	interact with S9-, S11-, and S19-RNases
S7-SLF3	2.20	AB932976	this work	
S7-SLF4	undetectable	AB568406	ref. 9	
S7-SLF5	4.29	AB568412	ref. 9	
S7-SLF6	4.52	AB568418	ref. 9	
S7-SLF8A	9.24	AB932977	this work	
S7-SLF8B	2.14	AB932978	this work	identical to S19-/SC2-/S22m-SLF8s
S7-SLF9A	25.75	AB932979	this work	interact with S19-RNase
S7-SLF9Βψ	10.89	AB932980	this work	deletion from position 646
S7-SLF10	36.14	AB932981	this work	
S7-SLF11	8.07	AB932982	this work	
S7-SLF13	27.53	AB568400	ref. 9	renamed from S7-SLF3
S7-SLF14	4.25	AB932983	this work	
S7-SLF16	25.96	AB932984	this work	
S7-SLF17	6.39	AB932985	this work	
S7-FBX1	1.26	AB932986	this work	
total tags number	634016			

total tags number

S9-haplotype

Gene	RPKM	Accession ID	References	Note
S9-SLF1	undetectable	AB568392	ref. 9	interact with S17-RNase
S9-SLF3	28.33	AB568401	ref. 9	
S9-SLF4	9.17	AB568407	ref. 9	
S9-SLF5	1.10	AB568413	ref. 9	
S9-SLF6	3.38	AB568419	ref. 9	
S9-SLF7	30.54	AB932987	this work	
S9-SLF8	5.03	AB932988	this work	
S9-SLF9A	2.32	AB932989	this work	
S9-SLF9B	7.76	AB932990	this work	
S9-SLF10	40.51	AB932991	this work	
S9-SLF11	23.05	AB932992	this work	
S9-SLF12ψ	undetectable	AB932993	this work	1 bp deletion at position 193
S9-SLF13	2.85	AB932994	this work	
S9-SLF14	5.33	AB932995	this work	
S9-SLF15	undetectable	AB932996	this work	
S9-SLF16A	7.85	AB932997	this work	
S9-SLF16B	1.33	AB932998	this work	
S9-SLF17	8.27	AB932999	this work	
S9-FBX1	16.17	AB933000	this work	
total tags number	550736			

S10-haplotype

Gene	RPKM	Accession ID	References	Note
S10-SLF1	_	AB933001	this work	
S10-SLF3	_	AB933002	this work	
S10-SLF4	_	AB933003	this work	
S10-SLF5	_	AB933004	this work	
S10-SLF8	_	AB933005	this work	
S10-SLF10	_	AB933006	this work	
S10-SLF11	_	AB933007	this work	
S10-SLF12	_	AB933008	this work	
S10-SLF13	_	AB933009	this work	
S10-SLF14	_	AB933010	this work	
S10-SLF16	_	AB933011	this work	
S10-SLF17	_	AB933012	this work	
S10-SLF18	_	AB933013	this work	identical to S5-/S22-/S22m-SLF18s
total taxa a successive as	and shall a			

total tags number no data

S11-haplotype

Gene	RPKM	Accession ID	References	Note
S11-SLF1	16.41	AB568393	ref. 9	interact with S17-RNase
S11-SLF2	1.31	AB568396	ref. 9	interact with S9-RNase
S11-SLF3	21.95	AB568402	ref. 9	interact with S7-RNase
S11-SLF3B	2.34	AB933014	this work	
S11-SLF4	undetectable	AB568408	ref. 9	
S11-SLF5	2.55	AB568414	ref. 9	
S11-SLF6	1.15	AB568420	ref. 9	
S11-SLF7	undetectable	AB933015	this work	
S11-SLF8	undetectable	AB933016	this work	
S11-SLF9	1.36	AB933017	this work	interact with S19-RNase
S11-SLF10	29.63	AB933018	this work	
S11-SLF11	8.68	AB933019	this work	
S11-SLF13	4.39	AB933020	this work	
S11-SLF14	2.57	AB933021	this work	
S11-SLF15ψ	2.70	AB933022	this work	26 bp deletion at position 732
S11-SLF16	4.94	AB933023	this work	
S11-FBX1	2.61	AB933024	this work	
total tags number	545880			

S17-haplotype

Gene	RPKM	Accession ID	References	Note
S17-SLF1	58.77	AY766153	ref. 21	synonymous with SLF-S17
S17-SLF1B	12.96	AY766155	ref. 21	synonymous with PaF1
S17-SLF2	9.23	AB568397	ref. 9	partial sequence
S17-SLF3	26.51	AB568403	ref. 9	
S17-SLF4A	4.57	AB568409	ref. 9	
S17-SLF4Bψ	1.42	AB933025	this work	2 bp insertion at position 802
S17-SLF5	2.55	AB568415	ref. 9	
S17-SLF6	14.98	AB568421	ref. 9	
S17-SLF7ψ	7.53	AB933026	this work	5 bp deletion at position 236
S17-SLF8A	4.27	AB933027	this work	
S17-SLF8Βψ	4.05	AB933028	this work	premature stop at position 535
S17-SLF9A	undetectable	AB933029	this work	
S17-SLF9B	30.29	AB933030	this work	
S17-SLF10	52.70	AB933031	this work	
S17-SLF11	28.40	AB933032	this work	
S17-SLF12A	undetectable	AB933033	this work	
S17-SLF12B	1.29	AB933034	this work	
S17-SLF12Cψ	2.42	AB933035	this work	943 bp insertion at position 523
S17-SLF13	5.07	AB933036	this work	
S17-SLF14	8.83	AB933037	this work	
S17-SLF16	23.63	AB933038	this work	
S17-SLF17	11.07	AB933039	this work	
total tags number	550612			

S19-haplotype

Gene	RPKM	Accession ID	References	Note
S19-SLF1	4.38	AY766154	ref. 21	synonymous with SLF-S19, identical to S7-/SC2-/S22m-SLF1s
S19-SLF1B	23.67	AB933040	this work	
S19-SLF2	32.32	AB568398	ref. 9	
S19-SLF3	50.63	AB568404	ref. 9	
S19-SLF4	5.66	AB568410	ref. 9	
S19-SLF5A	15.84	AB568416	ref. 9	
S19-SLF5B	19.31	AB933041	this work	
S19-SLF6	16.77	AB568422	ref. 9	
S19-SLF7ψ	20.25	AB933042	this work	29 bp insertion at position 821
S19-SLF8A	10.82	AB933043	this work	
S19-SLF8B	21.13	AB933044	this work	identical to S7-/SC2-/S22m-SLF8s
S19-SLF10A	26.60	AB933045	this work	
S19-SLF10B	20.90	AB933046	this work	
S19-SLF11	24.07	AB933047	this work	
S19-SLF12	8.70	AB933048	this work	
S19-SLF13	14.41	AB933049	this work	
S19-SLF14	21.03	AB933050	this work	
S19-SLF15ψ	10.23	AB933051	this work	1 bp insertion at position 905
S19-SLF16	19.34	AB933052	this work	
S19-FBX1	20.96	AB933053	this work	
S19-FBX2	31.13	AB933054	this work	
S19-FBX3	6.65	AB933055	this work	
total tags number	521109			

S22-haplotype

Gene	RPKM	Accession ID	References	
S22-SLF1	_	AB933056	this work	
S22-SLF3	_	AB933057	this work	
S22-SLF4	_	AB933058	this work	
S22-SLF5	_	AB933059	this work	
S22-SLF6	_	AB933060	this work	
S22-SLF7ψ	_	AB933061	this work	31 bps deletions, frameshift
S22-SLF8	_	AB933062	this work	
S22-SLF9	_	AB933063	this work	
S22-SLF10	_	AB933064	this work	identical to Sm-SLF10
S22-SLF11	_	AB933065	this work	
S22-SLF12	_	AB933066	this work	
S22-SLF13	_	AB933067	this work	
S22-SLF14	_	AB933068	this work	
S22-SLF15	_	AB933069	this work	
S22-SLF16	_	AB933070	this work	
S22-SLF18	—	AB933071	this work	identical to S5-/S10-/S22m-/Sm-SLF18s

total tags number no data

Som-haplotype

Gene	RPKM	Accession ID	References	Note
S0m-SLF1	15.14	AB933072	this work	
S0m-SLF2	8.15	AB933073	this work	partial sequence
S0m-SLF3	undetectable	AB933074	this work	
S0m-SLF4	7.05	AB933075	this work	
S0m-SLF5	undetectable	AB933076	this work	
S0m-SLF6	20.38	AB933077	this work	
S0m-SLF7	30.52	AB933078	this work	
S0m-SLF8	7.47	AB933079	this work	
S0m-SLF10	33.22	AB933080	this work	
S0m-SLF11	22.65	AB933081	this work	
S0m-SLF12	7.45	AB933082	this work	
S0m-SLF13	15.75	AB933083	this work	
S0m-SLF14	27.73	AB933084	this work	
S0m-SLF15ψ	7.26	AB933085	this work	1 bp insertion at position 78
S0m-SLF16	undetectable	AB933086	this work	
S0m-SLF17	undetectable	AB933087	this work	
S0m-FBX1	60.39	AB933088	this work	
S0m-FBX2	undetectable	AB933089	this work	
total tags number	101431			

S_m-haplotype

Gene	RPKM	Accession ID	References	Note
Sm-SLF1	_	AB933090	this work	
Sm-SLF2	_	AB933091	this work	
Sm-SLF3	_	AB933092	this work	
Sm-SLF5	_	AB933093	this work	
Sm-SLF6	_	AB933094	this work	
Sm-SLF7	_	AB933095	this work	
Sm-SLF8	_	AB933096	this work	
Sm-SLF9A	_	AB933097	this work	
Sm-SLF9B	_	AB933098	this work	
Sm-SLF10	_	AB933099	this work	
Sm-SLF11	_	AB933100	this work	
Sm-SLF12A	_	AB933101	this work	
Sm-SLF12B	_	AB933102	this work	
Sm-SLF13	_	AB933103	this work	
Sm-SLF14	_	AB933104	this work	
Sm-SLF15	_	AB933105	this work	
Sm-SLF16	_	AB933106	this work	
Sm-SLF18	_	AB933107	this work	identical to S5-/S10-/S22-/S22m-SLF18s
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total tags number no data

SC2-haplotype

Gene	RPKM	Accession ID	References	Note
SC2-SLF1A	_	AY766153	ref. 21	identical to S17-SLF1
SC2-SLF1B	_	AY766155	ref. 21	identical to S17-SLF1B
SC2-SLF1C	_	AY766154	ref. 21	identical to S7-/S19-/S22m-SLF1s
SC2-SLF2	_	AB933108	this work	identical to S17-SLF2
SC2-SLF5	_	AB933109	this work	1 bp (1 aa) different from S17-SLF5
SC2-SLF6	_	AB933110	this work	identical to S17-SLF6
SC2-SLF7ψ	_	AB933111	this work	identical to S17-SLF7ψ
SC2-SLF8A	_	AB933112	this work	identical to S17-SLF8A
SC2-SLF8Βψ	_	AB933113	this work	identical to S17-SLF8Bψ
SC2-SLF8C		AB933114	this work	identical to S7-/S19-/S22m-SLF8s
SC2-SLF9	_	AB933115	this work	identical to S17-SLF9B
SC2-SLF10	_	AB933116	this work	identical to S17-SLF10
SC2-SLF11	_	AB933117	this work	identical to S17-SLF11
SC2-SLF12	_	AB933118	this work	identical to S17-SLF12B
SC2-SLF13	_	AB933119	this work	identical to S17-SLF13
SC2-SLF14	_	AB933120	this work	6 bps (5 aas) different from S17-SLF14
SC2-SLF16	—	AB933121	this work	identical to S17-SLF16
total tags number	no data			

S22m-haplotype

Gene	RPKM	Accession ID	References	Note
S22m-SLF1A	_	AB933122	this work	identical to S22-SLF1
S22m-SLF1B	_	AB933123	this work	identical to S7-/S19-/SC2-SLF1s
S22m-SLF3	_	AB933124	this work	identical to S22-SLF3
S22m-SLF4	_	AB933125	this work	identical to S22-SLF4
S22m-SLF5	_	AB933126	this work	identical to S22-SLF5
S22m-SLF6	_	AB933127	this work	identical to S22-SLF6
S22m-SLF7ψ	_	AB933128	this work	identical to S22-SLF7ψ
S22m-SLF8A	_	AB933129	this work	identical to S22-SLF8
S22m-SLF8B	_	AB933130	this work	identical to S7-/S19-/SC2-SLF8s
S22m-SLF9	_	AB933131	this work	identical to S22-SLF9
S22m-SLF10	_	AB933132	this work	identical to S0m-/S7-/S11-/S17-SLF10s
S22m-SLF11	_	AB933133	this work	identical to S22-SLF11
S22m-SLF12	_	AB933134	this work	identical to S22-SLF12
S22m-SLF13	_	AB933135	this work	identical to S22-SLF13
S22m-SLF14	_	AB933136	this work	identical to S22-SLF14
S22m-SLF16	_	AB933137	this work	identical to S22-SLF16
S22m-SLF17	_	AB933138	this work	identical to S0m-/S7-/S9-/S10-/S17-SLF17s
S22m-SLF18	_	AB933139	this work	identical to S5-/S10-/S22-/Sm-SLF18s

total tags number no data

 ψ following a gene name indicates pseudogene. For *SLF*s of the S_{5^-} , S_{7^-} , S_{9^-} , S_{11^-} , S_{19^-} and S_{0m} -haplotypes, relative expression levels are shown in RPKM (Reads Per Kilobase of exon model per Million mapped reads), and total numbers of ESTs are shown at the bottom of each table. GenBank accession IDs and references are also shown.

Supplementary Table 2 List of primer sequences

	Name	Primer		Target / Purpose
Type-7 specific amplification	SLF7-F1	CAA AGT ATA TTT TAC ATT GCA TTG CAG A	F	Type-7 SLFs / genomic PCR
	SLF7-F2	GGG TTT TAG AAG ACT ATG GCG ATC	F	Type-7 SLFs / 3' RACE, genomic PCR
	SLF7-F3	GTT GAG AAA GTG GAA GAT CGA TGT	F	Type-7 SLFs / 3' RACE, genomic PCR
	SLF7-F4	ATG ACT CTC TAA CAC TGA TCT GTT ACC G	F	Type-7 SLFs / 3' RACE, expression analysis
	SLF7-R1	GAG AAG GGT AAG CTC TAT TTA AAT TGG	R	Type-7 SLFs / genomic PCR
	SLF7-R2	GTA CTC CTT CAT TGT CCA AAT TTC CA	R	Type-7 SLFs / 5' RACE, genomic PCR
	SLF7-R3	TTC CGT TCT TCC AAA CCA ATG AG	R	Type-7 SLFs / 5' RACE, genomic PCR
	SLF7-R4	TGA GCT CTC TAA AAA TTT TGA ACT TGA GTA CTA	R	Type-7 SLFs / genomic PCR, expression analysis
Type-8 specific amplification	SLF8-F1	TCA AAG GAT CGG AGG TAT TAC AGA GA	F	Type-8 SLFs / genomic PCR
	SLF8-F2	GAA ACA TTT TTT ATT GCA TTG AAG AGA AC	F	Type-8 SLFs / genomic PCR
	SLF8-F3	GGT TTT GAC TCG ATT GTG AAG GAC T	F	Type-8 SLFs / 3' RACE
	SLF8-F4	AAG CAA AAG TGG ACT TCT TGT TTC CTA C	F	Type-8 SLFs / 3' RACE, expression analysis
	SLF8-R1	ATT TAG GCT GAA AAC TAC TTT CCA ATC A	R	Type-8 SLFs / genomic PCR, expression analysis
	SLF8-R2	CCT TTT TTG GAA TTG AAA TCA AGC	R	Type-8 SLFs / 5' RACE
	SLF8-R3	CTC CAA GAA TCA AAA CGC AAA TCA	R	Type-8 <i>SLF</i> s / 5' RACE
Type-9 specific amplification	SLF9-F1	ATC CAA CTG AAA TGA GGT CTT AAA GCA	F	Type-9 SLFs, S19-FBX1, 2 and S0m-FBX1 / genomic PCR
	SLF9-F2	GCC GTG GTA CCA AAA AGG CAA	F	Type-9 SLFs, S0m-/S19-FBX1 and 2 / genomic PCR
	SLF9-F3	GAA GTT AAG GAA TTA GAT TTG CAT GGT CT	F	Type-9 SLFs / 3' RACE, expression analysis
	SLF9/10-F1	AAT GAA GGA ATA CGG TGA AAA GGA G	F	Type-9 and -10 <i>SLF</i> s. <i>S0m-/S19-FBX1</i> and <i>2</i> /3' RACE
	SLF9/10-F2	GAA TCC CCA TTA GCA GTT TGG AAG	F	Type-9 and -10 SLFs. S0m-/S19-FBX1 and 2/3' BACE
	SLF9-R1	CCA TTG ATC TGT AAG TTG TTG CTG C	B	Type-9 SLFs / genomic PCB
	SLF9-B2	GAA GTT CTA TGC AAT CCT TAT TTC TTG G	B	Type-9 SLFs and S0m-/S19-FBX1 / 5' BACE
	SI F9-B3	CGA ATT ANG ATC ATA GGC ANT CAA ATG T	B	Type-9 SLFs and SOm-/S19-EBX1 / 5' BACE
	SI F9-B4	AAT ATG GCT TCC ATT GAT CTG TAA GTT G	B	Type-9 $SI F_S$ / genomic PCB expression analysis
Type-10 specific amplification	SLF10-F1	CCG AAG TAA GAT CCA ACT AAA ATG ATG T	F	Type-10 SLEs / genomic PCB
,	SLF10-F2	GAA GTC CAG GAA TTA GAT TTA CAT GGT TA	F	Type-10 SLFs / 5' RACE, expression analysis
	SLF9/10-F1	AAT GAA GGA ATA CGG TGA AAA GGA G	F	Type-9 and -10 SLFs. S0m-/S19-FBX1 and 2/3' RACE
	SLF9/10-F2	GAA TCC CCA TTA GCA GTT TGG AAG	F	Type-9 and -10 SLFs. S0m-/S19-FBX1 and 2/3' RACE
	SLF10-R1	TAG TAT TCA GAT GTG TTA GGT TGT TGC C	R	Type-10 SLFs / genomic PCR, expression analysis
	SLF10-R2	ATT AAA TAC GAT AGT GGT AAG GGA ATC TGT	R	Type-10 SLFs / 5' RACE
	SLF10-R3	CAG CAG TGG TGG TCA AAT GTG G	R	Type-10 SLFs / 5' RACE
Type-11 specific amplification	SLF11-F1	ATG TTT GAC GGG TCG CTC CTT	F	Type-11 SLFs / genomic PCR
	SLF11-F2	ATT ACT ACA CAA TCA TTC CCA TAT AGC ACA	F	Type-11 SLFs / 3' RACE, genomic PCR
	SLF11-F3	TTG TTG GAG AGA CCT GGA TCT TAC G	F	Type-11 SLFs / 3' RACE, expression analysis
	SLF11-R1	AAT TAA AAG TGT GGA AAT CTT CAC AAA GAA	R	Type-11 SLFs / 5' RACE, genomic PCR
	SLF11-R2	GAG GCC ATA ACC TTT ATT GTC CCA	R	Type-11 SLFs / 5' RACE, genomic PCR, expression analysis
Type-12 specific amplification	SLF12-F1	AAG GGA GTA AAG CTG CTA TTT TGA	F	Type-12 SLFs / genomic PCR
	SLF12-F2	CTT CCA GTA AAG TTT CTC TTG CGA TTC	F	Type-12 SLFs / 3' RACE, expression analysis
	SLF12-F3	TCA CGC TCT CAC AAA ATC TTC CAC T	F	Type-12 SLFs / 3' RACE
	SLF12-R1	AGT ATT AAA ATC CCA CGA TGA AAA AG	R	Type-12 SLFs / genomic PCR, expression analysis
	SLF12-R2	TAA TTG TGT ATT TCT TTG TCC AAG ACT CAT	R	Type-12 and -4 SLFs / 5' RACE
	SLF12-R3	GGA ACT TAC ATT CAT CAC AGC AAC CAG	R	Type-12 <i>SLF</i> s / 5' RACE
Type-13 specific amplification	SLF13-F1	AAA TGT TAT TAC ACA CAC AAT CCT TGA A	F	Type-13 SLFs / 3' RACE, genomic PCR
	SLF13-F2	TGG TTT GAT TCT TTT GAC AGA CTC GTT	F	Type-13 SLFs / 3' RACE, expression analysis
	S7-SLF13-R	CTT AAG TTG GGG TGT TTT ACC TTC TC	R	Type-13 SLFs / genomic PCR
	SLF13-R1	AAG ATC TCC ATA CAC ACG TGA AAC TCT AAT	R	Type-13 SLFs / 5' RACE
	SLF13-R3	AAA ACA GAG AAG TAA ACG CAT TTG TCC	R	Type-13 SLFs / 5' RACE, genomic PCR, expression analysis
Type-14 specific amplification	SLF14-F1	AGC TGA TAC TAC TCA AAG AAA CCT AAC TC	F	Type-14 SLFs / genomic PCR
	SLF14-F2	ATT CTC TTC AAG CGC TCG TTC AA	F	Type-14 SLFs / 3' RACE
	SLF14-F3	ATC TCA TTG GTT CGG AAA CAC AAA TAC	F	Type-14 SLFs / 3' RACE, expression analysis
	SLF14/16-F1	TGT CTC TCC AGA TTT AGA AGT GCC ATA	F	Type-14 and -16 SLFs / 3' RACE
	SLF14/16-F2	GGA GAG AGG TAG AAA ATG TGG ATC AAC	F	Type-14 and -16 SLFs / 3' RACE
	SLF14-R1	TTA TTA TTG ATA GGC TTT TAC ACA ATT TAA	R	Type-14 SLFs / genomic PCR
	SLF14-R2	AAG CAT TTC TAA TAA CTG AAC TAA CTT AGG GA	R	Type-14 SLFs / 5' RACE, genomic PCR, expression analysis
	SLF14-R3	GAA CGA TGG AAA CCT AGT GGA CTG	R	Type-14 SLFs / 5' RACE
	SLF14-R4	GTT GCT GGA TTA GAT AAT ACT GTA GTT ACT TT	R	Type-14 SLFs / 5' RACE

SLF14/16-R2 CTG GAG AAA CAT GGT GAA GGT CAT AA R Type-14 and -16 SLFs / 5' RACE Type-15 specific amplification SLF15-F1 TTA GAG CTA TTA CAC TGC AAA GGA ACC A F Type-15 SLFs / 3' RACE SLF15-F2 CTG AAG TAC AAT GGT GAA GAT TGC CTA AAG AA F Type-15 SLFs / 3' RACE SLF15-F3 GTG AAA TTA TGG AAA GAT TGC CTA AAG A F Type-15 SLFs / 3' RACE SLF15-F4 GGA ATA TGA TGG AAT ACG CTG TGG A F Type-15 SLFs / 3' RACE, expression analysis SLF15-R1 GGA ATG CAT AAC CTG AAA CGA CAA R Type-15 SLFs / 5' RACE, genomic PCR SLF15-R2 TTT TGG GCA TTT GGT ACT ATG CTC T R Type-15 SLFs / 5' RACE, genomic PCR, expression analysis Type-16 specific amplification SLF16-F1 ATG CC CTA AAA TTT GG AAC GTG GAA CAT TGA F Type-16 SLFs / 3' RACE, genomic PCR, expression analysis Type-16 specific amplification SLF16-F1 ATG CC CTA AAA TTT GG AGT ACG GAA CAT TGA F Type-16 SLFs / 3' RACE, expression analysis Type-16 specific amplification SLF16-F1 ATG CC CTA GAA TTT GG AGT GC ATTG GAA CAT TGA F Type-16 SLFs / 3' RACE, expression analysis SLF14/16-F1 CTC TC CC AGA TTA GG ATA GC GC ATTA F Type-16 SLFs / 3' RACE, expression analysis
Type-15 specific amplificationSLF15-F1TTA GAG CTA TTA CAC TGC AAA GGA ACC AFType-15 SLFs / genomic PCRSLF15-F2CTG AAG TAC AAT GTG CAT TGC TTT GAFType-15 SLFs / 3' RACESLF15-F3GTG AAA TTA TGG AAA GAT TGC CTA AAG AFType-15 SLFs / 3' RACESLF15-F4GGA TAA TGA TGG AAT ACG GTG TGG AFType-15 SLFs / 3' RACE, expression analysisSLF15-F1GGA ATG CAT ACC CTG AAA CGA CAARType-15 SLFs / 5' RACE, genomic PCRSLF15-R2TTT TGG GCA TTT GGT ACT ATG CTC TRType-15 SLFs / 5' RACESLF15-R3CCC AGT TAA AAA GTT ATC GAG AAG TAG GTRType-16 SLFs / 5' RACE, genomic PCR, expression analysisType-16 specific amplificationSLF16-F1ATG TCC CTA AAA TTC TAC AGT GAA CAT TGAFType-16 SLFs / 3' RACE, expression analysisType-16 specific amplificationSLF16-F1ATG TCC CTA AAA TTC TAC AGT GAA CAT TGAFType-16 SLFs / 3' RACE, expression analysisSLF14/16-F2GGG GGA GAG TAG AAA TG TGG ATT CG TGT GGCFType-16 and -14 SLFs / 3' RACESLF14/16-F2GGA GAG GAG TAG AAA TG GGA TCA AACFType-16 and -14 SLFs / 3' RACESLF16-R1TAG CTA AAG AAT ATG AAA GAA GAA CCRType-16 SLFs / genomic PCRSLF16-R2CCG AAG AGA GAG TAT TAG AAA GAA TGC TGG TRType-16 SLFs / 5' RACE, genomic PCR, expression analysiSLF16-R3ATG CTG GTT TTA TAT TTT GAA GTT AGA GAGRType-16 SLFs / 5' RACE, genomic PCR, expression analysiSLF14/16-R1ACC AGG GCG TTA TA AAT GTA GAA AAG GAG GAGRType-16 and -14 SLFs / 5' RACE, genomic PCR, express
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SLF15-F3GTG AAA TTA TGG AAA GAT TGC CTA AAG AFType-15 SLFs / 3' RACESLF15-F4GGA TAA TGA TGG AAT ACG GTG TGG AFType-15 SLFs / 3' RACE, expression analysisSLF15-R1GGA ATG CAT AAC CTG AAA CGA CAARType-15 SLFs / 5' RACE, genomic PCRSLF15-R2TTT TGG GCA TTT GGT ACT ATG CTC TRType-15 SLFs / 5' RACE, genomic PCR, expression analysisType-16 specific amplificationSLF16-F1ATG TCC CTA AAA TTC TAC AGT GAA CAT TGAFType-16 SLFs / 5' RACE, genomic PCR, expression analysisType-16 specific amplificationSLF16-F1ATG TCC CTA AAA TTC TAC AGT GAA CAT TGAFType-16 SLFs / 3' RACE, expression analysisSLF16-F2GGA GAG GAG TAT CG TGT GGCFType-16 SLFs / 3' RACE, expression analysisSLF14/16-F1TGT CTC TCC AGA TTT AGA AAT GTG ATC AACFType-16 add -14 SLFs / 3' RACESLF14/16-F2GGA GAG AGG TAG AAA ATG TGG ATC AACFType-16 add -14 SLFs / 3' RACESLF16-R2CGG AAG AGG TAG AAA ATG GGA TC AACFType-16 add -14 SLFs / 3' RACESLF16-R2CGG AAG AGG TAG AAA ATG GAA AAG GAA CAT CCRType-16 SLFs / genomic PCRSLF16-R3ATG CTG GTT TTA TAT TTT GAA GTA AGA GAT CCRType-16 SLFs / 5' RACE, genomic PCR, expression analysiSLF16-R1ACT ACG AGG CCA TAA CAC TTC CTG TRType-16 SLFs / 5' RACE, genomic PCR, expression analysiSLF16-R3ATG CTG GTT TTA TAT TTT GAA GTA AGA GAGRType-16 SLFs / 5' RACE, genomic PCR, expression analysiSLF16-R1ACT ACG AGG CCA TAA CAC TTC CTG TRType-16 add -14 SLFs / 5' RACE, genomic
SLF15-F4 GGA TAA TGA TGG ATT ACG GTG TGG A F Type-15 SLFs / 3' RACE, expression analysis SLF15-R1 GGA ATG CAT AAC CTG AAA CGA CAA R Type-15 SLFs / 5' RACE, genomic PCR SLF15-R2 TTT TGG GCA TTT GGT ACT ATG CTC T R Type-15 SLFs / 5' RACE SLF15-R3 CCC AGT TAA AAA GTT ATC GAG AAG TAG GT R Type-16 SLFs / 5' RACE, genomic PCR, expression analysis Type-16 specific amplification SLF16-F1 ATG TCC CTA AAA TTC TAC AGT GAA CAT TGA F Type-16 SLFs / 3' RACE, expression analysis SLF16-F2 GTG CAT TGG TAT CCG TGT GGC F Type-16 SLFs / 3' RACE, expression analysis SLF14/16-F1 TGT CTC TC AGA TTT AGA AGT GCC ATA F Type-16 SLFs / 3' RACE, expression analysis SLF14/16-F2 GGA GAG AGG TAG AAA TGT GG ATC ACC F Type-16 and -14 SLFs / 3' RACE SLF16-R2 GGA AGG AGA GAG TAT AGA AAT GAA AAG AAA GAT CC R Type-16 and -14 SLFs / 3' RACE SLF16-R3 ATG CTG GTT TTA TAT TTT GAA GTT AGA GAG R Type-16 SLFs / 5' RACE, genomic PCR, expression analysis SLF16-R1 TAG CTG GAT TAG AAA TGG GAG TAG AAA GAT CC R Type-16 SLFs / 5' RACE, genomic PCR, expression analysis SLF16-R3 ATG CTG GTT TTA TAT TTT GAA GTA GAG GAG R Ty
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SLF16-F2 GRG CAT FGG TAT CCG TGT GGC F Type-16 SLFs/3 FACE, expression analysis SLF14/16-F1 TGT CTC TCC AGA TTT AGA AGT GCC ATA F Type-16 and -14 SLFs/3' RACE SLF14/16-F2 GGA GAG AGG TAG AAA ATG TGG ATC AAC F Type-16 and -14 SLFs/3' RACE SLF16-R1 TAG CTA AAG AAT ATG GAA GAA GAA CAC F Type-16 SLFs/genomic PCR SLF16-R2 CCG AAG AGA GAG TTA TAG AAA TGC TGG T R Type-16 SLFs/5' RACE, genomic PCR, expression analysis SLF16-R3 ATG CTG GTT TTA TAT TTT GAA GTT AGA GAG R Type-16 SLFs/5' RACE, genomic PCR, expression analysis SLF14/16-R1 ACT ACG AGG CCA TAA CAC TTC CTG T R Type-16 and -14 SLFs/5' RACE
SLF14/16-F1 TGT CTC TCC AGA TTT AGA ACT GCC ATA F Type-16 and -14 SLFs/3 HACE SLF14/16-F2 GGA GAG AGG TAG AAA ATG TGG ATC AAC F Type-16 and -14 SLFs/3' HACE SLF16-R1 TAG CTA AAG AAT ATG AAT GAA AAG AAA GAT CC R Type-16 SLFs/genomic PCR SLF16-R2 CCG AAG AGA GAG TTA TAG AAA TGC TGG T R Type-16 SLFs/genomic PCR SLF16-R3 ATG CTG GTT TTA TAT TTT GAA GTT AGA GAG R Type-16 SLFs/5' RACE, genomic PCR, expression analysi SLF14/16-R1 ACT ACG AGG CCA TAA CAC TTC CTG T R Type-16 and -14 SLFs/5' RACE
SLF14/16-F2 GGA GAG AGG TAG AAA ATG TGG ATC AAC F Type-16 and -14 SLFs/3' RACE SLF16-R1 TAG CTA AAG AAT ATG AAT GAA AAG AAA GAA GAT CC R Type-16 SLFs / genomic PCR SLF16-R2 CCG AAG AGA GAG TTA TAG AAA TGC TGG T R Type-16 SLFs / genomic PCR SLF16-R3 ATG CTG GTT TTA TAT TTT GAA GTT AGA GAG R Type-16 SLFs / 5' RACE, genomic PCR, expression analysi SLF14/16-R1 ACT ACG AGG CCA TAA CAC TTC CTG T R Type-16 and -14 SLFs / 5' RACE
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SLF16-R2 CCG AAG AGA GAG ATA TAG AAA TGC TGG T R Type-16 SLFs / genomic PCR SLF16-R3 ATG CTG GTT TTA TAT TTT GAA GTT AGA GAG R Type-16 SLFs / 5' RACE, genomic PCR, expression analysi SLF14/16-R1 ACT ACG AGG CCA TAA CAC TTC CTG T R Type-16 and -14 SLFs / 5' RACE
SLF16-R3 ATG CTG GTT TTA TAT TTT GAA GTT AGA GAG R Type-16 SLFs / 5' RACE, genomic PCR, expression analysi SLF14/16-R1 ACT ACG AGG CCA TAA CAC TTC CTG T R Type-16 and -14 SLFs / 5' RACE
SLF14/16-R1 ACT ACG AGG CCA TAA CAC TTC CTG T R Type-16 and -14 SLFs / 5' RACE
SLF14/16-R2 CTG GAG AAA CAT GGT GAA GGT CAT AA R Type-16 and -14 SLFs / 5' RACE
Type-17 specific amplification SLF17-F1 GCG CAC ACA TAA AAA ACA TTT CCT AA F Type-17 SLFs / genomic PCR
SLF17-F2 TAT GTG CAT TGG TAT CCC AGT GCT F Type-17 SLFs / 3' RACE, expression analysis
SLF17-R1 TAA GTC AAG TCT CTA CCA GTT GGA CTC G R Type-17 SLFs / genomic PCR, expression analysis
SLF17-R2 TAT GCT CGC GGT CTT TTG GAA R Type-17 and -16 SLFs/5'RACE
SLF17-R3 AAC CAA TGA GAG GCC CCT TTG TA R Type-17 SLFs / 5' RACE
Type-18 specific amplification S5-FBX-F1 CCT CAT GCA ATG AAT TGC TCA AGC AGT F Type-18 SLFs / genomic PCR
S5-FBX-F2 GAT CAA TCG ACT GCT CAA GGA AAA F Type-18 SLFs / 3' RACE
S5-FBX-SF TCG TCG GTT GTT TGG ATA ATG AAA G F Type-18 SLFs / 3' RACE, expression analysis
S5-FBX-R1 TTG ATT GGA CTC TAT TGG AAT TAG GTG R TVDe-18 SLFs / genomic PCR
S5-FBX-R2 TCA AAA ACC AAC AAA TAA CCC TTC CAA R TVDe-18 SLFs / 5' RACE
S5-FBX-R3 CAA TCC AAT GGC AAG CTC CCT TGT R TVDe-18 SLFs / 5' RACE
S5-FBX-SR TAC ATG AGA GTT ACA AAT CAA CCC AAA G R Type-18 SLFs / genomic PCR, expression analysis
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Allele-specific amplification for S5-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F 50-SLF97 yellowyping SLF S5-SLF9-R CTC TTC ACG ACA GAA AGT TTT TCA R S5-SLF97 genotyping
Allele-specific amplification for S5-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F S0-SLF9 / genotyping SLF S5-SLF9-R CTC TTC ACG ACA GAA AGT TTT TCA R S5-SLF9 / genotyping S5-SLF12-F CCG ATT ATG GAA TTG CAT GAA AGT TTT G F S5-SLF12 / genotyping
Allele-specific amplification for S5-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F S5-SLF9/genotyping SLF S5-SLF9-R CTC TTC ACG ACA GAA AGT TTT TCA R S5-SLF9/genotyping S5-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F S5-SLF12/genotyping S5-SLF12-F CCG TAC AGT TAG GAT GAT CAT CAC CAT TAC R S5-SLF12/genotyping
Allele-specific amplification for SLF S5-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F S5-SLF9/genotyping SLF S5-SLF12-F CTC TTC ACG ACA GAA AGT TTT TCA R S5-SLF12/genotyping S5-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F S5-SLF12/genotyping S5-SLF12-F CCG TAC AGT TAA GAT CAT CAC CAT TAC C R S5-SLF12/genotyping S5-SLF12-F CCG TAC AGT TAA GAT CAT CAC CAT TAC C R S5-SLF12/genotyping S5-SLF12-F CCG TAC AGT TAA GAT CAT CAC CAT TAC C R S5-SLF12/genotyping
Allele-specific amplification for SLF SS-SLF9-F ACA ATA TAG GAA TGC CAG ATC CT F SS-SLF9 / genotyping SLF SS-SLF9-R CTC TTC ACG ACA GAA AGT TTT TCA R SS-SLF9 / genotyping S5-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F SS-SLF12 / genotyping S5-SLF12-F CCG TAC AGT TAG GAA GAT CAT CAC CAT TAC C R SS-SLF12 / genotyping S5-SLF12-R CCG TAC AGT TAA GAT CAT CAC CAT TAC C R SS-SLF12 / genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F SS-SLF16 / genotyping S5-SLF10-P NO GAG TAT GGT ATA AAC GAG TCT TGG TG F SS-SLF16 / genotyping
Allele-specific amplification for SLF SS-SLF9-F ACA ATA TAG GAA TGU CAG ATU CT F SS-SLF9 / genotyping SLF SS-SLF9-R CTC TTC ACG ACA GAA AGT TTT TCA R SS-SLF9 / genotyping SS-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F SS-SLF12 / genotyping SS-SLF12-F CCG TAC AGT TAG GAA TGT CAC CAT TAC C R SS-SLF12 / genotyping SS-SLF12-R CCG TAC AGT TAG GAT CAT CAC CAT TAC C R SS-SLF12 / genotyping SS-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F SS-SLF16 / genotyping SS-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R SS-SLF16 / genotyping SS-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R SS-SLF16 / genotyping SS-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R SS-SLF16 / genotyping
Allele-specific amplification for SLF S5-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F S5-SLF9/genotyping SLF S5-SLF12-R CTC TTC ACG ACA GAA AGT TTT TCA R S5-SLF12/genotyping S5-SLF12-R CCG ATT ATG AAA TTG CAT GAA GAT ATT G F S5-SLF12/genotyping S5-SLF12-R CCG TAC AGT TAA GAT CAT CAC CAT TAC C R S5-SLF12/genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F S5-SLF16/genotyping S5-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF16/genotyping S5-FBX-SF CAC CTA ATT CCA ATA GAG TCC AAT CAA TA F S5-SLF16/genotyping, expression analys S5-FBX-SF CAC CTA ATT CCA ATA GAG TCA TAT CAA TA F S5-, S10-, S22-, Sm-SLF18/genotyping, expression analys
Allele-specific amplification for SLF S5-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F S5-SLF9 / genotyping SLF S5-SLF12-F CTC TTC ACG ACA GAA AGT TTT TCA R S5-SLF12/genotyping S5-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F S5-SLF12/genotyping S5-SLF12-F CCG ATC AGT TAG GAA GAT CAT CAC CAT TAC C R S5-SLF12/genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F S5-SLF16/genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F S5-SLF16/genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF16/genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF16/genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF16/genotyping S5-FBX-SF CAC CTA ATT CCA ATA GAG TCC AAT CAA TA F S5-, S10-, S22-, Sm-SLF18/genotyping, expression analys S5-FBX-SR TAC ATG AGA GTT ACA AAT CAA CCC AAA G R S5-, S10-, S22-, Sm-SLF18/genotyping, expression analys
Allele-specific amplification for SLF S5-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F S5-SLF9/genotyping SLF S5-SLF12-F CCC TTC ACG ACA GAA AGT TTT TCA R S5-SLF12/genotyping S5-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F S5-SLF12/genotyping S5-SLF12-F CCG TAC AGT TAG GAA GAT CAT CAC CAT TAC C R S5-SLF12/genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F S5-SLF16/genotyping S5-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF16/genotyping S5-FBX-SF CAC CTA ATT CCA ATA GAG TCC AAT CAA TA F S5-SLF18/genotyping, expression analys S5-FBX-SF CAC CTA ATT CCA ATA GAG GTT ACA AAT CAA CCC AAA G R S5-S10-, S22-, Sm-SLF18/genotyping, expression analys S5-FBX-SF CAC CTA ATT CCA ATA TTCC CAA AGT CAA CCC AAA G R S5-FBX-SI8/genotyping, expression analys S5-FBX-F1 AAA CCG AAA CAA TAT TCC CCA AAG TAG F S5-FBX2/genomic cloning
Allele-specific amplification for SLF S5-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F S5-SLF9/genotyping SLF S5-SLF12-F CCC TTC ACG ACA GAA AGT TTT TCA R S5-SLF12/genotyping S5-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F S5-SLF12/genotyping S5-SLF12-F CCG TAC AGT TAG GAA GAT CAT CAC CAT TAC C R S5-SLF12/genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F S5-SLF16/genotyping S5-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF16/genotyping S5-FBX-SF CAC CTA ATT CCA ATA GAG TCT AGA TAA TA F S5-SLF16/genotyping S5-FBX-SF CAC CTA ATT CCA ATA GAG TCT AGA TAA TA F S5-SLF16/genotyping, expression analys S5-FBX-SF CAC CTA ATT CCA ATA GAG CTC AAT CAA TA F S5-SLF18/genotyping, expression analys S5-FBX-SF TAC ATG AGA GAT TAT TCC CCA AAG TAG R S5-FBX2/genomic cloning S5-FBX2-F1 AAA CCG AAA CAA TAT TCC CCA AAG TAG F S5-FBX2/genomic cloning S5-FBX2-R1 AAA ACG TCG CAG AAA TCC TCG TGA TA R S5-FBX2/genomic cloning
Allele-specific amplification for SLF SS-SLF9-F ACA ATA TAG GAA TGC CAG ATG CT F SS-SLF9 / genotyping SLF SS-SLF9-R CTC TTC ACG ACA GAA AGT TTT TCA R SS-SLF9 / genotyping SS-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F SS-SLF12 / genotyping SS-SLF12-F CCG TAC AGT TAG GAA GAT ATT G R SS-SLF12 / genotyping SS-SLF12-R CCG TAC AGT TAG GAA GAT ATT GCA CAC CAT TAC C R SS-SLF12 / genotyping SS-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F SS-SLF16 / genotyping SS-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R SS-SLF16 / genotyping SS-FBX-SF CAC CTA ATT CCA ATA GAG TCC AAT CAA TAT F SS-SLF16 / genotyping, expression analys SS-FBX-SF CAC CTA ATT CCA ATA GAG TCC AAT CAA TAT F SS-SLF18 / genotyping, expression analys SS-FBX-SF CAC CTA ATT CCC AAA CAA TAT TCC CCA AAG G R SS-SLF18 / genotyping, expression analys SS-FBX-F1 AAA CG AAA CAA TAT TCC CCA AAG TAG F SS-FBX2 / genomic cloning SS-FBX-F1 AAA GG TTG CAG AAA TCC TGG TGA TA R SS-FBX2 / genomic cloning SS-FBX2-F2 ACG GCC TGG TAA TCC TGG AGG F
Allele-specific amplification for SLF SS-SLF9-F ACA ATA TAG GAA TGC CAG ATA CT F SS-SLF9 / genotyping SLF SS-SLF9-R CTC TTC ACG ACA GAA AGT TTT TCA R SS-SLF9 / genotyping SS-SLF12-F CCG ATA ATG AAA TTG CAT GAA GAT ATT G F SS-SLF12 / genotyping SS-SLF12-R CCG TAC AGT TAA GAA CAT CAT CAC CAT TAC C R SS-SLF12 / genotyping SS-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F SS-SLF16 / genotyping SS-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F SS-SLF16 / genotyping SS-FBX-SF CAC CTA ATT CCA ATA GAG TCC AAT CAA TA F SS-SLF16 / genotyping, expression analys SS-FBX-SF CAC CTA ATT CCA ATA GAG TTC CAA AAT CAA CAA TAT F SS-SLF18 / genotyping, expression analys SS-FBX-SF CAC CTA ATT CCA ATA GAG TTC CAA AAT CAA CCA AAA G R SS-FBX2 / genomic cloning SS-FBX-F1 AAA AGG TTG CAG AAA TCC TGG TGA TA R SS-FBX2 / genotyping, expression analysis SS-FBX2-F2 ACG GCC TGG TAA TCC TGG TGA TA R SS-FBX2 / genotyping, expression analysis SS-FBX2-F2 ACG GCC TGG TAA TCC TGG AAG F SS-FBX2 / genotyping, expression analysis SS-FBX2-F2 ACG
Allele-specific amplification for SLFSS-SLF9+FACA ATA TAG GAA TGC CAG ATA CTFSS-SLF9/ genotypingSLFSS-SLF9-RCTC TTC ACG ACA GAA AGT TTT TCARSS-SLF9/ genotypingSS-SLF12-FCCG ATA ATG AAA TTG CAT GAA GAT ATT GFSS-SLF12/ genotypingSS-SLF12-RCCG TAC AGT TAA GAA CAT CAC CAT TAC CRSS-SLF12/ genotypingSS-SLF16-FAAG GAG TAT GGT ATA AAC GAG TCT TGG TGFSS-SLF16/ genotypingSS-SLF16-RAAG GAG TAT GGT ATA AAC GAG TCT TGG TGRSS-SLF16/ genotyping, expression analysSS-FBX-SFCAC CTA ATT CCA ATA GAG CTC AAT CAA TAFSS-SLF16/ genotyping, expression analysSS-FBX-SFCAC CTA ATT CCA ATA GAG CTC AAT CAA TAFSS-SLF18/ genotyping, expression analysSS-FBX-F1AAA CG AAA CAA TAT TCC CCA AAG TAGRSS-FBX2/ genomic cloningSS-FBX2-F2ACG GCC TGG TAA TCC TGG TGA TARSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CCT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisST
Allele-specific amplification for SLFSS-SLF9+FACA ATA TAG GAA TGC CAG ATG CTFSS-SLF9/ genotypingSLFSS-SLF9-RCTC TTC ACG ACA GAA AGT TTT TCARSS-SLF9/ genotypingSS-SLF12-FCCG ATC AGT TAG AAA TTG CAT GAA GAT ATT GFSS-SLF12/ genotypingSS-SLF12-RCCG TAC AGT TAG GAA GGT CAT CAC CAT TAC CRSS-SLF12/ genotypingSS-SLF16-FAAG GAG TAT GGT ATA AAC GAG TCT TGG TGFSS-SLF16/ genotypingSS-SLF16-RAAG GAG TAT GGT ATA AAC GAG TCT AGG TGRSS-SLF16/ genotyping, expression analysiSS-FBX-SFCAC CTA ATT CCA ATA GAG TCC AAT CAA TAFSS-SLF16/ genotyping, expression analysiSS-FBX-SFCAC CTA ATT CCA ATA GAG TCC CAA AGT CAA TAFSS-SLF18/ genotyping, expression analysiSS-FBX-SFCAC CTG TG CAG AAA CAA TAT TCC CCA AAG GAGRSS-SLF18/ genotyping, expression analysiSS-FBX-F1AAA GG TTG CAG AAA CCA TAT TCC CCA AAG GAGFSS-FBX2/ genomic cloningSS-FBX2-R1AAA AGG TTG CAG AAA TCC TGG TGA TARSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CCT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CCT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CCT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CCT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-R2GAT AAT CCT CTC CAA AGT TGT TGA ACGRSS-FBX2/ genotyping, e
Allele-specific amplification for SS-SLP3+ ACA ARA TAG GAA TGC CAG ARG CT F SS-SLP3+ genotyping SLF S5-SLF3+ CTC TTC ACG ACA GAA AGT TTT TCA R S5-SLF3/ genotyping S5-SLF12-F CCG ATT ATG AAA TTG CAT GAA GAT ATT G F S5-SLF12/ genotyping S5-SLF12-R CCG TAC AGT TAG GAA CAT CAC CAT TAC C R S5-SLF12/ genotyping S5-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F S5-SLF16/ genotyping S5-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF16/ genotyping S5-SLF16-R AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF16/ genotyping, expression analys S5-FBX-SF CAC CTA ATT CCA ATA GAG TCC AAT CAA TA F S5-SLF16/ genotyping, expression analys S5-FBX2-F1 AAA CG AAA CAA TAT TCC CCA AAG GAG TC AT GA S5-SLF16/ genotyping, expression analys S5-FBX2-F1 AAA CG AAA CCA TAT TCC CCA AAG TAG R S5-FBX2/ genomic cloning S5-FBX2-F1 AAA GG TTG CAG AAA TCC TGG TGA TAT R S5-FBX2/ genotyping, expression analysis S5-FBX2-F1 AAA GG TTG CAG AAA TCC TGG TAG AAG F S5-FBX2/ genotyping, expression analysis S5-FBX2-F1 AAA GG TTG CAG AAA TCC TGG TAG AAG
Allele-specific amplification for SLFSS-SLF9+ACA ATA TAG GAA TGC CAG ATG CTFSS-SLF9/genotypingSLFSS-SLF9-RCTC TTC ACG ACA GAA AGT TTT TCARSS-SLF9/genotypingSS-SLF12-FCCG ATT ATG AAA TTG CAT GAA GAT ATT GFSS-SLF12/genotypingSS-SLF12-RCCG TAC AGT TAA GAT CAT CAC CAT TAC CRSS-SLF12/genotypingSS-SLF16-FAAG GAG TAT GGT ATA AAC GAG TCT TGG TGFSS-SLF16/genotypingSS-SLF16-RAAG GAG TAT GGT ATA AAC GAG TCT TGG TGRSS-SLF16/genotypingSS-SLF3SS-SLF16CAC CTA ATT CCA ATA GAG TCT TGG TGRSS-SLF16/genotyping, expression analysSS-SLF3SS-SLF16CAC CTA ATT CCA ATA GAG TCT ACA TAAFSS-SLF16/genotyping, expression analysSS-SLF3SS-SLF10AAA GG TT CAA ATA TCC CAA ATA CAA CCA AAT CAAFSS-SLF3/genomic cloningSS-SLF3SS-FBX-SRTAC ATG GAG ATA TCC TGA ATG AGRSS-FBX2/genomic cloningSS-FBX2-F1AAA GG TTG CAG AAA TCC TGG TGA TARSS-FBX2/genomic cloningSS-FBX2-F2ACG CCC TGG TAA TCC TGA ATG AGFSS-FBX2/genomic cloningSS-FBX2-F2ACG GCC TGG TAA TCC TGA AGT GAG AGFSS-FBX2/genomic cloningSS-SLF11-FGAT GAA CTC AAG GGA TTC AAT TTC CAAFSS-FBX2/genotyping, expression analysisSS-FBX2-F2ACG GCC TGG TAA TCC TGA AGG ATT AGT GCCRSS-FBX2/genotyping, expression analysisSS-FBX2-F1GAT GAA CTC AAG GGA TTC AAT TTC CAAFSS-FBX2/genotyping, expression analysisSS-FBX2-F1GAT GAA CTC AAG GA
Allelie-specific amplification for SLFSS-SLF9-FACA ATA TAG GAA TGC CG ACA GAA AGT TTT TCARSS-SLF9/ genotypingSLFSS-SLF9.RCTC TTC ACG ACA GAA AGT TTT TCARSS-SLF9/ genotypingSS-SLF12-FCCG ATA ATG GAA TGC TAG GAA GAT ATT GFSS-SLF12/ genotypingSS-SLF12-RCCG TAC AGT TAG GAA GAT ATA GAC CAT TAC CRSS-SLF16/ genotypingSS-SLF16-FAAG GAG TAT GGT ATA AAC GAG TCT TGG TGFSS-SLF16/ genotypingSS-SLF16-RAAG GAG TAT CCA ATA GAG TCC AAT CAA TAFSS-SLF16/ genotypingSS-FBX-SFCAC CTA ATT CCA ATA GAG TCC AAT CAA TAFSS-SLF16/ genotyping, expression analysSS-FBX-SFCAC CTA ATT CCA ATA GAG TCC AAT CAA TAFSS-SL92, Sm-SLF18 / genotyping, expression analysSS-FBX-SFCAC CTA ATT CCA ATA CAA TAT TCC CCA AAG TAGRSS-FBX2/ genomic cloningSS-FBX-SFAAA CCG AAA CTC TGC GAA ATCC TGG TGA TARSS-FBX2/ genomic cloningSS-FBX2-F2ACG GCC TGG TAA TCC TGC AAT GAGFSS-FBX2/ genotyping, expression analysisSS-FBX2-F2ACG GCC TGG TAA TCC TGC AAT TTC CAAFSS-FBX2/ genotyping, expression analysisSS-FBX2-F2ACG GCC TGG TAA TCC TGC AAT TCC CAAFSS-FBX2/ genotyping, expression analysisSS-FBX2-F2ACG GCC TGG TAA TCC TGC TGA ACGRSS-FBX2/ genotyping, expression analysisSS-FBX2-F2ACG GCA GCA GAA TCC TAA GAA GAT TCC CAAFSS-FBX2/ genotyping, expression analysisS7-SLF11-FGAT GAA CTC TAAG GAA TTC TAT TAG GCCRSS-FBX2/ genotyping, expression analysis
Allele-specific amplification for SLFSS-SLF9-FACA ATA TAG GAA FTGC CAG ATG CTFSS-SLF9 / genotypingSLFSS-SLF9-RCTC TTC ACG ACA GAA AGT TTT TCARSS-SLF9 / genotypingSS-SLF12-FCCG ATA ATG AAA TTG CAT GAA CAT CAC CAT TAC CRSS-SLF12 / genotypingSS-SLF12-RCCG TAC AGT TAG GAT GGT ATA ACG GG TCT TGG TGFSS-SLF16 / genotypingSS-SLF16-RAAG GAG TAT GGT ATA ACA GAG TCT TGG TGFSS-SLF16 / genotypingSS-SLF16-RAAG GAG TAT GGT ATA CAA CAG GTC TGG TGRSS-SLF16 / genotyping, expression analysSS-FBX-SFCAC CTA ATT CCA ATA GAG TCC AAT CAA TAFSS-SLF16 / genotyping, expression analysSS-FBX2-F1AAA CG GAA CAA TAT TCC CCA AAG TAGRSS-SLF18 / genotyping, expression analysSS-FBX2-F1AAA CG GAA CAA TAT TCC CCA AAG TAGRSS-FBX2 / genomic cloningSS-FBX2-F1AAA CG GAA CAA TAT TCC CGA AAG TAGRSS-FBX2 / genomic cloningSS-FBX2-F1AAA GG TTG CAG AAA TCC TGG TGA TARSS-FBX2 / genotyping, expression analysisSS-FBX2-F1AAA GG TTG CAG AAA TCC TGC TGA ATG AGRSS-FBX2 / genotyping, expression analysisSS-FBX2-F1AAA GG TCC TGC CAA AGT TGT TGA ACGRSS-FBX2 / genotyping, expression analysisSS-FBX2-F1AAA GG GC TGG TAA TCC TGC CAA AGT TGT CAARSS-FBX2 / genotyping, expression analysisSS-FBX2-F1AAA GG GC TGG TAA TCC TGC CAA AGT TGT CAARSS-FBX2 / genotyping, expression analysisSS-FBX2-F1GAA GAA CT CAAG GAA TTC AAG TGT CAA TGT CAAFSS-FSX2 / genotypi
Allele-specific amplification of SLF SS-SLF9+ ACA ATA TAG GAA TG CT CC GG ALA GAT GC T F SS-SLF9/genotyping SLF SS-SLF9.R CTC TTC ACG ALA GAA AGT TTT TCA R SS-SLF1/2/genotyping SS-SLF12-F CCG TAC AGT TAG GAA TTG CA GAA GAT ATT G F SS-SLF12/genotyping SS-SLF12-R CCG TAC AGT TAG GAT CAT CAC CAT TAC C R SS-SLF12/genotyping SS-SLF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG F SS-SLF16/genotyping SS-SLF16-FR AAG GAG TAT CAC ATA GAG TCT TAG TG T F SS-SLF16/genotyping SS-SLF16-FR AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R SS-SLF16/genotyping SS-SLF3 CAC CTA ATT CCA ATA GAG TCT CAG AT CAT CAC TAT CAC TGG TG TG R SS-SLF18/genotyping, expression analys SS-FBX-SR TAC ATG GAG GTT CACA ATA CAC TGA CAT CAA TA F SS-SLF3/genotyping, expression analys SS-FBX-FBX-F11 AAA CG GAG GTT CACA ATA CAC CAA TAG R SS-FBX2/genotyping, expression analys SS-FBX-F12 ACG GCC TGG TAA TCC TGG TAA TCC TGG TA R SS-FBX2/genotyping, expression analysis SS-FBX-F12 ACG GCC TG GTAA TCC TGA TAT TT GA ACG R SS-FBX2/genotyping, expression analysis SS-FBX-F11
Allele-specific amplification forSS-SU-94ACAATA TAG GAA TCC CAG ATG CTFSS-SU-94SS-SU-94Senton y lentonypingSLFS5-SU-94S5-SU-94CCC TTC A GG ACA GAA AGT TTT TCARS5-SU-94
Allele-specific amplification for SUF94SS-SLF94ACA ATA TAGE GAA TCC CRG ATG CTFSS-SLF9 (genotyping)SLFSS-SLF97RCTC TTC ACG ACG GAA AGT TT TCARSS-SLF9 (genotyping)SS-SLF12-FCCG ATA ATG GAA TAG CAT GAA GAA ATT GFSS-SLF12 (genotyping)SS-SLF12-FCCG TAC AGT TAG GAT ATA AC GAG TCT TGG TGFSS-SLF12 (genotyping)SS-SLF16-FAAG GAG TAT GGT ATA AAC GAG TCT TGG TGRSS-SLF16 (genotyping)SS-SLF16-FAAG GAG TAT GGT ATA AAC GAG TCT TGG TGRSS-SLF16 (genotyping)SS-FBX-SFCAC CTA ATT CCA ATA GAG ATC CAAT CAA TAFSS-SLF16 (genotyping)SS-FBX-SFCAC CTA ATT CCA ATA GAG CTC AAT CAA TAFSS-SLF16 (genotyping)SS-FBX-SFCAC CTA ATT CCA ATA GAG CTC AAT CAA TAFSS-SLF16 (genotyping)SS-FBX-SFCAC CTA ATT CCA ATA GAG CTC CAA AT CAAFSS-SLF16 (genotyping)SS-FBX-SFCAC CTA ATT CCA ATA GAG CTC AAT CAAFSS-SLF16 (genotyping)SS-FBX-SFCAC GAC GTA ATT CCA ATA GAG TCC AAT CAARSS-SLF16 (genotyping)SS-FBX-SFCAC GAC GTA ATT CCA ATA TTC CAC AAT CAARSS-SLF16 (genotyping)SS-FBX-SFAAA CCA TA CAA TAT TCC CAAA GAGFSS-SLF16 (genotyping)SS-FBX-SFAAA GCA TAT ACC GAA TAT TCC CAAAGRSS-FBX2 (genotyping)SS-FBX-SFAAA GCA TAT CAG GAA TTC TTG TAA CAASS-FBX2 (genotyping)SS-SLF10 (genotyping)SS-FBX-SFAAA GCA TAT GC TATA AAA GGA TTC TTG TAAFSS-SLF11 (genotyping)SS-FBX-SFCCA AGG AGG GAG AG
Allele-specific amplification to 55-SLF 94 ACA ATA TAG GAA TCC CAG ATG CT F 65-SLF 97 (genotyping) SLF S5-SLF 94 CTC TC ACG ACA GAA AGT TT TCA R S5-SLF 127 (genotyping) S5-SLF 124 CCG ATA ATG AAA TT GC ATA GAA CAT CAC CAT TAC C R S5-SLF 127 (genotyping) S5-SLF 144 CCG TAC AGT TAA GAT CAT CAC CAT TAC C R S5-SLF 167 (genotyping) S5-SLF 164 AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R S5-SLF 167 (genotyping) S5-SFBX.SF CAC CTA ATT CCA ATA GAG TCT AG GT ATA AAC GAG TCT TGG TG R S5-SLF 167 (genotyping) S5-FBX.SF CAC CTA ATT CCA TA GAT ATA CCC AAA GAG TAT F S5-SLF 167 (genotyping) S5-FBX.SF CAC CTA ATT CCA TA GAG ATA CCA CAA AGT CAT CAA TA F S5-SLF 167 (genotyping) S5-FBX.SF CAC CTA ATT CCA TA GAG ATT CCC AAAG CCA AAG R S5-FBX.2 (genotyping) S5-FBX.SF CAC GC CT GG TAA TCC CGA ATA GAG TTA R S5-FBX.2 (genotyping) S5-FBX.SF CAC GC CT GG TAA TCC TGC TAA GAG F S5-FBX.2 (genotyping) S5-FBX.SF CAC GC CT GG TAA TCC TGC TGA ATG CG R S5-FBX.2 (genotyping) S5-FBX.2-F1 AAA CG CT TC TC CA AAG TGT TGA ACG R
Allele-specific amplification for SS-SLP3+ ACA ATA TAG GAA TAG CAG ANG CT F SS-SLF3/ genotyping SLF S5-SLF3-R CCC TTC ACG ACA GAA AGT TTT TCA R S5-SLF3/ genotyping S5-SLF12F CCG ATA TAG AAA TGC CAT GAA GAT ATT G R S5-SLF12/ genotyping S5-SLF12R CCG TAC AGT ATA GAT CAT CAC CAT TAC C R S5-SLF12/ genotyping S5-SLF16F AAG GAC TAT GCT ATA AAC GAG TCT TGG TG R S5-SLF16/ genotyping S5-SLF16-F AAG GAC TAT GCT ATA AAC GAG TCT TGG TG R S5-SLF16/ genotyping, expression analys S5-FBX-SF CAC CTA ATT CCA ATA GAG TCT AAA TAC CA AT TA F S5-SLF18/ genotyping, expression analys S5-FBX2F1 AAA GC GAA CAA TAT TCC CA AAT CAA TA F S5-FBX2 / genotyping, expression analys S5-FBX2F1 AAA GC TA GCT TAC CTG TAA TCC TGG TGA TA R S5-FBX2 / genotyping, expression analysis S5-FBX2F1 AAA GCT CAG AAA TCC TGG TAA TCC TGG TGA TA R S5-FBX2 / genotyping, expression analysis S5-FBX2F1 AAA GCT CAG AAA TCT TGT TGG TGG TAA R S5-FBX2 / genotyping, expression analysis S5-FBX2F1 AAA GCT CAG AAA TCT TGT TGG TAG TAA R S5-FBX2 / genotyping, expression analysis S5-FBX2F2
Allele-specific amplification for SS-SLP3+ ACA ATA TA GUA TGC CTA ATG CAG ATG CT F SS-SLF3/ genotyping SLF SS-SLF12F CCG ATT ATG AAA TTG CAT GAG GAT ATT G R SS-SLF12/ genotyping SS-SLF12F CCG ATT ATG AAA TTG CAT GAG GAT ATT G R SS-SLF12/ genotyping SS-SLF12F CCG ATT ATG AAA TTG CAT CAC CAT TAC C R SS-SLF12/ genotyping SS-SLF16F AAG GAC TAT GCT ATA AAC GAG TT TGG TG R SS-SLF16/ genotyping SS-SLF16-F AAG GAC TAT GCT ATA AAC GAG TCT TGG TG R SS-SLF16/ genotyping SS-SLF3 CAC CTA ATT CCA ATA GAG TCT AAA TAA CAAA T F SS-SLF16/ genotyping, expression analysis SS-FBX2F1 AAG GAC TAT GCT AAT CCA ATA GAG TCT AAA TA F SS-FBX2 / genomic cloning SS-FBX2F1 AAA GCC AAA CAA TAT TCT CGA AAG GAG R SS-FBX2 / genotyping, expression analysis SS-FBX2F1 AAA GCC TG GTA TCC TGG TGA TA R SS-FBX2 / genotyping, expression analysis SS-FBX2F1 AAA GCC TAA TCC TGG TGA TA R SS-FBX2 / genotyping, expression analysis SS-FBX2F1 AAA GCC TGA AAT TCT TGA TGG AAG F SS-FBX2 / genotyping, expression analysis SS-FBX2F1 AAA GCC TG AT TCC TGA TAT TCT T
Allele-specific amplification for SDS-LDP+ ACA ATA TAG GAA TGC CGA GTA GCT F SDS-LDP/ genotyping SLF SS-SUF12-F CCG ATT ATG GAA TGC CAG GAA GGT TT TCA R SS-SUF12/ genotyping SS-SUF12-F CCG ATT ATG GAA TTG CAT GAA GAT ATT C R SS-SUF12/ genotyping SS-SUF12-F CCG ATC ACT TAG GAA TTG CAT GAA GAT ATT C R SS-SUF12/ genotyping SS-SUF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R SS-SUF16/ genotyping SS-SUF16-F AAG GAG TAT GGT ATA AAC GAG TCT TGG TG R SS-SUF16/ genotyping SS-SUF16-F AAG GAG TAT GGT ATA AAC GAG TCT GA TA F SS-SUF16/ genotyping, expression analysi SS-FBX-SF CAC TA ATT CC AAT GAG TAT CAG CA AAT CA F SS-SUF.92, Sm-SUF18/ genotyping, expression analysi SS-FBX2-F1 AAA AGT TGT CAG AAA TAT TCC CAA AGT CAG R SS-FBX2/ genotyping, expression analysis SS-FBX2-F1 AAA AGG CCT TGT AAT CCT CAA AGT TGT CAA F SS-FBX2/ genotyping, expression analysis SS-FBX2-F1 AAA CGC CT GGT TAT ACT CTG AAT TTC CAA F SS-FBX2/ genotyping, expression analysis SS-FBX2-F1 AAA GGC TGT CAA TAT TCC CAA AGT TGT CAA F SS-FBX2/ genotyping SS-FBX2-F1
Allele specific amplification of SS-SU-9+ ACA ATA TAG GAA TGC CAG ALG CT F SO-SU-7 genutyping SLF SS-SU-P4 CTC TC AGG ACG GAA AGT TT CCA R SS-SU-P4 genotyping SS-SU-F12/ CCG ATT ATG GAT TAG GAA TAT CCA CAC TAT CC R SS-SU-F12/ genotyping SS-SU-F12/ CCG ATT ATG GAT TAG GAT TAG CAC CAC TAT CC R SS-SU-F12/ genotyping SS-SU-F12/ SS-SU-F12/ Genotyping SS-SU-F12/ genotyping SS-SU-F12/ AGG GAC TAT GGT ATA AAC GAG TCT TGG TG R SS-SU-F16/ genotyping, expression analys SS-SU-F16-R AGG GAC TAT CCA ATA GAG TCT CAA TA SS-SU-F16/ genotyping, expression analys SS-FBX-SF SS-FBX-SF CAC CTA ATT CCA ATA GAG TCT CAA TA F SS-SU-F12/ genotyping, expression analys SS-FBX-F1 AAA CCA TA AC CAT GAG ATA TCC CCA AAG TAC R SS-FBX2/ genotyping, expression analys SS-FBX2-F2 ACG GCC TG TAA TCC TCC CAA AGT ATT TCCA R SS-FBX2/ genotyping, expression analysis SS-FBX2-F1 AAA GC TC TCC CAA AGT ATT TCCA R SS-FBX2/ genotyping, expression analysis SS-FBX2-F2 ACG GCC TG TAA TCC TCC CAA AGT ATT ACT CCA R SS-FBX2/ genotyping, expression analysis SS-FBX2-F1
Algele specific amplification of 59-SU-9+ ACA XTA TAG GAA AGT TT TO CA F 59-SU-94 SLF S5-SU-94 CTC TC AGG ACA GAA AGT TT TO CA R S5-SUF12/genotyping S5-SUF12-R CCG ATT AG GAA AGT TT TO CAC CAT TAC C R S5-SUF12/genotyping S5-SUF12-R CCG ATT AG GAA AGT CAT CAC CAT TAC C R S5-SUF12/genotyping S5-SUF14 CCG TA TA GG TAT AAA GAG CTT TG GT G F S5-SUF16/genotyping S5-SUF15 AAG GAG TAT GGT ATA AAC GAG TCT TG GT G R S5-SUF16/genotyping, expression analysi S5-FBX-SFR TAC C TA ATT CCA ATA GAG TCT AGA TAC F S5-SUF16/genotyping, expression analysi S5-FBX-SFR TAC TG GA AAA TCC TGG TGA TA R S5-SUF16/genotyping, expression analysi S5-FBX2-F1 AAA GG GT G TAA TCC TGA ATG GAG R S5-FBX2-f1/genotyping, expression analysis S5-FBX2-F1 AAA GG TG CAG AAA TCC TGG TGA TA R S5-FBX2-f2/genotyping, expression analysis S5-FBX2-F2 AGG GC CT GT ATC CTG AAA TCC TGG TGA TA R S5-FBX2-f2/genotyping, expression analysis S7-SUF14-F GT GA AAA TCC TCC CAA AGT TAT CAC R S7-SUF14/genotyping S7-SUF14/genotyping S7-SUF14 TCC AAG GAC TATA

	S9-SLF11-F	CTA AAA CAT GGT ACG CGC TCG TC	F S9-SLF11 / genotyping
	S9-SLF11-R	AAC TAA CTT GTA ATA ATT TTC AGC CAG GG	R S9-SLF11 / genotyping
	S9-SLF13-F	TTT ACG GTG TTG GAT TTG GCG	F S9-SLF13 / genotyping
	S9-SLF13-R	ATA TTG CCA AAG GGG ATT CGA C	R S9-SLF13 / genotyping
	S9-SLF15-F	GTG GTC TTG GTG ATG ATG ATC TTT G	F S9-SLF15 / genotyping
	S9-SLF15-R	AAA AAA AAG AAT TAC CAT TGT ATT TGC AC	R S9-SLF15 / genotyping
	S9-FBX1-F1	AGA GTG CAA CAT CGT ATA ACA GAG CC	F S9-FBX1 / 3' RACE, genomic PCR
	S9-FBX1-F2	CAA TGG ACC TAG TTA TGG CCT CCT	F S9-FBX1 / 3' RACE, genotyping, expression analysis
	S9-FBX1-R1	AGA TTT GGT GGG TAT TCG GTG CTA	R S9-FBX1 / genomic PCR, genotyping, expression analysis
	S11-SLF8-F	CAG CGA CGA TCT TAT CCC CAT TA	F S11-SLF8 / aenotyping
	S11-SLF8-R	CAT CAT TAT CCA AAT GTC CAT TAA ATC A	B S11-SLF8 / genotyping
	S11-SLF11-F	CTG ATG AAC TCA AGG AAT TCA ATT TCA G	F S11-SLF11 / genotyping
	S7/S11-SLF11-R	TTC TCA AAG AAA TTG TAA CAG ATT AGT GCC	R S11-SLF11 / genotyping
	S11-FBX1-F1	TTA CCC CTA CCC AGA GCC TGT G	F S11-FBX1 / 3' BACE, genomic PCB
	S11-FBX1-F2	GGA TTA AAA AGT ACA CAA TTA CAG GCC	E S11-FBX1/3' BACE genotyping expression analysis
	S11-FBX1-B1		B S11-FBX1 / 5' BACE genotyping, expression analysis
	S11-EBX1-R2		R S11-ERX1 / 5' RACE genomic PCR
			E S17 CLERA / constraints
		GAA ACA TTT TTT ATT GCA TTG AAG AGA AC	
	ST7-SLF8A-F	GAA TCT TTT GTT GGA TCC ATC TTG TTA	R S17-SLF8A / genotyping
	S17-SLF12B-F	AAG ATG CTG GAC GGA ATT ATT ATG AAG	F S17-SLF12B/CW/genotyping
	S17-SLF12B-R	CTC TCT CCC TAT TCA GGA TAC CCG A	R S17-SLF12B/Cψ / genotyping
	S19-SLF10B-F	CAA GTA GTC CAA CAG AAA AAT TCA CG	F S19-SLF10B / genotyping
	S19-SLF10B-R	TTT CAT AAT GGA GGC AAA AGA AGC	R S19-SLF10B / genotyping
	S19-FBX1-F	CCT GGT GAT TTT GTG TAA GTC GCT	F S19-FBX1, S0m-FBX1 / 3' RACE, genotyping
	S19-FBX1-R	GTT AGG TTG TTG CCG AAA TCA AAG	R S19-FBX1 / genomic PCR, genotyping
	S19-FBX2-F	CTT CTT CCT ATT GAA TCC CCG TTG	F S19-FBX2, S0m-FBX2 / 3' RACE, genomic PCR, genotyping
	S19-FBX2-R	GTG AGT ATC TAA AAT GGT TGA ACT TCA GC	R <i>S19-FBX2</i> /genomic PCR, genotypig
	S19-FBX3-F1	AAA TAC ACA CTA GAA TGT TAA GAG TCA	F S19-FBX3 / 3 'RACE, genomic PCR
	S19-FBX3-F2	AGA AGT TTA CTG GAT AGA TCA TGG	F S19-FBX3 / 3' RACE, genomic PCR, genotyping
	S19-FBX3-R1	GCT AAT GGA GAT ACA ATA CGA AGA	R S19-FBX3 / genomic PCR, genotyping
	SLF9-F2	GCC GTG GTA CCA AAA AGG CAA	F S0m-FBX2, Type-9 SLFs, S19-FBX1 and 2 / genomic PCR
	S0m-FBX2-R	TGG AAG GAA ATG GAG ATA ATG TTG AAA	R S0m-FBX2 / genomic PCR
S-RNases amplification	SRNC1-U	HWK GCA ACT MGT ITT AAC ATG GCC	F S-RNase conserved region 1
	SRNC5-L	WSG VKY RAA RCA TAT ICC TAT CTC	R S-RNase conserved region 5
Allele-specific amplification for	or S0m-RN-F	ACT TCA GAA TGT TTC AGT TTC AG	F S0m-RNase / genotyping
S-RNase	S0m-RN-R	AAC AGG TTT ACT TTT GCT AAT TAT	R S0m-RNase / genotyping
	S22-RN-F	TTT TCG TCT AGA GTT CTG TCC TGG C	F S22-RNase / genotyping
	S22-RN-R	CGC ATT TGA GGT CAG GAT CTT TG	R S22-RNase / genotyping
	S10-RN-F	GGC CAG ATA ATG AGC AAA GAC GT	F S10-RNase / genotyping
	S10-RN-R	CAA AAA AGA AAG AAA TGG AAA GTC AAA C	R S10-RNase / genotyping
	Sm-RN-F	AGA ATT GCC CGA TAA AAC CG	F Sm-RNase / genotyping
	Sm-RN-R	TTC TGA TTG ACT GTA GAC ATC TG	R Sm-RNase / genotyping
Vector construction	S5-T3-BamHI-F	AAG GAT CCA TGA CGG CCA TGA AGA AAT TGC	F Cloning of S5-SLF3 ORF
	S11-T3-Sacl-R	AAT GAG CTC TAA AAA TTC TGA ACT TGT GTA CTA C	R Cloning of S5-SLF3 ORF
	T9-BamHI-F	TGG ATC CAT GAA GGA ATT GCC CCA AG	F Cloning of S7- and S11-SLF9s ORF
	T9-SacI-R	AGA GCT CTC CCC ACT TCT AAA ATT GTT CAA	R Cloning of S7- and S11-SLF9s ORF
Transgene detection	SLF3-F1	CAT TCA ATT GTC CTA GTG TGA TGG AGT	F S5-SLF3-transgene / genotyping, expression analysis
	SLF9/10-F1	AAT GAA GGA ATA CGG TGA AAA GGA G	F S7- and S11-SLF9-transgene / genotyping, expression analysis
	NosR	ACC GGC AAC AGG ATT CAA TC	R Nos terminator / genotyping, expression analysis
RT-PCR control	UB-F	CCT AAC CGG CAA AAC CAT CAC CT	F Petunia ubiquitin / expression analysis
	UB-R	GCA CTT ATC AAC AGG ACG ACA ACA	R Petunia ubiquitin / expression analysis

Supplementary Table 3 Summary of pairwise peptide-sequence identities among S-genes

(a) Type-1 SLFs Max. = 1	00.0 % Min. =	86.1 %	Ave. =	92.0 %
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S17-SLF4Bψ

S9-SLF4

S17-SLF4

S10-SLF4

PRS-SLF1 97.2 % 96.1 % 90.2 % 92.5 % 97.2 % 97.2 % 97.7 % 97.7 % 97.9 % 94.3 % 90.0 % 89.7 % 99.7 % 99.1 % 99.7 % 99.1 % 99.1 % 99.1 % 99.1 % 99.1 % 99.7 % 99.1 % 99.7 % 99.7 % 99.1 % 99.7 % 99.7 % 99.1 % 99.7 % 99.1 % 99.1 % 99.7	PiS5-SLF1 S9-SLF1 Sm-SLF1 S22-SLF1 PiS11-SLF S11-SLF1 S7-SLF1	97.2 %					37-3611	519-5LF1	SIU-SLFI	S5-SLF1	S0m-SLF1	S19-SLF1B	PiS2-SLF1	S7-SLF1B	PiS13-SLF1	PiS7-SLF1	PIS1-SLF1	SI/-SLFID	51/-SLF1	PIS3-SLF1		
SP3LF1 96.4 % 90.2 % 92.5 % 97.4 % 97.9 % 97.4 % 97.9 % 97.7 % 94.6 % 92.8 % 90.2 % 89.7 % 89.7 % 89.7 % 89.7 % 89.2 % 86.3 % 86.4 % SmSLF1 - 91.8 % 90.0 % 91.0 % 90.0 % 91.0 % 90.0 % 91.0 % 90.0 % 91.0 % 90.0 % 91.0 % 90.0 % 91.0 % 90.0 % 91.0 % 92.8 % 93.1 % 93.1 % 91.1 % 90.0 % 91.0 % 92.8 % 90.0 % 91.0 % 91.0 % 92.8 % <td< td=""><td>S9-SLF1 Sm-SLF1 S22-SLF1 PiS11-SLF S11-SLF1 S7-SLF1</td><td>-</td><td>96.1 %</td><td>90.2 %</td><td>92.8 %</td><td>92.5 %</td><td>97.2 %</td><td>97.2 %</td><td>98.2 %</td><td>97.7 %</td><td>97.7 %</td><td>97.9 %</td><td>94.9 %</td><td>94.3 %</td><td>90.0 %</td><td>90.0 %</td><td>89.5 %</td><td>89.7 %</td><td>86.6 %</td><td>86.4 %</td><td></td></td<>	S9-SLF1 Sm-SLF1 S22-SLF1 PiS11-SLF S11-SLF1 S7-SLF1	-	96.1 %	90.2 %	92.8 %	92.5 %	97.2 %	97.2 %	98.2 %	97.7 %	97.7 %	97.9 %	94.9 %	94.3 %	90.0 %	90.0 %	89.5 %	89.7 %	86.6 %	86.4 %		
Sm-SLF1 · 90.5% 92.0% 91.8% 90.0% 97.9% 96.9% 96.9% 96.7% 94.1% 90.2% 89.5% 88.9% 86.6% 86.1% S22SLF1 · · 91.2% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 92.8% 93.1% 93.1% 93.1% 93.1% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 91.0% 93.1% 93.1% 93.1% 93.3% 95.6% 91.8% 90.0% 97.9% 97.7% 95.6% 93.1% 91.3% 90.0% 87.4% <td>Sm-SLF1 S22-SLF1 PiS11-SLF S11-SLF1 S7-SLF1</td> <td></td> <td>96.4 %</td> <td>90.2 %</td> <td>92.5 %</td> <td>92.5 %</td> <td>97.4 %</td> <td>97.4 %</td> <td>97.9 %</td> <td>97.4 %</td> <td>97.9 %</td> <td>97.7 %</td> <td>94.6 %</td> <td>92.8 %</td> <td>90.2 %</td> <td>89.7 %</td> <td>89.7 %</td> <td>89.2 %</td> <td>86.3 %</td> <td>86.4 %</td> <td></td>	Sm-SLF1 S22-SLF1 PiS11-SLF S11-SLF1 S7-SLF1		96.4 %	90.2 %	92.5 %	92.5 %	97.4 %	97.4 %	97.9 %	97.4 %	97.9 %	97.7 %	94.6 %	92.8 %	90.2 %	89.7 %	89.7 %	89.2 %	86.3 %	86.4 %		
S22SLF1 - 91.0% 91.0% 91.0% 91.0% 91.0% 91.3% 90.7% 92.8% 93.0% 91.0% 99.0% 88.9% 88.9% 88.4% 87.6% 87.4% S11-SLF1 - - 97.4% 92.8% 92.8% 93.1% 93.1% 93.1% 93.1% 93.1% 93.3% 96.1% 91.0% 89.9% 88.9% 88.9% 88.9% 87.4% 87.1% 93.3% 93.1% 93.1% 93.1% 93.1% 93.1% 90.5% 90.2% 90.0% 87.4% 87.1% 85.1% 90.2% 90.0% 87.4% 87.4% 87.4% 87.4% 87.4% 87.4% 87.4% 87.4% 87.4% 87.4% <td>S22-SLF1 PiS11-SLF S11-SLF1 S7-SLF1</td> <td></td> <td>-</td> <td>90.5 %</td> <td>92.0 %</td> <td>91.8 %</td> <td>99.0 %</td> <td>99.0 %</td> <td>97.9 %</td> <td>96.9 %</td> <td>96.9 %</td> <td>96.7 %</td> <td>94.6 %</td> <td>94.1 %</td> <td>90.2 %</td> <td>89.5 %</td> <td>89.2 %</td> <td>88.9 %</td> <td>86.6 %</td> <td>86.1 %</td> <td></td>	S22-SLF1 PiS11-SLF S11-SLF1 S7-SLF1		-	90.5 %	92.0 %	91.8 %	99.0 %	99.0 %	97.9 %	96.9 %	96.9 %	96.7 %	94.6 %	94.1 %	90.2 %	89.5 %	89.2 %	88.9 %	86.6 %	86.1 %		
PB11-SLF1 · 97.4 % 93.1 % 92.8 % 93.3 % 93.1 % 93.3 % 96.1 % 91.0 % 89.9 % 88.9 % 89.5 % 87.6 % 87.4 % S11-SLF1 · · 92.8 % 92.8 % 92.8 % 93.1 % 93.3 % 95.6 % 91.8 % 90.7 % 89.9 % 88.9 % 89.5 % 87.6 % 87.4 % 87.1 % S15-SLF1 · · 100.0 % 99.0 % 97.9 % 97.9 % 97.7 % 95.6 % 93.1 % 91.3 % 90.5 % 90.2 % 90.0 % 87.4 % 87.1 % S15-SLF1 · · · · · 99.0 % 97.9 % 97.7 % 95.6 % 93.1 % 90.5 % 90.2 % 90.0 % 87.4 % 87.4 % Sto-SLF1 · · · · · 97.9 % 97.7 % 95.6 % 93.3 % 90.5 % 90.2 % 87.4 % 87.4 % 87.4 % Sto-SLF1 · · · · · 97.9 % 97.7 % 95.6 % 93.3 % 90.5 % 87.4 % 87.4	PiS11-SLF S11-SLF1 S7-SLF1			-	91.2 %	91.0 %	91.0 %	91.0 %	90.5 %	91.0 %	91.3 %	90.7 %	92.8 %	93.0 %	91.0 %	88.9 %	88.2 %	88.4 %	87.6 %	86.6 %		
Still SLF1 Still SLF1 <td>S11-SLF1 S7-SLF1</td> <td>1</td> <td></td> <td></td> <td>-</td> <td>97.4 %</td> <td>93.1 %</td> <td>93.1 %</td> <td>92.8 %</td> <td>93.3 %</td> <td>93.1 %</td> <td>93.1 %</td> <td>93.3 %</td> <td>96.1 %</td> <td>91.0 %</td> <td>89.9 %</td> <td>88.9 %</td> <td>89.5 %</td> <td>87.6 %</td> <td>87.4 %</td> <td></td>	S11-SLF1 S7-SLF1	1			-	97.4 %	93.1 %	93.1 %	92.8 %	93.3 %	93.1 %	93.1 %	93.3 %	96.1 %	91.0 %	89.9 %	88.9 %	89.5 %	87.6 %	87.4 %		
Shouli i 1000% 99.0% 97.9% 97.9% 97.7% 95.6% 93.1% 91.3% 90.5% 90.2% 90.0% 87.4% 87.1% Sibsleri - 99.0% 97.9% 97.9% 97.7% 95.6% 93.1% 91.3% 90.5% 90.2% 90.0% 87.4% 87.1% Sibsleri - - 98.5% 97.9% 97.7% 95.6% 93.1% 90.5% 90.2% 90.0% 87.4% 87.1% Sibsleri - 98.5% 97.9% 97.7% 95.6% 93.1% 90.7% 90.2% 90.0% 87.4% 87.7% Sibsleri - 97.9% 96.7% 96.2% 95.6% 93.3% 91.5% 90.7% 90.2% 89.7% 87.4% 87.7% Sibsleri - 97.9% 96.5% 93.3% 91.5% 90.7%	S7-SLF1						92.8 %	92.8 %	92.8 %	93.1 %	92.8 %	93.1 %	93.3 %	95.6 %	91.8 %	90.7 %	89.2 %	89.2 %	87.3 %	87.1 %		
Should in shoul	37-3EFT						02.0 /0	100.0 %	00.0 %	07.0 %	07.0 %	07.7 %	95.6 %	03.1 %	01.3 %	00.5 %	00.2 %	90.0 %	87.4 %	87.1 %		
S19-SLF1 -<	C10 CI E1						-	100.0 %	00.0 %	07.0%	07.0%	077%	95.6 %	03.1 %	01.3 %	00.5 %	00.2 %	90.0 %	87.4 %	87.1%		
S10-SLP1 - 36.7 % 90.7 % 90.7 % 90.2 % 90.2 % 90.2 % 90.2 % 87.4 % 87.4 % S0-7 % 97.9 % 98.2 % 95.6 % 95.1 % 90.7 % 90.2 % 80.7 % 80.7 % 80.7 % 80.7 % 80.7 % 80.7 % 87.4 % <	010 CLE1							- 1	33.0 /8	00 5 0/	07.0 %	00 7 %	05.0 %	02 1 0/	00.7.9/	00.5 %	00.2 %	30.0 %	07.4 /0	07.1 /0		
S352LF1 - 01.3 x 00.2 x 00.3 x 01.3 x 00.2 x 00.2 x 00.1 x 01.4 x	STU-SEFT									90.0 %	97.9 %	00.7 %	05.6 %	02.2.0/	01.2.9/	90.5 %	90.2 %	90.0 %	00.9 %	00.0 %		
SumsLr1 - 37.7 % 93.0 % 90.7 % 90.3 % 90.7 % 90.3 % 90.7 % 90.2 % 67.4 % 67.4 % S19SLF18 - 94.9 % 92.3 % 90.2 % 89.7 % 90.5 % 88.7 % 88.4 % S7-SLF18 - 92.8 % 91.5 % 90.5 % 88.7 % 88.7 % 88.7 % PIST-SLF1 - 92.8 % 91.5 % 90.5 % 88.7 % 88.7 % PIST-SLF1 - 92.0 % 91.0 % 90.5 % 88.7 % 88.7 % PIST-SLF1 - 92.0 % 91.0 % 90.5 % 88.7 % 89.5 % PIST-SLF1 - 92.0 % 91.0 % 90.5 % 88.7 % S17-SLF2 Max. = 88.3 % Min. = 72.8 % Ave. = 82.4 % - - 88.1 % 87.4 % (b) Type-2 SLFs Max. = 88.3 % Min. = 72.8 % Ave. = 82.4 % (c) Type-3 SLFs Max. = 99.0 % Min. = 72.0 % Ave. = 88.9 % S17-SLF2 S17-SLF2 S19-SLF2 S09.5 % 83.5 % 85.9 % 72.8 % S5-SLF3 S19-SLF3 <	33-3LFT										31.3 %	90.2 %	95.0 %	95.5 %	91.3 %	90.2 %	90.2 %	00.0 %	07.4 %	07.4 %		
S19-SLF1B - 94.8 % 90.1 % 90.1 % 90.1 % 90.2 % 88.7 % 88.4 % S7-SLF2 S17-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF3 S	SUM-SLF1										-	97.7 %	95.0 %	95.1 %	90.7 %	90.5 %	09.7 %	90.2 %	07.4 %	07.1 %		
Pisz-sLF1 - 90.7 % 90.2 % 89.7 % 90.5 % 88.7 % 88.4 % 88.7 % 88.4 % 88.4 % 87.4 % 88.4 % 87.4 % 88.4 % 87.4 % 88.4 % 87.4 % 88.4 % 87.4 %	S19-SLF1E	5										-	94.9 %	93.3 %	91.5 %	90.7 %	90.7 %	90.5 %	07.0 %	07.4 %		
Sr-Surials - 102.0% 91.5% 90.2% 87.9% 88.7% 89.5% PIS13-SLF1 - 92.0% 91.0% 90.2% 87.1% 89.5% PIS13-SLF1 - 92.0% 91.0% 90.2% 87.1% 89.5% PIS13-SLF1 - 91.5% 91.0% 91.0% 87.1% 88.7% S17-SLF1 - 89.5% 87.4% 88.4% 87.4% 88.4% S17-SLF3 Max. = 88.3% Min. = 72.8% Ave. = 82.4% (c) Type-3 SLFs Max. = 99.0% Min. = 72.0% Ave. = 88.9% S17-SLF2 S11-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF3 S11-SLF S11-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF	PIS2-SLF1												-	95.4 %	92.3 %	90.2 %	89.7%	90.5 %	88.7 %	88.4 %		
Pist3-sLF1 - 92.0 % 91.0 % 90.5 % 88.7 % 89.5 % Pist3-sLF1 - 91.5 % 91.0 % 91.0 % 80.7 % 88.7 % Pist3-sLF1 - 91.5 % 91.0 % 87.1 % 88.7 % Pist3-sLF1 - 89.5 % 87.4 % 88.4 % S17-sLF1 - 88.1 % 87.4 % 88.4 % (b) Type-2 SLFs Max. = 88.3 % Min. = 72.8 % Ave. = 82.4 % (c) Type-3 SLFs Max. = 99.0 % Min. = 72.0 % Ave. = 88.9 % S17-sLF2 S17-sLF2 S19-sLF2 S19-sLF3 S19-	S7-SLF1B													-	92.8 %	91.5 %	90.5 %	90.2 %	87.9%	88.7 %		
ris/-sLF1 - 91.5 % 91.0 % 87.4 % 88.7 % Pis/-sLF1 - 89.5 % 87.4 % 88.7 % 87.4 % si7-sLF1 - 88.3 % Min. = 72.8 % Ave. = 82.4 % - 88.9 % (b) Type-2 SLFs Max. = 88.3 % Min. = 72.8 % Ave. = 82.4 % (c) Type-3 SLFs Max. = 99.0 % Min. = 72.0 % Ave. = 88.9 % S17-SLF2 S11-SLF2 S15-SLF2 S19-SLF2 S17-SLF2 S19-SLF3 S11-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 <td< td=""><td>PIS13-SLF</td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>92.0 %</td><td>91.0%</td><td>90.5 %</td><td>88.7%</td><td>89.5 %</td><td></td></td<>	PIS13-SLF	1													-	92.0 %	91.0%	90.5 %	88.7%	89.5 %		
PR51-SLF1 - 89.5 % 87.4 % 88.4 % 87.4 % S17-SLF1 - 88.1 % 87.4 % 88.4 % (b) Type-2 SLFs Max. = 88.3 % Min. = 72.8 % Ave. = 82.4 % (c) Type-3 SLFs Max. = 99.0 % Min. = 72.0 % Ave. = 88.9 % S17-SLF1 S17-SLF2 S11-SLF2 S19-SLF2 S19-SLF2 S11-SLF2 S11-SLF2 S11-SLF3 S10-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S12-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S12-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S12-SLF3 S11-SLF3 S12-SLF3 S11-SLF3 S11-SLF3 S1	PIS7-SLF1																91.5 %	91.0 %	87.1%	88.7 %		
S17-SLF18 - 88.1 % 87.4 % S17-SLF1 - 86.1 % 87.4 % (b) Type-2 SLFs Max. = 88.3 % Min. = 72.8 % Ave. = 82.4 % (c) Type-3 SLFs Max. = 99.0 % Min. = 72.0 % Ave. = 88.9 % S17-SLF2 S17-SLF2 S11-SLF2 S19-SLF2 S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S10-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S12-SLF3 S19-SLF3 S11-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S10-SLF3 S11-SLF3 S12-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S12-SLF3 S11-SLF3 S12-SLF3 S11-SLF3 S12-SLF3 S11-SLF3 S12-SLF3 S11-SLF3 S12-SLF3	PiS1-SLF1	_																89.5 %	87.4 %	88.4 %		
S17-SLF1 (b) Type-2 SLFs Max. = 88.3 % Min. = 72.8 % Ave. = 82.4 % (c) Type-3 SLFs Max. = 99.0 % Min. = 72.0 % Ave. = 88.9 % S17-SLF2 S17-SLF2 S11-SLF2 S19-SLF2 S19-SLF2 S19-SLF3 S19-SL	S17-SLF1E	3																-	88.1 %	87.4 %		
(b) Type-2 SLFs Max. = 88.3 % Min. = 72.8 % Ave. = 82.4 % (c) Type-3 SLFs Max. = 99.0 % Min. = 72.0 % Ave. = 88.9 % S17-SLF2 S11-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF3	S17-SLF1																			86.4 %		
S17-SLF2 S11-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S7-SLF2 87.1 % 84.7 % 85.2 % 83.9 % 83.5 % 85.9 % 72.8 % S17-SLF3 91.0 % 98.7 % 98.2 % 97.9 % 97.1 % 97.4 % 89.0 % S17-SLF2 84.4 % 85.3 % 86.2 % 74.5 % S17-SLF3 91.0 % 98.7 % 98.2 % 97.9 % 97.1 % 97.4 % 89.0 %	(b) Type-2 SLFs	Max. =	88.3 %	Min. =	72.8 %	Ave. =	82.4 %			(c) Type-	3 SLFs	Max. =	99.0 %	Min. =	72.0 %	Ave. =	88.9 %					
S17-SLF2 S11-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S19-SLF2 S11-SLF2 S11-SLF3 S10-SLF3 S19-SLF3																						
S7-SLF2 87.1 % 84.7 % 85.2 % 83.9 % 83.5 % 85.9 % 72.8 % S5-SLF3 99.0 % 99.7 % 97.1 % 97.1 % 97.1 % 97.4 % 89.0 % S17.SLF2 - 84.4 % 85.3 % 85.3 % 86.2 % 74.5 % S17.SLF2 - 97.0 % 97.1 % 97.1 % 97.4 % 89.0 %		S17-SLF2	\$11-SI E2																			
S17 SI F2 - 84.4 % 85.3 % 85.3 % 85.8 % 86.2 % 74.5 % S17 SI F2 - 07.0 % 07.7 % 07.1 % 06.0 % 06.1 % 06.1 % 06.4 % 00.7 %			011-0EL	S5-SLF2	S19-SLF2	Sm-SLF2	S0m-SLF2	PiS1-SLF2				S17-SLF3	S10-SLF3	S22-SLF3	S19-SLF3	PiS2-SLF3	S0m-SLF3	Sm-SLF3	S9-SLF3	S11-SLF3	S	
	S7-SLF2	87.1 %	84.7 %	S5-SLF2 85.2 %	S19-SLF2 83.9 %	Sm-SLF2 83.5 %	S0m-SLF2 85.9 %	PiS1-SLF2 72.8 %			S5-SLF3	S17-SLF3 99.0 %	S10-SLF3 99.0 %	S22-SLF3 98.7 %	S19-SLF3 98.2 %	PiS2-SLF3 97.9 %	S0m-SLF3 97.1 %	Sm-SLF3 97.1 %	S9-SLF3 97.4 %	S11-SLF3 89.0 %	S	
S11-SLF2 - 83.3 % 82.6 % 82.8 % 86.2 % 73.5 % S10-SLF3 - 98.2 % 97.7 % 97.9 % 97.1 % 96.6 % 97.4 % 89.5 %	S7-SLF2 S17-SLF2	87.1 % -	84.7 % 84.4 %	85-SLF2 85.2 % 85.3 %	S19-SLF2 83.9 % 85.3 %	Sm-SLF2 83.5 % 83.8 %	S0m-SLF2 85.9 % 86.2 %	PiS1-SLF2 72.8 % 74.5 %			S5-SLF3 S17-SLF3	S17-SLF3 99.0 % -	S10-SLF3 99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 %	S19-SLF3 98.2 % 97.1 %	PiS2-SLF3 97.9 % 96.9 %	S0m-SLF3 97.1 % 96.1 %	Sm-SLF3 97.1 % 96.1 %	S9-SLF3 97.4 % 96.4 %	S11-SLF3 89.0 % 88.7 %	S	
S5-SLF2 - 85.1 % 84.6 % 83.7 % 74.7 % S22-SLF3 - 98.4 % 97.9 % 96.9 % 95.8 % 96.1 % 89.0 %	S7-SLF2 S17-SLF2 S11-SLF2	87.1 %	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 %	Sm-SLF2 83.5 % 83.8 % 82.8 %	S0m-SLF2 85.9 % 86.2 % 86.2 %	PiS1-SLF2 72.8 % 74.5 % 73.5 %			S5-SLF3 S17-SLF3 S10-SLF3	S17-SLF3 99.0 % -	S10-SLF3 99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 %	PiS2-SLF3 97.9 % 96.9 % 97.9 %	S0m-SLF3 97.1 % 96.1 % 97.1 %	Sm-SLF3 97.1 % 96.1 % 96.6 %	S9-SLF3 97.4 % 96.4 % 97.4 %	S11-SLF3 89.0 % 88.7 % 89.5 %	S	
S19-SLF2 - 86.2 % 87.7 % 75.0 % S19-SLF3 - 97.1 % 96.4 % 95.6 % 95.6 % 88.2 %	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2	87.1 %	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 %	\$19-SLF2 83.9 % 85.3 % 82.6 % 85.1 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 %	S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 %	PiS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3	S17-SLF3 99.0 % -	99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PiS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 %	S	
Sm-SLF2 - 88.3 % 75.2 % PiS2-SLF3 - 97.7 % 96.6 % 95.8 % 89.5 %	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2	87.1 %	84.7 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 %	PiS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3	S17-SLF3 99.0 %	S10-SLF3 99.0 % 97.9 % -	S22-SLF3 98.7 % 97.7 % 98.2 % -	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PiS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 %	S	
<u>S0m-SLF2</u> - 76.0 % S0m-SLF3 - 95.8 % 95.6 % 88.2 %	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 Sm-SLF2	87.1 % -	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	S0m-SLF2 85.9 % 86.2 % 83.7 % 87.7 % 88.3 %	PiS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 PIS2-SLF3	S17-SLF3 99.0 %	S10-SLF3 99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PiS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 96.6 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.8 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.5 %	S'	
Sm-SLF3 - 95.1 % 87.4 %	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 Sm-SLF2 S0m-SLF2	87.1 %	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	S0m-SLF2 85.9 % 86.2 % 83.7 % 87.7 % 88.3 %	PiS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 PIS2-SLF3 S0m-SLF3	S17-SLF3 99.0 % -	S10-SLF3 99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PiS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 96.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.8 % 95.6 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.5 % 88.2 %	S1	
\$9-\$LF3 - 89.3 %	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 Sm-SLF2 S0m-SLF2	87.1 %	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	S0m-SLF2 85.9 % 86.2 % 83.7 % 87.7 % 88.3 %	PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 PiS2-SLF3 S0m-SLF3 Sm-SLF3	99.0 %	99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PiS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 96.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.6 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.5 % 88.2 % 87.4 %	S	
S11-SLF3 -	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 Sm-SLF2 S0m-SLF2	87.1 %	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % -	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	Som-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 % 88.3 %	PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 PiS2-SLF3 S0m-SLF3 Sm-SLF3 S9-SLF3	S17-SLF3 99.0 %	<u>\$10-SLF3</u> 99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 96.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.8 % 95.6 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.5 % 88.2 % 87.4 % 89.3 %	S1	
S11-SLF3B	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 Sm-SLF2 S0m-SLF2	87.1 %	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	Som-SLF2 85.9 % 86.2 % 86.2 % 86.7 % 87.7 % 88.3 %	PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 PiS2-SLF3 S0m-SLF3 Sm-SLF3 S9-SLF3 S11-SLF3	S17-SLF3 99.0 %	<u>\$10-SLF3</u> 99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 % - -	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 95.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.6 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.5 % 88.2 % 87.4 % 89.3 %	SI	
(d) Type-4 SI Fs Max = 97.3 % Min = 89.4 % Ave = 93.4 %	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 Sm-SLF2 S0m-SLF2	87.1 %	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	Som-SLF2 85.9 % 86.2 % 86.2 % 86.7 % 87.7 % 88.3 %	PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 S0m-SLF3 S0m-SLF3 S9-SLF3 S11-SLF3 S11-SLF3	99.0 %	S10-SLF3 99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 % - <th -<="" td=""><td>PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %</td><td>S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %</td><td>Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 96.6 % 95.8 %</td><td>S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.1 %</td><td>S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 88.2 % 88.2 % 87.4 % 89.3 %</td><td>S1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7</td></th>	<td>PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %</td> <td>S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %</td> <td>Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 96.6 % 95.8 %</td> <td>S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.1 %</td> <td>S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 88.2 % 88.2 % 87.4 % 89.3 %</td> <td>S1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7</td>	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 96.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 88.2 % 88.2 % 87.4 % 89.3 %	S1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 Sm-SLF2 S0m-SLF2 (d) Type-4 SLFs	87.1 % - Max. =	84.7 % 84.4 %	S5-SLF2 85.2 % 85.3 % 83.3 % - -	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 % 88.3 %	PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 %			S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 PiS2-SLF3 S0m-SLF3 S0m-SLF3 S9-SLF3 S11-SLF3 S11-SLF3B	S17-SLF3 99.0 %	<u>\$10-\$LF3</u> 99.0 % 97.9 %	S22-SLF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 96.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 87.4 % 89.3 %	S1	
<u>11-91 FA SUM-91 FA SUM-91 FA SUM-91 FA SUM SUM SUM SUM SUM SUM SUM SUM SUM SUM</u>	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 Sm-SLF2 S0m-SLF2 (d) Type-4 SLFs	<u>87.1 %</u>	97.3 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % - - 89.4 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 %	S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 % 88.3 % - - 93.4 %	PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 %	S17-SI E4	S10.SI E4	S5-SLF3 S17-SLF3 S10-SLF3 S19-SLF3 PiS2-SLF3 S0m-SLF3 S9-SLF3 S11-SLF3 S11-SLF3 S11-SLF3	99.0 %	<u>\$10-SLF3</u> 99.0 % 97.9 %	\$22-\$LF3 98.7 % 97.7 % 98.2 %	S19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 97.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.6 % 95.8 % 95.6 % 96.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.8 % 95.6 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.0 % 89.5 % 89.5 % 89.5 % 89.5 % 89.3 %	S	
Still-SLF4 Still-	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 S0m-SLF2 S0m-SLF2 (d) Type-4 SLFs	Max. =	97.3 % S0m-SLF4 91.9 %	S5-SLF2 85.2 % 85.3 % 83.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % - - - 89.4 % PiS2-SLF4 93.7 %	Sm-SLF2 83.5 % 83.8 % 84.6 % 86.2 % - - - - - - - - - - - - - - - - - - -	S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 % 88.3 % - - - - - - - - - - - - - - - - - - -	PIS1-SLF2 72.8 % 74.5 % 73.5 % 73.5 % 75.0 % 75.0 % 75.0 % 75.0 % 76.0 %	\$17-SLF4 92 9 %	S10-SLF4 92 1 %	S5-SLF3 S17-SLF3 S10-SLF3 S12-SLF3 S19-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF4 89.4.9	<u>\$17-\$LF3</u> 99.0 %	<u>\$10-\$LF3</u> 99.0 % 97.9 %	\$22-\$LF3 98.7 % 97.7 % 98.2 %	519-5LF3 98.2 % 97.1 % 98.4 %	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 96.9 % 96.4 % 97.7 %	Sm-SLF3 97.1 % 96.1 % 96.6 % 95.8 % 96.6 % 95.8 %	\$9-5LF3 97.4 % 96.1 % 97.4 % 97.4 % 97.4 % 95.6 % 95.6 % 95.6 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.2 % 89.3 % 87.4 % 89.3 %	S	
Stil-SLF4 Som-SLF4 Sits-SLF4 Sits-SLF4 <th< td=""><td>S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 S0m-SLF2 (d) Type-4 SLFs S22-SLF4 S11-S1 F4</td><td>Max. = S11-SLF4 93.7 %</td><td>97.3 % 97.3 %</td><td>S5-SLF2 85.2 % 85.3 % 83.3 % - - - - - - - - - - - - - - - - - - -</td><td>S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % - - 89.4 % PIS2-SLF4 93.7 % 94.0 %</td><td>Sm-SLF2 83.5 % 83.8 % 84.6 % 86.2 % - - - - - - - - - - - - - - - - - - -</td><td>S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 88.3 % 93.4 % S17-SLF4Bψ 93.9 % 93.9 %</td><td>PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 % 95.9 SLF4 94.2 % 94.0 %</td><td>S17-SLF4 92.9 % 93.3 %</td><td>\$10-\$LF4 92.1 % 92.8 %</td><td>S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 S19-SLF3 Sm-SLF3 Sm-SLF3 S11-SLF3 S11-SLF3 S19-SLF4 89.4.4%</td><td>\$17-\$LF3 99.0 %</td><td><u>510-SLF3</u> 99.0 % 97.9 % -</td><td>\$22.\$LF3 98.7 % 97.7 % 98.2 %</td><td><u>s19-sLF3</u> 98.2 % 97.1 % 97.7 % 98.4 %</td><td>PIS2.SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %</td><td>S0m-SLF3 97.1 % 96.1 % 96.9 % 96.9 % 96.4 % 97.7 %</td><td>SmSLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 95.6 % 95.8 %</td><td>S9-SLF3 97.4 % 96.4 % 96.1 % 95.6 % 95.8 % 95.1 %</td><td>S11-SLF3 89.0 % 88.7 % 89.0 % 89.5 % 89.0 % 88.2 % 89.4 % 88.2 % 89.3 %</td><td>S</td></th<>	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 S0m-SLF2 (d) Type-4 SLFs S22-SLF4 S11-S1 F4	Max. = S11-SLF4 93.7 %	97.3 % 97.3 %	S5-SLF2 85.2 % 85.3 % 83.3 % - - - - - - - - - - - - - - - - - - -	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % - - 89.4 % PIS2-SLF4 93.7 % 94.0 %	Sm-SLF2 83.5 % 83.8 % 84.6 % 86.2 % - - - - - - - - - - - - - - - - - - -	S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 88.3 % 93.4 % S17-SLF4Bψ 93.9 % 93.9 %	PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 % 95.9 SLF4 94.2 % 94.0 %	S17-SLF4 92.9 % 93.3 %	\$10-\$LF4 92.1 % 92.8 %	S5-SLF3 S17-SLF3 S10-SLF3 S22-SLF3 S19-SLF3 S19-SLF3 Sm-SLF3 Sm-SLF3 S11-SLF3 S11-SLF3 S19-SLF4 89.4.4%	\$17-\$LF3 99.0 %	<u>510-SLF3</u> 99.0 % 97.9 % -	\$22.\$LF3 98.7 % 97.7 % 98.2 %	<u>s19-sLF3</u> 98.2 % 97.1 % 97.7 % 98.4 %	PIS2.SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 96.9 % 96.9 % 96.4 % 97.7 %	SmSLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 95.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 96.1 % 95.6 % 95.8 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.0 % 89.5 % 89.0 % 88.2 % 89.4 % 88.2 % 89.3 %	S	
S11-SLF4 S0m-SLF4 S5-SLF4 S17-SLF4 S17-SLF4 S10-SLF4	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 S0m-SLF2 (d) Type-4 SLFs S22-SLF4 S11-SLF4 S11-SLF4	Max. = S11-SLF4 93.7 %	97.3 % 97.3 % 91.9 % 91.8 %	S5-SLF2 85.2 % 85.3 % 83.3 % - - - - - - - - - - - - - - - - - - -	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % - 89.4 % PIS2-SLF4 93.7 % 94.0 %	Sm-SLF2 83.5 % 83.8 % 82.8 % 84.6 % 86.2 % - - - - - - - - - - - - - - - - - - -	S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 % 88.3 % - 93.4 % S17-SLF4Bψ 93.9 % 94.5 % 92.6 %	PIS1-SLF2 72.8 % 74.5 % 73.5 % 74.7 % 75.0 % 75.2 % 76.0 % 89-SLF4 94.2 % 94.0 % 93.3 %	<u>S17-SLF4</u> 92.9 % 93.3 %	<u>\$10-SLF4</u> 92.1 % 92.8 %	S5-SLF3 S17-SLF3 S10-SLF3 S19-SLF3 S19-SLF3 S19-SLF3 S0m-SLF3 S0m-SLF3 S11-SLF3 S11-SLF3 S11-SLF4 89.4 % 89.6 %	99.0 %	100%	\$22-\$LF3 98.7 % 97.7 % 98.2 %	s19-SLF3 98.2 % 97.1 % 97.7 % 98.4 %	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 96.1 % 96.9 % 96.4 % 97.7 %	SmSLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 95.8 %<	89-5LF3 97.4 % 96.4 % 97.4 % 97.4 % 96.1 % 95.6 % 95.8 % 95.8 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.5 % 89.5 % 89.2 % 87.4 % 89.3 %	S	
Stil-SLF4 Som-SLF4 SS-SLF4 Sil-SLF4	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 Sm-SLF2 S0m-SLF2 (d) Type-4 SLFs S22-SLF4 S11-SLF4 S0m-SLF2	87.1 % - - - - - - - - - - - - - - - - - - -	97.3 % 97.3 % 91.9 % 91.8 %	S5-SLF2 85.2 % 85.3 % 83.3 % - - - - - - - - - - - - - - - - - - -	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % -	Sm-SLF2 83.5 % 83.8 % 84.6 % 86.2 % - - - - - - - - - - - - - - - - - - -	S0n-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 % 88.3 % - - - - - - - - - - - - - - - - - - -	PIS1-SLF2 72.8 % 74.5 % 74.7 % 75.0 % 75.2 % 76.0 % 89-SLF4 94.2 % 94.0 % 93.3 %	S17-SLF4 92.9 % 93.3 % 92.1 %	S10-SLF4 92.1 % 92.8 % 92.1 %	S5-SLF3 S17-SLF3 S10-SLF3 S10-SLF3 S19-SLF3 S19-SLF3 S0m-SLF3 S0m-SLF3 S0m-SLF3 S11-SLF3 S11-SLF3 S11-SLF4 89.4 % 89.6 % 89.9 %	99.0 %	100% 100%	522-5LF3 98.7 % 97.7 % 98.2 %	s19-SLF3 98.2 % 97.1 % 97.7 % 98.4 % 98.4 %	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 96.1 % 96.9 % 96.4 % 97.7 %	SmSLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 95.8 %<	89-8LF3 97.4 % 96.4 % 96.4 % 97.4 % 96.1 % 95.6 % 95.8 % 95.6 %	S11-8LF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.5 % 89.2 % 89.3 %	S	
Kitz Strister Strister <th< td=""><td>S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 S0m-SLF2 S0m-SLF2 (d) Type-4 SLFs S22-SLF4 S11-SLF4 S0m-SLF4</td><td>Max. = S11-SLF4 93.7 %</td><td>97.3 % 97.3 % 91.9 % 91.8 %</td><td>S5-SLF2 85.2 % 85.3 % 83.3 % 83.3 % 83.3 % 85-SLF4 94.9 % 94.8 % 93.3 %</td><td>S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % - - 89.4 % PIS2-SLF4 93.7 % 94.0 % 92.6 % 96.3 %</td><td>Sm-SLF2 83.5 % 83.8 % 84.6 % 86.2 % - - - - - - - - - - - - - - - - - - -</td><td>S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 % 88.3 % - - - - - - - - - - - - - - - - - - -</td><td>PIS1-SLF2 72.8 % 74.5 % 74.7 % 75.0 % 75.2 % 76.0 % 89-SLF4 94.2 % 94.0 % 93.3 % 95.5 %</td><td>\$17-\$LF4 92.9 % 93.3 % 92.1 % 94.5 %</td><td>S10-SLF4 92.1 % 92.8 % 92.1 % 94.0 %</td><td>S5-SLF3 S17-SLF3 S10-SLF3 S10-SLF3 S10-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF4 89.4 % 89.9 % 90.9 %</td><td>\$17-\$LF3 99.0 %</td><td>100% 90.0% 97.9% - - 100% more than 2 more than 2 more than 2 more than 2</td><td>\$22-\$LF3 98.7 % 97.7 % 98.2 %</td><td>98.2 % 97.1 % 98.4 % -</td><td>PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %</td><td>S0m-SLF3 97.1 % 96.1 % 96.9 % 96.9 % 96.4 % 97.7 %</td><td>SmSLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 95.8 %</td><td>S9-SLF3 97.4 % 96.4 % 96.4 % 96.4 % 96.6 % 95.6 % 95.1 %</td><td>S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.3 % 87.4 % 89.3 %</td><td>81 7 7 7 7 7 7 7 7 7 7 7 7 7 7</td></th<>	S7-SLF2 S17-SLF2 S11-SLF2 S5-SLF2 S19-SLF2 S0m-SLF2 S0m-SLF2 (d) Type-4 SLFs S22-SLF4 S11-SLF4 S0m-SLF4	Max. = S11-SLF4 93.7 %	97.3 % 97.3 % 91.9 % 91.8 %	S5-SLF2 85.2 % 85.3 % 83.3 % 83.3 % 83.3 % 85-SLF4 94.9 % 94.8 % 93.3 %	S19-SLF2 83.9 % 85.3 % 82.6 % 85.1 % - - 89.4 % PIS2-SLF4 93.7 % 94.0 % 92.6 % 96.3 %	Sm-SLF2 83.5 % 83.8 % 84.6 % 86.2 % - - - - - - - - - - - - - - - - - - -	S0m-SLF2 85.9 % 86.2 % 86.2 % 83.7 % 87.7 % 88.3 % - - - - - - - - - - - - - - - - - - -	PIS1-SLF2 72.8 % 74.5 % 74.7 % 75.0 % 75.2 % 76.0 % 89-SLF4 94.2 % 94.0 % 93.3 % 95.5 %	\$17-\$LF4 92.9 % 93.3 % 92.1 % 94.5 %	S10-SLF4 92.1 % 92.8 % 92.1 % 94.0 %	S5-SLF3 S17-SLF3 S10-SLF3 S10-SLF3 S10-SLF3 S19-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF3 S11-SLF4 89.4 % 89.9 % 90.9 %	\$17-\$LF3 99.0 %	100% 90.0% 97.9% - - 100% more than 2 more than 2 more than 2 more than 2	\$22-\$LF3 98.7 % 97.7 % 98.2 %	98.2 % 97.1 % 98.4 % -	PIS2-SLF3 97.9 % 96.9 % 97.9 % 97.9 % 97.1 %	S0m-SLF3 97.1 % 96.1 % 96.9 % 96.9 % 96.4 % 97.7 %	SmSLF3 97.1 % 96.1 % 96.6 % 95.8 % 95.6 % 95.8 %	S9-SLF3 97.4 % 96.4 % 96.4 % 96.4 % 96.6 % 95.6 % 95.1 %	S11-SLF3 89.0 % 88.7 % 89.5 % 89.0 % 88.2 % 89.3 % 87.4 % 89.3 %	81 7 7 7 7 7 7 7 7 7 7 7 7 7 7	

94.8 % 94.0 % 93.5 % 90.4 %

-

93.8 % 93.5 % 90.9 %

92.3 % 91.1 % - 91.6 %

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(e) Type-5 SLFs Max. = 99.2 % Min. = 91.2 % Ave. = 95.5 %

	PiS3-SLF5	S11-SLF5	S0m-SLF5	S17-SLF5	PiS2-SLF5	S5-SLF5	S19-SLF5	S9-SLF5	Sm-SLF5	S10-SLF5	S22-SLF5	S5-SLF5B	S19-SLF5B
S7-SLF5	99.2 %	98.2 %	98.5 %	98.2 %	98.2 %	98.2 %	97.9 %	97.2 %	96.4 %	95.1 %	94.3 %	92.5 %	93.0 %
PiS3-SLF5	-	97.9 %	98.2 %	97.9 %	97.9 %	97.9 %	97.7 %	96.9 %	96.1 %	94.8 %	94.3 %	92.3 %	92.7 %
S11-SLF5		-	98.2 %	97.9 %	97.9 %	97.9 %	97.7 %	96.9 %	96.1 %	94.8 %	94.3 %	92.5 %	93.0 %
S0m-SLF5			-	99.2 %	98.2 %	98.2 %	97.9 %	97.2 %	96.6 %	95.4 %	94.6 %	92.8 %	93.3 %
S17-SLF5				-	97.9 %	97.9 %	97.7 %	96.9 %	96.1 %	95.1 %	94.1 %	92.3 %	92.7 %
PiS2-SLF5					-	98.2 %	97.9 %	96.9 %	96.6 %	94.8 %	94.6 %	92.3 %	92.7 %
S5-SLF5						-	97.7 %	96.9 %	96.1 %	94.8 %	94.1 %	92.5 %	93.0 %
S19-SLF5							-	96.6 %	95.9 %	94.6 %	93.8 %	92.0 %	92.5 %
S9-SLF5								-	95.6 %	94.3 %	93.0 %	91.8 %	92.2 %
Sm-SLF5									-	95.4 %	95.4 %	92.8 %	93.3 %
S10-SLF5										-	93.6 %	92.8 %	93.3 %
S22-SLF5											-	91.2 %	91.7 %
S5-SLF5B												-	99.0 %

100% more than 90 %, less than 100 % more than 80 %, less than 90 % more than 70 %, less than 80 % less than 70 %

(1) 1 y D = 0 O D L 1 3 I v I d A = 33.0 / 0 I v I I I = 33.1 / 0 A V C = 34.3	(f) Type-6 SLFs	Max. = 99.0 %	Min. = 93.1 %	Ave. = 94.9 %
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(g) Type-7 SLFs Max. = 99.2 % Min. = 87.3 % Ave. = 91.9 %

	S0m-SLF6	Sm-SLF6	S7-SLF6	S11-SLF6	S19-SLF6	S17-SLF6	PiS2-SLF6	PiS3-SLF6	S5-SLF6	S22-SLF6
S9-SLF6	96.4 %	95.4 %	94.9 %	95.2 %	95.9 %	94.7 %	95.4 %	95.4 %	94.9 %	94.9 %
S0m-SLF6	-	94.1 %	93.6 %	93.9 %	94.4 %	93.1 %	93.9 %	93.9 %	93.1 %	93.6 %
Sm-SLF6		-	93.9 %	94.9 %	95.4 %	93.9 %	94.7 %	94.7 %	94.4 %	93.9 %
S7-SLF6			-	95.9 %	94.4 %	93.4 %	94.1 %	94.6 %	93.9 %	93.6 %
S11-SLF6				-	95.9 %	94.9 %	95.7 %	96.2 %	94.7 %	94.9 %
S19-SLF6					-	95.4 %	96.2 %	96.4 %	95.2 %	94.9 %
S17-SLF6						-	97.7 %	97.7 %	93.9 %	93.6 %
PiS2-SLF6							-	99.0 %	95.2 %	94.4 %
PiS3-SLF6								-	95.2 %	94.4 %
S5-SLF6									-	94.4 %

		PiS2-SLF7	S17-SLF7ψ	S22-SLF7ψ	Sm-SLF7	S19-SLF7ψ	S0m-SLF7	S11-SLF7	PiS1-SLF7
S	9-SLF7	99.2 %	93.1 %	92.1 %	91.8 %	92.6 %	93.1 %	89.0 %	88.8 %
P	iS2-SLF7	-	93.0 %	92.0 %	91.7 %	92.5 %	93.0 %	88.9 %	88.6 %
S	17-SLF7ψ		-	91.8 %	91.3 %	92.1 %	92.3 %	88.5 %	88.1 %
S	22-SLF7ψ				91.6 %	91.6 %	91.6 %	87.8 %	87.3 %
S	m-SLF7				-	93.6 %	92.9 %	90.8 %	90.1 %
S	19-SLF7ψ					-	96.4 %	93.4 %	93.0 %
S	0m-SLF7							92.6 %	92.2 %
S	11-SLF7							-	98.4 %

(h) Type-8 SLFs	Max. = 100.0 %	Min. = 88.2 %	Ave. = 93.8 %

(1)))== = =														
														Ungrouped
	S7-SLF8B	S19-SLF8B	S10-SLF8	S5-SLF8	Sm-SLF8	S9-SLF8	S0m-SLF8	S19-SLF8A	S11-SLF8	S22-SLF8	S17-SLF8A	PiS2-SLF8	S17-SLF8Βψ	S7-FBX1
S7-SLF8A	96.4 %	96.4 %	95.1 %	95.1 %	95.7 %	95.8 %	95.9 %	95.9 %	95.1 %	92.1 %	89.8 %	89.5 %	89.3 %	67.5 %
S7-SLF8B	-	100.0 %	97.7 %	97.7 %	98.2 %	97.7 %	97.5 %	97.2 %	96.4 %	94.4 %	91.3 %	90.9 %	90.5 %	68.6 %
S19-SLF8B			97.7 %	97.7 %	98.2 %	97.7 %	97.5 %	97.2 %	96.4 %	94.4 %	91.3 %	90.9 %	90.5 %	68.6 %
S10-SLF8			-	96.7 %	97.5 %	96.6 %	96.4 %	96.4 %	95.7 %	93.1 %	90.6 %	89.6 %	90.0 %	68.1 %
S5-SLF8				-	96.9 %	96.9 %	96.4 %	96.4 %	95.1 %	93.1 %	90.0 %	90.0 %	89.5 %	68.1 %
Sm-SLF8					-	97.1 %	96.4 %	96.4 %	95.7 %	93.6 %	91.1 %	90.4 %	89.8 %	68.8 %
S9-SLF8						-	96.9 %	96.9 %	96.4 %	93.5 %	91.1 %	90.6 %	90.4 %	68.3 %
S0m-SLF8							-	98.5 %	95.7 %	93.6 %	91.3 %	90.4 %	90.5 %	68.9 %
S19-SLF8A								-	95.7 %	93.9 %	91.3 %	90.6 %	90.8 %	68.4 %
S11-SLF8									-	92.1 %	90.6 %	90.1 %	89.3 %	67.8 %
S22-SLF8										-	90.0 %	90.6 %	91.3 %	67.3 %
S17-SLF8A											-	90.3 %	88.2 %	66.0 %
PiS2-SLF8												-	88.7 %	66.0 %
S17-SLF8Bu	þ												-	67.1 %

Supplementary Table 3 (Continued)

(i) Type-9 SLFs	Max. =	100.0 %	Min. =	92.7 %	Ave. =	95.1 %									
														Ungrouped	
	S17-SLF9A	S7-SLF9A	S9-SLF9A	S11-SLF9	S5-SLF9	Sm-SLF9A	Sm-SLF9B	S22-SLF9	PiS1-SLF9	PiS2-SLF9	S9-SLF9B	S17-SLF9B	S7-SLF9Βψ	S0m-FBX1	S19-FBX1
PiS3-SLF	97.1 %	97.1 %	97.6 %	95.5 %	94.7 %	95.2 %	94.1 %	94.7 %	94.9 %	94.9 %	94.1 %	95.2 %	95.3 %	87.0 %	87.0 %
S17-SLF9	A -	97.9 %	98.4 %	96.3 %	94.2 %	95.2 %	94.5 %	95.0 %	95.2 %	95.2 %	94.0 %	95.5 %	96.7 %	87.7 %	86.9 %
S7-SLF9/		-	99.0 %	96.9 %	94.8 %	95.5 %	95.0 %	95.5 %	95.5 %	95.5 %	94.8 %	96.1 %	97.2 %	87.7 %	87.4 %
S9-SLF9/			-	97.4 %	95.3 %	96.0 %	95.5 %	96.1 %	96.0 %	96.0 %	95.0 %	96.6 %	97.7 %	88.2 %	88.0 %
S11-SLF9				-	93.7 %	94.4 %	94.5 %	95.0 %	94.4 %	94.4 %	93.7 %	94.8 %	95.8 %	86.6 %	86.6 %
S5-SLF9					-	97.3 %	96.1 %	94.0 %	94.1 %	94.1 %	92.7 %	94.0 %	94.9 %	86.6 %	86.1 %
Sm-SLF9	۹.					-	96.5 %	94.7 %	94.9 %	94.9 %	93.4 %	94.7 %	93.5 %	87.0 %	86.7 %
Sm-SLF9	3						-	94.0 %	93.6 %	93.6 %	93.4 %	94.0 %	94.0 %	86.6 %	86.1 %
S22-SLF9								-	94.4 %	94.4 %	93.2 %	94.8 %	93.0 %	86.6 %	86.1 %
PiS1-SLF	Э								-	100.0 %	93.4 %	94.7 %	94.0 %	86.5 %	85.9 %
PiS2-SLF	9									-	93.4 %	94.7 %	94.0 %	86.5 %	85.9 %
S9-SLF9E	3										-	94.5 %	94.0 %	85.6 %	85.6 %
S17-SLF9	в											-	95.8 %	86.9 %	86.9 %
S7-SLF9E	łψ												-	91.2 %	90.2 %
Ungrouped S0m-FBX	1													-	91.9 %

(j) Type-	10 SLFs	Max. =	100.0 %	Min. =	92.0 %	Ave. =	97.1 %									
															Ungrouped	
		PiS3-SLF10	S5-SLF10	S19-SLF10A	S9-SLF10	PiS2-SLF10	S7-SLF10	S11-SLF10	S17-SLF10	S0m-SLF10	S10-SLF10	Sm-SLF10	S22-SLF10	S19-SLF10B	S0m-FBX1	S19-FBX1
	PiS1-SLF10	98.1 %	98.9 %	98.7 %	98.7 %	97.9 %	97.3 %	97.3 %	97.3 %	97.3 %	97.6 %	97.9 %	97.9 %	93.6 %	85.9 %	88.8 %
	PiS3-SLF10	-	97.6 %	97.3 %	97.3 %	96.6 %	96.0 %	96.0 %	96.0 %	96.0 %	96.3 %	96.6 %	96.6 %	92.6 %	84.6 %	87.8 %
	S5-SLF10		-	99.7 %	98.2 %	97.1 %	97.3 %	97.3 %	97.3 %	97.3 %	97.4 %	97.6 %	97.6 %	92.7 %	85.1 %	88.0 %
	S19-SLF10A			-	97.9 %	96.8 %	97.1 %	97.1 %	97.1 %	97.1 %	97.1 %	97.4 %	97.4 %	92.4 %	84.8 %	87.7 %
	S9-SLF10				-	98.2 %	97.3 %	97.3 %	97.3 %	97.3 %	97.6 %	97.9 %	97.9 %	92.9 %	85.8 %	88.5 %
	PiS2-SLF10					-	96.8 %	96.8 %	96.8 %	96.8 %	97.1 %	97.4 %	97.4 %	92.6 %	85.7 %	88.3 %
	S7-SLF10						-	100.0 %	100.0 %	100.0 %	98.9 %	99.2 %	99.2 %	92.0 %	84.9 %	87.5 %
	S11-SLF10							-	100.0 %	100.0 %	98.9 %	99.2 %	99.2 %	92.0 %	84.9 %	87.5 %
	S17-SLF10								-	100.0 %	98.9 %	99.2 %	99.2 %	92.0 %	84.9 %	87.5 %
	S0m-SLF10									-	98.9 %	99.2 %	99.2 %	92.0 %	84.9 %	87.5 %
	S10-SLF10										-	99.7 %	99.7 %	92.0 %	85.2 %	87.5 %
	Sm-SLF10											-	100.0 %	92.3 %	85.4 %	87.8 %
	S22-SLF10												-	92.3 %	85.4 %	87.8 %
	S19-SLF10B													-	86.9 %	88.7 %
Ungrouped	S0m-FBX1														<u> </u>	91.9 %

(k) Type-11 SLFs Max. = 97.2 % Min. = 91.2 % Ave. = 93.7 %

	Sm-SLF11	S19-SLF11	S10-SLF11	S7-SLF11	S11-SLF11	S22-SLF11	S9-SLF11	S17-SLF11	S0m-SLF11
S5-SLF11	97.2 %	95.1 %	95.6 %	94.9 %	95.1 %	93.8 %	92.2 %	93.1 %	92.6 %
Sm-SLF11	-	94.6 %	94.4 %	94.1 %	94.4 %	93.3 %	91.4 %	92.3 %	91.8 %
S19-SLF11		-	94.4 %	93.6 %	94.4 %	93.3 %	91.9 %	92.6 %	92.8 %
S10-SLF11			-	93.6 %	94.4 %	93.1 %	91.9 %	92.3 %	93.3 %
S7-SLF11				-	97.2 %	95.6 %	93.5 %	94.6 %	92.1 %
S11-SLF11					-	96.7 %	94.5 %	96.2 %	93.1 %
S22-SLF11						-	93.5 %	94.9 %	91.5 %
S9-SLF11							-	95.1 %	91.2 %
S17-SLF11								-	91.3 %

100%
more than 90 %, less than 100 %
more than 80 %, less than 90 %
more than 70 %, less than 80 %
less than 70 %

(I) Type-12 SLFs	Max. =	100.0 %	Min. =	91.9 %	Ave. =	95.9 %				
	S0m-SLF12	Sm-SLF12A	S19-SLF12	S10-SLF12	Sm-SLF12B	S9-SLF12ψ	S5-SLF12	S22-SLF12	S17-SLF12B	S17-SLF12Cu
S17-SLF12A	100.0 %	100.0 %	97.7 %	96.9 %	96.2 %	95.9 %	97.5 %	94.9 %	96.2 %	92.9 %
S0m-SLF12	-	100.0 %	97.7 %	96.9 %	96.2 %	95.9 %	97.5 %	94.9 %	96.2 %	92.9 %
Sm-SLF12A		-	97.7 %	96.9 %	96.2 %	95.9 %	97.5 %	94.9 %	96.2 %	92.9 %
S19-SLF12			-	97.2 %	96.4 %	96.2 %	96.9 %	95.2 %	96.2 %	93.4 %
S10-SLF12				-	96.7 %	96.9 %	96.2 %	94.9 %	95.9 %	92.9 %
Sm-SLF12B					-	96.7 %	95.4 %	94.7 %	95.4 %	92.4 %
S9-SLF12 _{\psi}						-	95.4 %	93.9 %	94.9 %	91.9 %
S5-SLF12							-	95.2 %	96.7 %	93.4 %
S22-SLF12								-	97.2 %	95.7 %
S17-SLF12B									-	94.7 %

(m) Type-13 SLFs Max. = 99.7 % Min. = 91.2 % Ave. = 95.3 %

	Sm-SLF13	S5-SLF13	S10-SLF13	S17-SLF13	S22-SLF13	S19-SLF13	S0m-SLF13	S9-SLF13	S7-SLF13
S11-SLF13	96.9 %	94.8 %	95.3 %	95.1 %	95.9 %	95.6 %	96.1 %	94.6 %	92.5 %
Sm-SLF13	-	95.9 %	94.8 %	94.6 %	96.9 %	96.6 %	95.6 %	94.1 %	91.2 %
S5-SLF13		-	97.2 %	94.6 %	96.4 %	96.1 %	95.4 %	95.6 %	92.3 %
S10-SLF13			-	95.4 %	95.6 %	95.4 %	96.6 %	95.4 %	94.1 %
S17-SLF13				-	97.7 %	97.4 %	96.6 %	95.1 %	92.5 %
S22-SLF13					-	99.7 %	97.4 %	95.9 %	92.8 %
S19-SLF13						-	97.2 %	95.6 %	92.5 %
S0m-SLF13							-	95.9 %	93.6 %
S9-SLF13									92.5 %

(p) Type-16 SLFs Max. = 99.0 % Min. = 90.9 % Ave. = 94.2 %

	S9-SLF16B	S11-SLF16	S0m-SLF16	S7-SLF16	S22-SLF16	S17-SLF16	S5-SLF16	S10-SLF16	Sm-SLF16	S19-SLF1
S9-SLF16A	99.0 %	97.4 %	95.9 %	93.9 %	92.3 %	92.3 %	92.4 %	97.4 %	98.4 %	92.7 %
S9-SLF16B	-	96.9 %	95.7 %	93.4 %	91.8 %	91.8 %	91.9 %	96.9 %	94.0 %	92.2 %
S11-SLF16		-	96.4 %	94.4 %	92.8 %	92.8 %	93.0 %	98.0 %	93.2 %	93.0 %
S0m-SLF16			-	94.1 %	92.8 %	92.8 %	93.0 %	96.9 %	95.6 %	93.5 %
S7-SLF16				-	92.6 %	91.8 %	90.9 %	95.1 %	94.8 %	91.5 %
S22-SLF16					-	96.4 %	93.2 %	93.9 %	95.0 %	94.5 %
S17-SLF16						-	92.4 %	94.4 %	94.5 %	94.3 %
S5-SLF16							-	94.0 %	95.3 %	94.8 %
S10-SLF16								-	91.5 %	94.0 %
Sm-SLF16									-	98.4 %

(n) Ivpe-14 SLFs	Max. = 97.4 %	Min. = 93.6 %	Ave. = 95.2 %

	S7-SLF14	S19-SLF14	S0m-SLF14	S9-SLF14	S22-SLF14	S11-SLF14	S17-SLF14	Sm-SLF14
S10-SLF14	97.4 %	95.7 %	93.8 %	94.1 %	93.8 %	95.4 %	94.6 %	93.6 %
S7-SLF14	-	96.3 %	94.8 %	95.6 %	94.8 %	95.4 %	95.1 %	94.6 %
S19-SLF14		-	95.6 %	95.6 %	95.3 %	95.6 %	94.8 %	95.0 %
S0m-SLF14			-	96.9 %	95.6 %	96.7 %	95.1 %	94.6 %
S9-SLF14				-	95.6 %	97.2 %	95.4 %	94.3 %
S22-SLF14					-	95.9 %	94.1 %	94.1 %
S11-SLF14						-	96.9 %	94.1 %
S17-SLF14							-	94.1 %

(o) Type-15 SLFs Max. = 99.0 % Min. = 93.4 % Ave. = 96.3 %

	S5-SLF15ψ	S11-SLF15ψ	S0m-SLF15ψ	S22-SLF15	S19-SLF15ψ	S9-SLF15
Sm-SLF15	98.5 %	98.2 %	98.2 %	98.0 %	95.2 %	93.6 %
S5-SLF15ψ	-	98.2 %	98.2 %	98.0 %	95.2 %	93.4 %
S11-SLF15ψ		-	99.0 %	97.7 %	95.5 %	93.9 %
S0m-SLF15ψ			-	98.2 %	95.5 %	93.6 %
S22-SLF15				-	95.7 %	93.9 %
S19-SLF15ψ					-	95.2 %

(q) Type-17 SLFs Max. = 100.0 % Min. = 99.7 % Ave. = 99.9 %

	S9-SLF17	S10-SLF17	S17-SLF17	S0m-SLF17	S5-SLF17
S7-SLF17	100.0 %	100.0 %	100.0 %	100.0 %	99.7 %
S9-SLF17	-	100.0 %	100.0 %	100.0 %	99.7 %
S10-SLF17		-	100.0 %	100.0 %	99.7 %
S17-SLF17			-	100.0 %	99.7 %
S0m-SLF17				-	99.7 %

(r) Type-18 SLFs

				100%
	S10-SLF18	S22-SLF18	Sm-SLF18	more than 90 %. less than 100
S5-SLF18	100.0 %	100.0 %	100.0 %	more than 80 %, less than 90 %
S10-SLF18	-	100.0 %	100.0 %	more than 70 %, less than 80 %
S22-SLF18		-	100.0 %	less than 70 %

Supplementary Table 3 (Continued)

(s) SLFs of S5-haplo	type	Max. =	92.5 %	Min. =	44.2 %	Ave. =	52.0 %											
	95 9I E9	95 91 E2						SE SI E0	SE SI E10	QE QI E11	95 9I E10	SE SI E12			SE SI E17	SE SI E10	SE ERVO	
95-9I F1	58.4.%	51.0 %	47.2 %	53.4 %	52.9 %	48.5 %	55.0 %	52.1 %	49.5 %	54.1 %	48.5 %	49.5 %	52.2 %	52.0 %	52.6 %	47.6 %	50.8 %	100%
S5-SLE2	-	52.1 %	51.8 %	53.6 %	52.3 %	49.5 %	54.3 %	53.3 %	51.3 %	53.0 %	51.3 %	40.0 %	50.0 %	51.3 %	50.9 %	46.8 %	54.6 %	more than 90 % less than 100 %
95-9LF3		-	51.7 %	50.0 %	49.3 %	47.3 %	52.2 %	51.9 %	51.2 %	54.9 %	50.3 %	70.3 %	55.6 %	54.1 %	54.5 %	47.8 %	56.0 %	more than 80 % less than 90 %
S5-SLF4			-	56.8 %	55.1 %	53.4 %	48.7 %	48.3 %	46.4 %	45.7 %	75.6 %	47.0 %	48.9 %	48.6 %	50.0 %	50.0 %	51.3 %	more than 70 % less than 80 %
S5-SI E5				-	92.5 %	53.0 %	50.3 %	50.6 %	48.6 %	48.5 %	56.7 %	48.0 %	51.7 %	50.1 %	50.3 %	52.9 %	51.5 %	less than 70 %
S5-SI E5B					-	51.8 %	48.3 %	51.2 %	48.8 %	47.8 %	56.5 %	46.4 %	50.4 %	49.9 %	51.3 %	50.9 %	50.1 %	1000 (11411) 0 /0
S5-SI F6						-	47.3 %	47.5 %	47.4 %	47.6 %	52.7 %	44.4 %	49.2 %	47.7 %	47.8 %	59.0 %	47.8 %	
S5-SLF8							-	51.0 %	48.0 %	53.6 %	49.2 %	51.4 %	53.6 %	55.7 %	53.9 %	47.4 %	53.4 %	
S5-SLF9								-	89.0 %	49.6 %	45.5 %	49.5 %	53.8 %	51.3 %	50.9 %	44.8 %	54.3 %	
S5-SLF10									-	48.1 %	44.2 %	48.2 %	54.6 %	50.3 %	49.9 %	44.2 %	53.8 %	
S5-SLF11											49.4 %	53.4 %	51.7 %	50.0 %	49.6 %	45.3 %	54.1 %	
S5-SLF12											-	46.4 %	48.6 %	47.8 %	48.2 %	48.5 %	49.2 %	
S5-SLF13												-	51.5 %	52.2 %	52.9 %	45.9 %	52.2 %	
S5-SLF15ψ													-	63.9 %	62.4 %	46.7 %	63.1 %	
S5-SLF16														-	79.2 %	45.5 %	70.7 %	
S5-SLF17															-	44.5 %	67.9 %	
S5-SLF18																-	47.1 %	
(t) CI Es of CZ haplet		Max	07.0.0/	Min	45.4.9/	Av.0	EQ 4 0/											
	уре	iviax. =	91.2 70	IVIII 1. =	40.4 %	Ave. =	55.4 %											
	97 91 E1D	97 9I E9	97 SI E2	97 9I E4	97 91 EE	97 91 E6	97 91 E9A	07 CI E0D	97 SI E04	97 SI EODili	97 SI E10	97 SI E11	97 9I E12	97 SI E14	97 9I E16	97 9I E17	Q7 EDV1	
97-91 F1	95.1 %	58.4 %	49.9%	47.7 %	53.2 %	49.5 %	54.1 %	54.6 %	51 9 %	51.2 %	49.2 %	53.6%	49.2 %	53.1 %	52.1 %	51.6%	53.8 %	
S7-SLF1B	-	59.6 %	40.0 %	48.5 %	54.6 %	50.3 %	53.6 %	54.1 %	52.1 %	50.7 %	49.1 %	53.2 %	49.9 %	52.9 %	51.8 %	51.0 %	53.3 %	
S7-SI E2		-	50.9 %	51.5 %	51.4 %	48.4 %	52.4 %	53.2 %	52.9 %	51.4 %	50.5 %	51.8 %	50.3 %	53.3 %	53.5 %	52.0 %	52.3 %	
S7-SI F3			-	51.8 %	53.7 %	49.0 %	53.5 %	53.8 %	51.8 %	50.9 %	50.4 %	53.9 %	66.0 %	52.5 %	49.9 %	52.0 %	52.5 %	
S7-SI F4				-	58.7 %	53.7 %	49.1 %	50.1 %	49.2 %	48.8 %	48.2 %	47.0 %	48.6 %	50.0 %	51.2 %	50.8 %	50.4 %	
S7-SLF5					-	52.3 %	49.6 %	50.0 %	50.6 %	52.5 %	48.1 %	47.7 %	49.1 %	50.5 %	50.3 %	50.0 %	53.9 %	
S7-SLF6						-	46.2 %	47.8 %	48.2 %	48.2 %	47.2 %	47.3 %	45.4 %	47.6 %	46.7 %	46.2 %	47.8 %	
S7-SLF8A							-	96.4 %	50.3 %	47.3 %	47.2 %	52.4 %	52.5 %	53.0 %	54.6 %	53.1 %	67.5 %	
S7-SLF8B								-	51.3 %	48.6 %	47.7 %	53.6 %	52.9 %	54.0 %	56.1 %	54.7 %	68.6 %	
S7-SLF9A									-	97.2 %	88.3 %	50.9 %	51.8 %	54.7 %	51.6 %	51.2 %	52.2 %	
S7-SLF9Βψ										•	88.4 %	49.3 %	47.7 %	53.4 %	48.4 %	47.8 %	49.8 %	
S7-SLF10											-	48.1 %	48.8 %	52.9 %	49.7 %	49.5 %	49.7 %	
S7-SLF11												-	53.4 %	51.5 %	48.5 %	48.3 %	54.6 %	
S7-SLF13													-	53.5 %	52.3 %	53.7 %	54.3 %	
S7-SLF14														-	75.8 %	72.8 %	53.9 %	
S7-SLF16															-	78.5 %	55.6 %	
S7-SLF17																-	54.7 %	

Supplementary Table 3 (Continued)

S11-SLF14

S11-SLF15ψ S11-SLF16

(u) SLFs of S9-haplot	уре	Max. =	99.0 %	Min. =	43.9 %	Ave. =	53.2 %											
	S9-SLF3	S9-SLF4	S9-SLF5	S9-SLF6	S9-SLF7	S9-SLF8	S9-SLF9A	S9-SLF9B	S9-SLF10	S9-SLF11	S9-SLF12ψ	S9-SLF13	S9-SLF14	S9-SLF15	S9-SLF16A	S9-SLF16B	S9-SLF17	S9-FBX1
S9-SLF1	50.3 %	46.0 %	52.9 %	49.7 %	55.2 %	55.1 %	51.7 %	50.6 %	49.4 %	51.7 %	46.6 %	47.2 %	53.1 %	54.6 %	51.0 %	50.5 %	51.0 %	52.6 %
S9-SLF3	-	50.6 %	50.0 %	46.5 %	53.7 %	52.6 %	53.9 %	53.2 %	51.7 %	53.8 %	49.2 %	69.0 %	55.7 %	55.0 %	54.0 %	52.9 %	53.5 %	51.2 %
S9-SLF4		-	57.1 %	53.7 %	49.6 %	49.6 %	48.4 %	48.1 %	46.5 %	45.5 %	78.2 %	47.8 %	48.4 %	49.1 %	49.2 %	48.7 %	50.0 %	50.9 %
S9-SLF5			-	52.8 %	51.7 %	50.1 %	50.9 %	49.7 %	48.2 %	48.8 %	56.7 %	47.7 %	50.8 %	51.3 %	49.7 %	49.2 %	50.7 %	52.7 %
S9-SLF6				-	49.4 %	47.2 %	47.7 %	46.6 %	47.4 %	46.6 %	51.4 %	43.9 %	48.2 %	50.1 %	46.5 %	46.3 %	47.5 %	53.4 %
S9-SLF7					-	50.6 %	50.8 %	50.9 %	50.9 %	50.9 %	49.9 %	49.5 %	63.6 %	60.2 %	60.5 %	60.0 %	58.9 %	52.3 %
S9-SLF8						-	51.6 %	50.8 %	49.5 %	52.4 %	50.4 %	51.0 %	54.1 %	54.2 %	56.4 %	56.1 %	54.2 %	51.4 %
S9-SLF9A							-	95.0 %	90.0 %	50.8 %	45.7 %	51.8 %	54.4 %	55.1 %	51.4 %	50.9 %	51.7 %	49.6 %
S9-SLF9B								-	87.1 %	49.2 %	45.2 %	51.0 %	53.9 %	53.5 %	50.4 %	49.9 %	50.6 %	49.6 %
S9-SLF10									-	49.2 %	44.2 %	49.1 %	52.6 %	54.3 %	49.6 %	49.3 %	50.1 %	49.2 %
S9-SLF11										-	45.6 %	51.7 %	52.6 %	51.4 %	50.0 %	49.2 %	49.5 %	51.9 %
S9-SLF12ψ											-	48.2 %	47.7 %	48.2 %	47.7 %	47.2 %	48.8 %	50.8 %
S9-SLF13												-	51.7 %	51.4 %	51.5 %	50.5 %	52.6 %	48.8 %
S9-SLF14													-	65.1 %	75.5 %	75.0 %	73.3 %	51.5 %
S9-SLF15														-	65.0 %	64.5 %	63.1 %	53.3 %
S9-SLF16A															-	99.0 %	78.9 %	49.9 %
S9-SLF16B																-	78.4 %	49.4 %
S9-SLF17																	-	50.0 %
(v) SLFs of S11-haple	otype	Max. =	87.2 %	Min. =	44.4 %	Ave. =	52.3 %										_	
																	-	
	S11-SLF2	S11-SLF3	S11-SLF3B	S11-SLF4	S11-SLF5	S11-SLF6	S11-SLF7	S11-SLF8	S11-SLF9	S11-SLF10	S11-SLF11	S11-SLF13	S11-SLF14	S11-SLF15ψ	S11-SLF16	S11-FBX1		
S11-SLF1	56.8 %	49.6 %	50.9 %	47.0 %	52.8 %	50.5 %	54.5 %	53.6 %	50.8 %	47.8 %	52.7 %	49.9 %	51.9 %	51.5 %	49.5 %	50.1 %		100%
S11-SLF2	-	52.8 %	51.8 %	48.5 %	51.4 %	47.8 %	54.4 %	52.7 %	52.6 %	49.0 %	54.4 %	50.1 %	53.9 %	49.1 %	53.7 %	47.5 %		more than 90 %
S11-SLF3		-	74.4 %	50.1 %	49.9 %	47.0 %	53.5 %	53.2 %	52.6 %	50.8 %	53.8 %	69.5 %	57.6 %	54.3 %	54.5 %	47.7 %		more than 80 %
S11-SLF3B			-	50.5 %	50.0 %	48.6 %	54.9 %	55.2 %	53.0 %	51.7 %	54.7 %	67.4 %	53.2 %	53.9 %	50.1 %	48.3 %		more than 70 %
S11-SLF4				-	56.6 %	53.2 %	50.0 %	50.0 %	47.8 %	46.3 %	46.7 %	47.3 %	48.2 %	48.9 %	49.0 %	54.3 %		less than 70 %
S11-SLF5					-	52.8 %	50.4 %	51.0 %	50.9 %	48.3 %	48.0 %	48.8 %	50.6 %	51.4 %	49.5 %	54.0 %		
S11-SLF6						-	48.6 %	48.5 %	48.4 %	47.2 %	48.9 %	44.4 %	49.7 %	50.0 %	46.0 %	64.3 %		
S11-SLF7							-	50.4 %	52.3 %	51.3 %	51.3 %	50.9 %	63.5 %	58.7 %	58.5 %	48.8 %		
S11-SLF8								-	52.1 %	49.3 %	54.1 %	53.4 %	54.9 %	53.1 %	55.9 %	49.6 %		
S11-SLF9									-	87.2 %	49.9 %	50.9 %	56.3 %	54.7 %	51.7 %	47.8 %		
S11-SLF10										-	48.7 %	48.8 %	54.1 %	54.8 %	49.7 %	46.0 %		
S11-SLF11											-	53.6 %	53.1 %	51.4 %	49.6 %	47.4 %		
S11-SLF13												-	52.9 %	50.9 %	51.0 %	47.4 %		

ess than 100 % ess than 90 % less than 80 %

 50.9 %
 51.0 %
 47.4 %

 65.7 %
 76.0 %
 47.5 %

 64.4 %
 51.7 %

- 45.9 %

-

Supplementary Table 3 (Continued)

(w) SLFs of S17-haple	otype	Max. =	96.2 %	Min. =	43.2 %	Ave. =	52.9 %														
	S17-SLF1B	S17-SLF2	S17-SLF3	S17-SLF4	S17-SLF4Bψ	S17-SLF5	S17-SLF6	S17-SLF7ψ	S17-SLF8A	S17-SLF8Βψ	S17-SLF9A	S17-SLF9B	S17-SLF10	S17-SLF11	S17-SLF12A	S17-SLF12	3 S17-SLF12Cu	\$17-SLF13	S17-SLF14	S17-SLF16	S17-SLF17
S17-SLF1	87.9 %	58.6 %	50.1 %	48.1 %	47.0 %	53.3 %	49.7 %	53.9 %	51.9 %	50.4 %	48.7 %	50.0 %	46.8 %	50.4 %	46.6 %	47.1 %	45.3 %	49.1 %	51.4 %	51.0 %	49.5 %
S17-SLF1B	-	56.6 %	51.5 %	49.0 %	47.7 %	53.7 %	52.0 %	56.6 %	54.0 %	52.3 %	49.9 %	51.2 %	47.9 %	50.8 %	47.6 %	48.4 %	46.3 %	49.6 %	52.1 %	52.0 %	50.8 %
S17-SLF2		-	49.9 %	49.0 %	48.6 %	52.0 %	48.6 %	54.4 %	51.7 %	50.6 %	53.2 %	53.7 %	51.7 %	51.0 %	49.6 %	49.3 %	48.2 %	50.1 %	53.0 %	51.6 %	51.2 %
S17-SLF3			-	50.7 %	50.9 %	51.2 %	48.2 %	53.5 %	52.5 %	51.9 %	52.5 %	53.5 %	51.6 %	53.4 %	50.3 %	50.8 %	50.0 %	70.6 %	56.0 %	54.0 %	54.5 %
S17-SLF4				-	94.0 %	56.6 %	53.4 %	48.2 %	49.1 %	48.6 %	47.6 %	47.6 %	46.7 %	45.4 %	74.8 %	75.1 %	73.0 %	46.9 %	47.7 %	49.0 %	49.2 %
S17-SLF4Bψ					-	57.4 %	52.9 %	49.9 %	48.9 %	48.3 %	48.2 %	48.5 %	47.3 %	45.5 %	75.6 %	75.6 %	73.6 %	48.2 %	47.7 %	50.0 %	50.0 %
S17-SLF5						-	53.0 %	50.4 %	50.5 %	49.9 %	51.4 %	51.3 %	49.6 %	48.0 %	57.0 %	57.2 %	54.2 %	49.3 %	50.1 %	51.0 %	50.4 %
S17-SLF6								49.0 %	47.6 %	48.1 %	47.7 %	48.5 %	47.8 %	46.3 %	50.6 %	51.1 %	49.9 %	44.1 %	49.0 %	48.3 %	47.0 %
S17-SLF7ψ									51.0 %	50.5 %	51.8 %	52.0 %	50.4 %	50.6 %	49.0 %	49.2 %	49.2 %	51.0 %	63.3 %	61.8 %	58.9 %
S17-SLF8A									-	88.2 %	51.0 %	50.5 %	47.8 %	51.0 %	49.3 %	50.1 %	47.5 %	51.7 %	52.1 %	54.8 %	53.9 %
S17-SLF8Bu											51.3 %	50.1 %	48.7 %	52.0 %	48.0 %	49.0 %	47.2 %	50.5 %	52.3 %	55.2 %	53.8 %
S17-SLF9A											-	95.5 %	88.0 %	49.4 %	44.7 %	45.2 %	44.7 %	50.0 %	53.9 %	51.9 %	50.9 %
S17-SLF9B													87.3 %	49.6 %	45.2 %	45.7 %	44.7 %	51.5 %	54.2 %	52.7 %	50.6 %
S17-SLF10													-	47.4 %	43.5 %	43.5 %	43.2 %	48.6 %	52.8 %	51.6 %	49.5 %
S17-SI F11														-	46.1 %	45.8 %	45.6 %	51.3 %	51.2 %	48.8 %	49.1 %
S17-SLF12A															-	96.2 %	92.9 %	47.8 %	48.1 %	48.0 %	48.0 %
S17-SI F12B																	94.7 %	47.5 %	48.7 %	48.7 %	48.5 %
S17-SI F12Cu	u.																-	47.8 %	47.7 %	47.4 %	48.6 %
S17-SI F13																		-	51.1 %	50.8 %	52.6 %
S17-SLF14																			-	76.8 %	73.0 %
S17-SLE16																				-	78.6 %
(x) SLFs of S19-haplo	otyped	Max. =	100.0 %	Min. =	43.5 %	Ave. =	53.7 %														
(x) SLFs of S19-haplo	typed	Max. =	100.0 %	Min. =	43.5 %	Ave. =	53.7 %														
(x) SLFs of S19-haplo	S19-SLF1B	Max. =	100.0 % S19-SLF3	Min. = S19-SLF4	43.5 % S19-SLF5	Ave. =	53.7 % S19-SLF6	S19-SLF7ψ	S19-SLF8A	S19-SLF8B	S19-SLF10A	S19-SLF10B	S19-SLF11	S19-SLF12	S19-SLF13	S19-SLF14	S19-SLF15ψ	S19-SLF16	S19-FBX1	S19-FBX2	S19-FBX3
(x) SLFs of S19-haplo	519-SLF1B 97.7 %	Max. = S19-SLF2 60.4 %	100.0 % S19-SLF3 50.3 %	Min. = S19-SLF4 48.2 %	43.5 % S19-SLF5 53.7 %	Ave. = <u>S19-SLF5B</u> 53.2 %	53.7 % S19-SLF6 50.3 %	<u>S19-SLF7ψ</u> 55.4 %	S19-SLF8A 55.2 %	S19-SLF8B 54.6 %	S19-SLF10A 49.5 %	S19-SLF10B	S19-SLF11 53.3 %	S19-SLF12 48.1 %	S19-SLF13 49.5 %	S19-SLF14 54.2 %	S19-SLF15ψ 54.5 %	S19-SLF16 52.2 %	S19-FBX1 51.7 %	S19-FBX2 51.4 %	S19-FBX3 51.4 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1	S19-SLF1B 97.7 %	Max. = S19-SLF2 60.4 % 60.9 %	100.0 % S19-SLF3 50.3 % 51.5 %	Min. = <u>S19-SLF4</u> 48.2 % 48.7 %	43.5 % S19-SLF5 53.7 % 53.9 %	Ave. = <u>S19-SLF5B</u> 53.2 % 53.4 %	53.7 % S19-SLF6 50.3 % 50.3 %	S19-SLF7ψ 55.4 % 56.2 %	S19-SLF8A 55.2 % 55.8 %	S19-SLF8B 54.6 % 55.1 %	S19-SLF10A 49.5 % 49.2 %	S19-SLF10B 51.6 % 51.6 %	S19-SLF11 53.3 % 54.1 %	S19-SLF12 48.1 % 48.1 %	S19-SLF13 49.5 % 50.0 %	S19-SLF14 54.2 % 55.2 %	S19-SLF15ψ 54.5 % 54.7 %	S19-SLF16 52.2 % 53.3 %	S19-FBX1 51.7 % 51.7 %	S19-FBX2 51.4 % 51.7 %	S19-FBX3 51.4 % 51.7 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF18 S19-SLF18 S19-SLF2	s19-SLF1B 97.7 %	Max. = <u>S19-SLF2</u> 60.4 % 60.9 % -	100.0 % S19-SLF3 50.3 % 51.5 % 52.7 %	Min. = <u>\$19-SLF4</u> 48.2 % 48.7 % 50.9 %	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 %	Ave. = <u>S19-SLF5B</u> 53.2 % 53.4 % 50.9 %	53.7 % S19-SLF6 50.3 % 50.3 % 48.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.9 %	S19-SLF8A 55.2 % 55.8 % 53.8 %	S19-SLF8B 54.6 % 55.1 % 53.9 %	S19-SLF10A 49.5 % 49.2 % 51.4 %	S19-SLF10B 51.6 % 51.6 % 53.0 %	S19-SLF11 53.3 % 54.1 % 53.4 %	S19-SLF12 48.1 % 48.1 % 50.9 %	S19-SLF13 49.5 % 50.0 % 51.7 %	S19-SLF14 54.2 % 55.2 % 54.6 %	519-SLF15ψ 54.5 % 54.7 % 51.8 %	S19-SLF16 52.2 % 53.3 % 54.1 %	S19-FBX1 51.7 % 51.7 % 52.9 %	S19-FBX2 51.4 % 51.7 % 53.4 %	S19-FBX3 51.4 % 51.7 % 52.4 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF18 S19-SLF2 S19-SLF2 S19-SLF3	styped S19-SLF1B 97.7 %	Max. = <u>\$19-SLF2</u> 60.4 % 60.9 % -	100.0 % <u>S19-SLF3</u> 50.3 % 51.5 % 52.7 %	Min. = <u>S19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 %	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 % 50.1 %	Ave. = <u>\$19-SLF5B</u> 53.2 % 53.4 % 50.9 % 49.6 %	53.7 % S19-SLF6 50.3 % 48.8 % 48.1 %	<u>S19-SLF7ψ</u> 55.4 % 56.2 % 54.9 % 54.0 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 %	S19-SLF10B 51.6 % 51.6 % 53.0 % 52.5 %	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 %	S19-SLF12 48.1 % 48.1 % 50.9 % 50.3 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 %	S19-SLF15ψ 54.5 % 54.7 % 51.8 % 54.7 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 %	S19-FBX1 51.7 % 51.7 % 52.9 % 50.9 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF18 S19-SLF2 S19-SLF3 S19-SLF3	S19-SLF1B 97.7 % -	Max. = <u>S19-SLF2</u> 60.4 % 60.9 % -	100.0 % S19-SLF3 50.3 % 51.5 % 52.7 % -	Min. = <u>\$19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 % 50.1 % 56.8 %	Ave. = <u>S19-SLF5B</u> 53.2 % 53.4 % 50.9 % 49.6 % 55.4 %	53.7 % S19-SLF6 50.3 % 50.3 % 48.8 % 48.1 % 54.2 %	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 45.4 %	S19-SLF10B 51.6 % 51.6 % 53.0 % 52.5 % 46.8 %	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 %	S19-SLF12 48.1 % 48.1 % 50.9 % 50.3 % 74.0 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 47.7 %	519-SLF15ψ 54.5 % 54.7 % 51.8 % 54.7 % 48.2 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 % 50.1 %	S19-FBX1 51.7 % 51.7 % 52.9 % 50.9 % 47.4 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 % 58.2 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF18 S19-SLF2 S19-SLF3 S19-SLF4 S19-SLF4 S19-SLF4	97.7 %	Max. = <u>S19-SLF2</u> 60.4 % 60.9 % -	100.0 % S19-SLF3 50.3 % 51.5 % 52.7 % -	Min. = <u>S19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = S19-SLF5B 53.2 % 53.4 % 50.9 % 49.6 % 55.4 % 92.5 %	53.7 % S19-SLF6 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 %	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 50.5 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 45.4 % 48.1 %	 S19-SLF10B 51.6 % 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 % 48.0 %	S19-SLF12 48.1 % 48.1 % 50.9 % 50.3 % 74.0 % 56.7 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 47.7 % 51.4 %	S19-SLF15ψ 54.5 % 54.7 % 51.8 % 54.7 % 48.2 % 52.4 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 % 50.1 % 50.7 %	S19-FBX1 51.7 % 51.7 % 52.9 % 50.9 % 47.4 % 49.2 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.7 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 % 58.2 % 57.7 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1B S19-SLF2 S19-SLF3 S19-SLF4 S19-SLF5 S19-SLF5B	97.7 %	Max. = <u>S19-SLF2</u> 60.4 % 60.9 % -	100.0 % S19-SLF3 50.3 % 51.5 % 52.7 % -	Min. = <u>S19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % <u>S19-SLF5</u> 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>S19-SLF5B</u> 53.2 % 53.4 % 50.9 % 49.6 % 55.4 % 92.5 %	53.7 % S19-SLF6 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.1 % 50.4 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 50.5 % 49.1 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 45.4 % 48.1 % 48.8 %	 <u>S19-SLF10B</u> 51.6 % 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 % 48.0 % 48.6 %	S19-SLF12 48.1 % 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 57.0 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 47.7 % 51.4 % 52.0 %	519-SLF15ψ 54.5 % 51.8 % 54.7 % 48.2 % 52.4 % 51.4 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 % 50.1 % 50.7 % 51.4 %	S19-FBX1 51.7 % 51.7 % 52.9 % 50.9 % 47.4 % 49.2 % 49.5 %	S19-FBX2 51.4 % 51.7 % 51.2 % 48.0 % 51.7 % 52.4 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 % 58.2 % 57.7 % 57.7 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1 S19-SLF2 S19-SLF3 S19-SLF4 S19-SLF5 S19-SLF5 S19-SLF58 S19-SLF58	S19-SLF1B 97.7 % -	Max. = <u>S19-SLF2</u> 60.4 % 60.9 % -	100.0 % <u>S19-SLF3</u> 50.3 % 51.5 % 52.7 % -	Min. = <u>S19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % <u>S19-SLF5</u> 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>S19-SLF5B</u> 53.2 % 53.4 % 50.9 % 49.6 % 55.4 % 92.5 %	53.7 % S19-SLF6 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 54.3 % -	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 50.5 % 49.1 % 48.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 45.4 % 45.4 % 48.1 % 48.8 % 47.4 %	 <u>S19-SLF10B</u> 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 % 48.6 % 48.1 %	S19-SLF12 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 57.0 % 50.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 44.6 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 47.7 % 51.4 % 52.0 % 48.8 %	519-SLF15ψ 54.5 % 54.7 % 51.8 % 54.7 % 48.2 % 52.4 % 51.4 % 50.6 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 % 50.1 % 50.1 % 51.4 % 47.8 %	S19-FBX1 51.7 % 51.7 % 52.9 % 50.9 % 47.4 % 49.2 % 49.5 % 48.7 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 % 58.2 % 57.7 % 57.7 % 53.7 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF18 S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF5 S19-SLF5 S19-SLF5 S19-SLF7ψ	S19-SLF1B 97.7 %	Max. = <u>S19-SLF2</u> 60.4 % 60.9 % -	100.0 % <u>S19-SLF3</u> 50.3 % 51.5 % 52.7 % -	Min. = <u>S19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % <u>\$19-SLF5</u> 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>\$19-\$LF5B</u> 53.2 % 53.4 % 50.9 % 49.6 % 55.4 % 92.5 %	53.7 % S19-SLF6 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 % -	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 50.5 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 % 51.1 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 45.4 % 48.1 % 48.1 % 48.8 % 47.4 % 51.5 %	S19-SLF10B 51.6 % 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 %	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 % 48.0 % 48.6 % 48.1 % 53.3 %	S19-SLF12 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 57.0 % 50.9 % 49.6 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 44.6 % 51.4 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 51.4 % 52.0 % 48.8 % 63.9 %	<u>S19-SLF15</u> 54.5 % 54.7 % 51.8 % 54.7 % 48.2 % 52.4 % 51.4 % 50.6 % 59.4 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 % 50.1 % 50.1 % 51.4 % 47.8 % 61.7 %	S19-FBX1 51.7 % 52.9 % 50.9 % 47.4 % 49.2 % 49.5 % 48.7 % 52.7 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 % 54.2 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 % 58.2 % 57.7 % 53.7 % 54.5 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF18 S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF5 S19-SLF58 S19-SLF6 S19-SLF6 S19-SLF7 ψ S19-SLF7 ψ	S19-SLF1B 97.7 %	Max. = <u>S19-SLF2</u> 60.4 % 60.9 % -	100.0 % <u>S19-SLF3</u> 50.3 % 51.5 % 52.7 % -	Min. = <u>\$19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % <u>\$19-SLF5</u> 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>\$19-SLF5B</u> 53.2 % 53.4 % 50.9 % 49.6 % 55.4 % 92.5 %	53.7 % <u>\$19-\$LF6</u> 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 % -	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	<u>S19-SLF8A</u> 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 50.5 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 % 97.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 45.4 % 48.1 % 48.8 % 47.4 % 51.5 % 49.4 %	A S19-SLF10B 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 %	S19-SLF11 53.3 % 54.1 % 55.7 % 46.0 % 48.0 % 48.1 % 53.3 % 53.3 % 53.2 %	S19-SLF12 48.1 % 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 57.0 % 50.9 % 49.6 % 49.4 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 51.4 % 52.6 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 47.7 % 51.4 % 52.0 % 48.8 % 63.9 % 55.4 %	S19-SLF15ψ 54.5 % 54.7 % 54.7 % 48.2 % 52.4 % 51.4 % 50.6 % 59.4 % 53.8 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 % 50.1 % 50.7 % 51.4 % 61.7 % 56.5 %	S19-FBX1 51.7 % 52.9 % 50.9 % 47.4 % 49.2 % 49.5 % 48.7 % 52.7 % 49.6 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 % 54.2 % 51.4 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 % 58.2 % 57.7 % 57.7 % 53.7 % 53.7 % 54.5 % 52.5 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF18 S19-SLF2 S19-SLF3 S19-SLF4 S19-SLF4 S19-SLF58 S19-SLF6 S19-SLF68 S19-SLF84 S19-SLF84 S19-SLF84	97.7 %	Max. = <u>S19-SLF2</u> 60.4 % 60.9 %	100.0 % S19-SLF3 50.3 % 51.5 % 52.7 % -	Min. = <u>S19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 %	43.5 % <u>\$19-SLF5</u> 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>S19-SLF5B</u> 53.2 % 53.4 % 50.9 % 49.6 % <u>92.5 %</u> -	53.7 % 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.4 % 49.1 % -	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 50.5 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 % 51.1 % 97.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 45.4 % 48.8 % 47.4 % 51.5 % 49.4 % 49.4 %	 <u>S19-SLF108</u> 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 % 49.6 % 	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 % 48.6 % 48.6 % 48.1 % 53.2 % 53.2 % 52.9 %	S19-SLF12 48.1 % 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 57.0 % 50.9 % 49.6 % 49.4 % 49.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 46.3 % 47.0 % 44.6 % 51.4 % 52.2 %	S19-SLF14 54.2 % 55.2 % 56.4 % 47.7 % 51.4 % 52.0 % 48.8 % 63.9 % 55.4 % 55.4 %	519-SLF15ψ 54.5 % 54.7 % 51.8 % 54.7 % 48.2 % 52.4 % 51.4 % 50.6 % 59.4 % 53.8 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 % 50.7 % 51.4 % 47.8 % 61.7 % 56.5 % 57.0 %	S19-FBX1 51.7 % 52.9 % 50.9 % 47.4 % 49.2 % 49.5 % 48.7 % 52.9 % 49.6 % 49.2 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 % 54.2 % 51.4 % 51.8 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 % 58.2 % 57.7 % 57.7 % 53.7 % 54.5 % 52.5 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1 S19-SLF2 S19-SLF3 S19-SLF4 S19-SLF5 S19-SLF5 S19-SLF0A S19-SLF0A S19-SLF0A	19-5LF18 97.7 %	Max. = <u>\$19-SLF2</u> 60.4 % 60.9 %	100.0 % S19-SLF3 50.3 % 51.5 % 52.7 % -	Min. = <u>\$19-\$LF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % <u>\$19-SLF5</u> 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>\$19-\$LF58</u> 53.2 % 53.4 % 50.9 % 49.6 % 55.4 % 92.5 %	53.7 % 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 49.1 % 49.1 % 49.1 % 49.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 % 51.1 % 97.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 48.1 % 48.8 % 47.4 % 51.5 % 49.4 % 48.3 %	S19-SLF10B 51.6 % 51.6 % 52.5 % 46.8 % 48.1 % 49.6 % 52.7 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 % 48.6 % 48.1 % 53.3 % 52.9 % 48.8 %	S19-SLF12 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 50.9 % 49.6 % 49.7 % 49.5 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 51.4 % 52.2 % 52.7 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 47.7 % 51.4 % 52.0 % 63.9 % 53.5 %	S19-SLF15ψ 54.5 % 54.7 % 54.7 % 48.2 % 52.4 % 50.6 % 59.4 % 53.8 % 53.8 % 54.7 %	S19-SLF16 52.2 % 53.3 % 54.1 % 50.1 % 50.7 % 51.4 % 47.8 % 61.7 % 56.5 % 57.0 % 50.8 %	S19-FBX1 51.7 % 52.9 % 50.9 % 47.4 % 49.5 % 48.7 % 52.7 % 49.6 % 49.7 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 % 54.2 % 51.8 % 76.6 %	S19-FBX3 51.4 % 51.7 % 52.6 % 58.2 % 57.7 % 57.7 % 57.7 % 52.5 % 52.5 % 50.3 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1 S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF5 S19-SLF5 S19-SLF5 S19-SLF6 S19-SLF78 S19-SLF88 S19-SLF10A S19-SLF10A	stip-SLF1B 97.7 %	Max. = \$19-SLF2 60.4 % 60.9 %	100.0 % <u>S19-SLF3</u> 50.3 % 51.5 % 52.7 % -	Min. = <u>S19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>\$19-\$LF58</u> 53.2 % 53.4 % 50.9 % 49.6 % 92.5 %	53.7 % 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 % 51.1 % 97.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 45.4 % 48.1 % 48.8 % 47.4 % 51.5 % 49.4 % 48.3 %	S19-SLF10B 51.6 % 53.0 % 52.5 % 48.8 % 48.1 % 49.6 % 49.6 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 55.7 % 46.0 % 48.6 % 48.1 % 53.3 % 53.2 % 52.9 % 48.8 % 51.7 %	S19-SLF12 48.1 % 48.9 % 50.3 % 74.0 % 56.7 % 50.9 % 49.6 % 49.9 % 43.5 % 45.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 51.4 % 52.6 % 52.2 % 48.7 %	S19-SLF14 54.2 % 55.2 % 56.4 % 51.4 % 52.0 % 48.8 % 63.9 % 55.4 % 54.5 % 54.5 %	54.5 % 54.7 % 54.7 % 54.7 % 54.7 % 54.7 % 52.4 % 51.4 % 50.6 % 59.4 % 53.8 % 53.8 % 53.8 % 54.7 % 56.1 %	S19-SLF16 52.2 % 53.3 % 54.1 % 50.1 % 50.7 % 51.4 % 47.8 % 61.7 % 56.5 % 57.0 % 50.4 %	S19-FBX1 51.7 % 52.9 % 50.9 % 49.2 % 49.5 % 48.7 % 49.6 % 49.2 % 49.6 % 49.7 % 88.7 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 % 54.2 % 51.4 % 51.8 % 76.6 % 77.1 %	S19-FBX3 51.4 % 51.7 % 52.6 % 58.2 % 57.7 % 53.7 % 54.5 % 52.5 % 50.3 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1 S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF5 S19-SLF5 S19-SLF6 S19-SLF6 S19-SLF6 S19-SLF68 S19-SLF108 S19-SLF108 S19-SLF108 S19-SLF108	<u>\$19-SLF18</u> 97.7 %	Max. = <u>\$19-SLF2</u> 60.4 % 60.9 %	100.0 % <u>\$19-\$LF3</u> 50.3 % 51.5 % 52.7 % -	Min. = <u>\$19-\$1F4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 % 50.1 % 56.8 %	Ave. = \$19-SLF58 \$5.2 % \$5.4 % \$0.9 % \$9.6 % \$5.4 % \$92.5 %	53.7 % 519-SLF6 50.3 % 50.3 % 48.8 % 48.8 % 54.2 % 54.2 % 54.1 % 52.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 % -	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 % 57.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 45.4 % 48.8 % 47.4 % 51.5 % 49.4 % 48.3 %	A S19-SLF10B 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 % 48.0 % 48.6 % 48.1 % 53.2 % 52.9 % 48.8 % 51.7 %	S19-SLF12 48.1 % 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 57.0 % 90.9 % 49.4 % 49.9 % 43.5 % 45.9 % 48.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.6 % 46.3 % 48.8 % 47.0 % 44.6 % 51.4 % 52.6 % 52.2 % 48.7 % 50.5 % 53.8 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 47.7 % 51.4 % 52.0 % 48.8 % 63.9 % 55.4 % 55.4 % 55.4 % 55.5 % 53.5 % 53.5 %	519-SLF15ψ 54.5 % 54.7 % 51.8 % 52.4 % 51.4 % 50.6 % 59.4 % 53.8 % 53.8 % 54.7 % 56.1 % 50.8 %	S19-SLF16 52.2 % 53.3 % 54.1 % 54.4 % 50.7 % 51.4 % 47.8 % 56.5 % 57.0 % 53.4 % 51.4 %	S19-FBX1 51.7 % 51.7 % 50.9 % 49.2 % 49.5 % 48.7 % 52.7 % 49.2 % 49.2 % 49.4 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 50.3 % 51.7 % 52.4 % 50.3 % 51.4 % 51.8 % 76.6 % 77.1 % 51.9 %	S19-FBX3 51.4 % 51.7 % 52.6 % 58.2 % 57.7 % 52.5 % 52.5 % 50.3 % 51.3 % 50.3 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF3 S19-SLF3 S19-SLF3 S19-SLF4 S19-SLF5 S19-SLF58 S19-SLF58 S19-SLF64 S19-SLF74 S19-SLF108 S19-SLF108 S19-SLF11 S19-SLF11	typed <u>\$19-\$LF1B</u> 97.7 % -	Max. = <u>\$19-SLF2</u> 60.4 % 60.9 % -	100.0 % <u>\$19-\$LF3</u> 50.3 % 51.5 % 52.7 %	Min. = <u>\$19-\$LF4</u> 48.2 % 48.7 % 50.9 % 51.4 % -	43.5 % <u>\$19-SLF5</u> 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>\$19-\$LF5B</u> 53.2 % 53.4 % 50.9 % 49.6 % 55.4 % 92.5 %	53.7 % <u>\$19-SLF6</u> 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 %	<u>S19-SLF7</u> 55.4 % 56.9 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 50.5 % 49.1 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 49.2 % 49.7 % 48.3 % 51.1 % 97.2 %	\$19-SLF10A 49.5 % 49.2 % 51.4 % 45.4 % 48.1 % 48.8 % 47.4 % 51.5 % 49.4 % 48.3 %	S19-SLF10B 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 53.4 % 55.7 % 46.0 % 48.0 % 48.1 % 53.3 % 52.9 % 48.8 % 51.7 %	S19-SLF12 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 50.9 % 49.6 % 49.9 % 43.5 % 45.9 % 48.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 51.4 % 52.2 % 52.6 % 52.7 % 53.8 %	S19-SLF14 54.2 % 55.2 % 56.4 % 47.7 % 51.4 % 52.0 % 63.9 % 55.4 % 53.5 % 54.5 % 53.5 % 54.5 %	S19-SLF15ψ 54.5 % 51.8 % 54.7 % 48.2 % 52.4 % 52.4 % 50.6 % 59.4 % 53.8 % 54.7 % 56.1 % 50.8 % 47.2 %	S19-SLF16 52.2 % 53.3 % 54.1 % 50.1 % 50.7 % 51.4 % 61.7 % 56.5 % 57.0 % 50.8 % 53.4 % 51.4 %	S19-FBX1 51.7 % 52.9 % 50.9 % 47.4 % 49.2 % 49.2 % 49.7 % 52.7 % 49.6 % 49.7 % 88.7 % 49.8 % 43.8 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.2 % 52.4 % 50.3 % 54.2 % 51.8 % 76.6 % 77.1 % 51.9 %	S19-FBX3 51.4 % 51.7 % 52.6 % 58.2 % 57.7 % 53.7 % 54.5 % 52.5 % 50.3 % 51.3 % 50.3 % 57.0 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1 S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF5 S19-SLF5 S19-SLF64 S19-SLF04 S19-SLF104 S19-SLF104 S19-SLF105 S19-SLF112 S19-SLF12 S19-SLF12	typed <u>\$19-\$LF1B</u> 97.7 %	Max. = <u>\$19-\$LF2</u> 60.4 % 60.9 % -	100.0 % <u>\$19-\$LF3</u> 50.3 % 51.5 % 52.7 %	Min. = <u>\$19-\$LF4</u> 48.2 % 48.7 % 50.9 % 51.4 %	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = <u>\$19-\$1F5B</u> 53.2 % 53.4 % 50.9 % 49.6 % <u>92.5 %</u>	53.7 % 519-SLF6 50.3 % 50.3 % 48.8 % 54.2 % 54.1 % 52.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 49.1 % 50.5 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 49.2 % 49.7 % 48.3 % 71.1 % 97.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 48.1 % 48.1 % 48.8 % 51.5 % 49.4 % 48.3 %	S19-SLF10B 51.6 % 51.6 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 53.7 % 46.0 % 48.0 % 48.1 % 53.3 % 53.2 % 52.9 % 51.7 %	S19-SLF12 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 50.9 % 49.6 % 49.4 % 49.5 % 45.9 % 48.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 51.4 % 52.6 % 52.6 % 50.5 % 53.8 % 47.0 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 57.7 % 51.4 % 63.9 % 55.4 % 54.5 % 53.5 % 49.4 % 52.5 %	S19-SLF15ψ 54.5 % 54.7 % 54.7 % 48.2 % 52.4 % 50.6 % 59.4 % 53.8 % 54.7 % 56.1 % 50.8 % 47.2 %	S19-SLF16 52.2 % 53.3 % 54.1 % 50.1 % 50.7 % 51.4 % 61.7 % 56.5 % 57.0 % 53.4 % 51.4 % 50.7 % 51.4 % 50.7 % 51.4 % 50.8 % 51.4 % 52.5 %	S19-FBX1 51.7 % 52.9 % 47.4 % 49.2 % 49.5 % 52.7 % 48.7 % 52.7 % 49.6 % 49.7 % 88.7 % 49.4 % 43.8 % 48.7 % 48.7 %	S19-FBX2 51.4 % 51.7 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 % 51.2 % 51.4 % 51.8 % 77.1 % 51.9 % 46.0 % 97.7 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.8 % 57.7 % 57.7 % 53.7 % 52.5 % 52.5 % 50.3 % 51.3 % 50.3 % 57.7 % 50.3 % 50.3 % 51.0 % 50.0 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1B S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF5 S19-SLF5 S19-SLF56 S19-SLF6 S19-SLF70 S19-SLF10A S19-SLF10B S19-SLF11 S19-SLF12 S19-SLF13 S19-SLF13 S19-SLF13	styped 97.7 %	Max. = \$19-SLF2 60.4 % 60.9 % - - - - - - - - - - - - -	100.0 % <u>\$19-\$LF3</u> 50.3 % 51.5 % 52.7 % -	Min. = <u>S19-SLF4</u> 48.2 % 48.7 % 50.9 % 51.4 % - -	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 % 50.1 % 56.8 %	Ave. = <u>\$19-\$LF58</u> 53.2 % 53.4 % 50.9 % 49.6 % 92.5 %	53.7 % 519-SLF6 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 % -	S19-SLF7ψ 55.4 % 56.2 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 % 51.1 % 97.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 50.6 % 48.4 % 48.1 % 48.8 % 47.4 % 51.5 % 49.4 % 48.3 %	A S19-SLF10B 51.6 % 51.6 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 % 49.6 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 55.7 % 46.0 % 48.0 % 48.6 % 48.6 % 48.1 % 53.3 % 53.2 % 52.9 % 48.8 % 51.7 %	S19-SLF12 48.1 % 48.9 % 50.3 % 74.0 % 56.7 % 50.9 % 49.6 % 49.9 % 43.5 % 48.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 52.6 % 52.2 % 48.7 % 50.5 % 53.8 % 47.5 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 51.4 % 52.0 % 48.8 % 55.4 % 55.4 % 53.5 % 54.5 % 52.5 %	S19-SLF15ψ 54.5 % 54.7 % 54.7 % 54.7 % 48.2 % 52.4 % 51.4 % 50.6 % 59.4 % 53.8 % 53.8 % 54.7 % 56.1 % 50.8 % 47.2 % 50.9 % 66.1 %	S19-SLF16 52.2 % 53.3 % 54.1 % 50.1 % 50.7 % 51.4 % 61.7 % 56.5 % 57.0 % 50.4 % 51.4 % 51.4 % 52.5 % 52.5 % 52.5 % 52.5 %	S19-FBX1 51.7 % 52.9 % 50.9 % 49.2 % 49.2 % 49.6 % 49.2 % 87.7 % 88.7 % 49.4 % 43.8 % 48.7 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 % 54.2 % 51.4 % 51.8 % 76.6 % 51.9 % 46.0 % 49.7 % 53.8 %	S19-FBX3 51.4 % 51.7 % 52.6 % 57.7 % 57.7 % 57.7 % 52.5 % 52.5 % 50.3 % 57.0 % 49.0 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1 S19-SLF2 S19-SLF3 S19-SLF3 S19-SLF5 S19-SLF5 S19-SLF58 S19-SLF6 S19-SLF74 S19-SLF108 S19-SLF108 S19-SLF108 S19-SLF11 S19-SLF13 S19-SLF14 S19-SLF14 S19-SLF14	s19-SLF18 97.7 %	Max. = <u>\$19-SLF2</u> 60.4 % 60.9 % - - 100% more than 8 more than 8	100.0 % <u>\$19-\$LF3</u> 50.3 % 51.5 % 52.7 % - - - - - - - - - - - - -	Min. = <u>\$19-\$1F4</u> 48.2 % 48.7 % 50.9 % 51.4 % - - - - - - - - - - - - -	43.5 % S19-SLF5 53.7 % 53.9 % 51.7 % 50.1 % 56.8 %	Ave. = \$19-SLF58 \$5.2 % \$5.4 % \$0.9 % \$9.6 % \$5.4 % \$92.5 %	53.7 % S19-SLF6 50.3 % 50.3 % 48.8 % 48.1 % 54.2 % 54.1 % 52.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.9 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 51.9 % 49.2 % 49.7 % 48.3 % 47.1 % 51.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 45.4 % 48.8 % 47.4 % 51.5 % 49.4 % 48.3 %	A S19-SLF10B 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 53.7 % 46.0 % 48.0 % 48.6 % 48.6 % 48.1 % 53.2 % 52.9 % 48.8 % 51.7 %	S19-SLF12 48.1 % 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 57.0 % 49.6 % 49.9 % 43.5 % 45.9 % -	S19-SUF13 49.5 % 50.0 % 51.7 % 69.6 % 46.3 % 48.8 % 47.0 % 44.6 % 51.4 % 52.6 % 52.2 % 48.7 % 50.5 % -	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 47.7 % 51.4 % 52.0 % 48.8 % 63.9 % 55.4 % 54.5 % 53.5 % 49.4 % 52.5 %	S19-SLF15ψ 54.5 % 51.8 % 54.7 % 48.2 % 52.4 % 51.4 % 50.6 % 59.4 % 53.8 % 54.7 % 50.6 % 59.4 % 50.8 % 54.7 % 50.8 % 54.7 % 50.8 % 50.9 % 66.1 % 50.9 % 66.1 %	S19-SLF16 52.2 % 53.3 % 54.1 % 50.1 % 50.7 % 51.4 % 47.8 % 61.7 % 56.5 % 57.0 % 50.8 % 51.4 % 9.1 % 52.5 % 76.9 %	S19-FBX1 51.7 % 52.9 % 50.9 % 47.4 % 49.2 % 49.5 % 48.7 % 52.7 % 49.6 % 87.7 % 88.7 % 49.4 % 43.8 % 48.7 % 54.4 %	S19-FBX2 51.4 % 51.7 % 53.4 % 51.2 % 48.0 % 51.2 % 52.4 % 50.3 % 54.2 % 51.4 % 76.6 % 77.1 % 46.0 % 49.7 % 53.6 %	S19-FBX3 51.4 % 51.7 % 52.4 % 52.6 % 57.7 % 57.7 % 52.5 % 52.5 % 50.3 % 51.3 % 50.3 % 57.0 % 49.0 % 54.2 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1 S19-SLF2 S19-SLF2 S19-SLF5 S19-SLF5 S19-SLF5 S19-SLF6 S19-SLF64 S19-SLF108 S19-SLF108 S19-SLF108 S19-SLF11 S19-SLF12 S19-SLF13 S19-SLF14 S19-SLF14 S19-SLF154 S19-SLF154	typed <u>\$19-\$LF1B</u> 97.7 %	Max. = <u>\$19-SLF2</u> 60.4 % 60.9 % - - 100% more than 8 more than 8 more than 8	100.0 % <u>\$19-\$LF3</u> 50.3 % 51.5 % 52.7 % - - - - - - - - - - - - -	Min. = <u>\$19-\$LF4</u> 48.2 % 48.7 % 50.9 % 51.4 % - - - - - - - - - - - - -	43.5 % S19-SLP5 53.7 % 53.9 % 51.7 % 50.1 % 56.8 % -	Ave. = 519-SLF5B 53.2 % 53.4 % 50.9 % 49.6 % 55.4 % 92.5 %	53.7 % \$19-\$LF6 50.3 % 50.3 % 48.8 % 54.2 % 54.1 % 52.8 %	S19-SLF7ψ 55.4 % 56.2 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLE8A 55.2 % 55.8 % 53.8 % 53.4 % 49.1 % 49.1 % 49.1 % 48.3 % 51.3 %	S19-SLF88 54.6 % 55.1 % 53.9 % 49.2 % 49.7 % 48.3 % 47.1 % 97.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 48.1 % 48.1 % 48.8 % 51.5 % 49.4 % 48.3 %	X S19-SLF10B 51.6 % 51.6 % 53.0 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 55.7 % 46.0 % 48.0 % 48.0 % 48.1 % 53.3 % 53.2 % 52.9 % 48.8 % 51.7 %	S19-SLF12 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 50.9 % 49.6 % 49.9 % 43.5 % 45.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 52.6 % 52.6 % 52.6 % 53.8 % 47.5 %	S19-SLF14 54.2 % 55.2 % 56.4 % 57.7 % 51.4 % 52.0 % 54.5 % 53.5 % 59.4 % 52.5 %	S19-SLF15ψ 54.5 % 54.7 % 54.7 % 48.2 % 52.4 % 50.6 % 59.4 % 53.8 % 54.7 % 50.6 % 59.4 % 53.8 % 54.7 % 56.1 % 50.9 % 66.1 %	S19-SLF16 52.2 % 53.3 % 54.1 % 50.1 % 50.7 % 51.4 % 61.7 % 56.5 % 57.0 % 53.4 % 51.4 % 47.8 % 61.7 % 50.8 % 53.4 % 51.4 % 49.1 % 52.5 % 76.9 % 65.9 %	S19-FBX1 51.7 % 52.9 % 50.9 % 47.4 % 49.2 % 49.7 % 52.7 % 48.7 % 52.7 % 49.4 % 43.8 % 48.7 % 54.5 % 54.5 % 52.1 %	S19-FBX2 51.4 % 51.7 % 51.2 % 48.0 % 51.7 % 52.4 % 51.3 % 51.4 % 51.8 % 76.6 % 77.1 % 53.8 % 53.8 % 55.6 % 52.1 %	S19-FBX3 51.4 % 51.7 % 52.6 % 58.2 % 57.7 % 57.7 % 57.7 % 52.5 % 52.5 % 50.3 % 51.3 % 50.3 % 57.0 % 54.2 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 % 52.5 %
(x) SLFs of S19-haplo S19-SLF1 S19-SLF1 S19-SLF3 S19-SLF3 S19-SLF4 S19-SLF5 S19-SLF55 S19-SLF65 S19-SLF10 S19-SLF100 S19-SLF100 S19-SLF110 S19-SLF110 S19-SLF110 S19-SLF110 S19-SLF110 S19-SLF110 S19-SLF110 S19-SLF110 S19-SLF110 S19-SLF110 S19-SLF15 S19-SLF15 S19-SLF16 S19-SLF16 S19-SLF16 S19-SLF16 S19-SLF16 S19-SLF16 S19-SLF16	styped 97.7 %	Max. = S19-SLF2 60.4 % 60.9 % - 100% more than 5 more than 5 more than 6	100.0 % <u>\$19-\$LF3</u> 50.3 % 51.5 % 52.7 % - - - - - - - - - - - - -	Min. = <u>\$19-\$LF4</u> 48.2 % 48.7 % 50.9 % 51.4 % - - - - - - - - - - - - -	43.5 % S19-SLF5 53.7 % 53.9 % 50.1 % 56.8 % -	Ave. = <u>\$19-\$1F5B</u> 53.2 % 53.4 % 50.9 % 49.6 % <u>92.5 %</u>	53.7 % 519-SLF6 50.3 % 50.3 % 48.8 % 54.2 % 54.1 % 52.8 %	<u>S19-SLF7ψ</u> 55.4 % 54.9 % 54.0 % 49.9 % 50.1 % 50.4 % 49.1 %	S19-SLF8A 55.2 % 55.8 % 53.8 % 49.1 % 50.5 % 49.1 % 48.3 % 51.3 %	S19-SLF8B 54.6 % 55.1 % 53.9 % 49.2 % 49.7 % 48.3 % 71.1 % 97.2 %	S19-SLF10A 49.5 % 49.2 % 51.4 % 48.1 % 48.1 % 48.8 % 51.5 % 49.4 % 48.3 %	S19-SLF10B 51.6 % 51.6 % 52.5 % 46.8 % 48.1 % 49.6 % 47.9 % 52.7 % 49.6 % 49.6 % 92.1 %	S19-SLF11 53.3 % 54.1 % 55.7 % 46.0 % 48.0 % 48.6 % 53.3 % 53.2 % 52.9 % 48.8 % 51.7 %	S19-SLF12 48.1 % 50.9 % 50.3 % 74.0 % 56.7 % 50.9 % 49.6 % 49.9 % 43.5 % 45.9 % 48.9 %	S19-SLF13 49.5 % 50.0 % 51.7 % 69.0 % 46.3 % 48.8 % 47.0 % 51.4 % 52.6 % 52.5 % 53.8 % 47.5 %	S19-SLF14 54.2 % 55.2 % 54.6 % 56.4 % 57.7 % 51.4 % 63.9 % 55.4 % 53.5 % 49.4 % 52.5 %	S19-SLF15ψ 54.5 % 54.7 % 54.7 % 48.2 % 52.4 % 50.6 % 59.4 % 53.8 % 54.7 % 50.6 % 59.4 % 53.8 % 54.7 % 56.1 % 50.8 % 47.2 % 50.9 % 66.1 %	S19-SLF16 52.2 % 53.3 % 54.1 % 50.1 % 50.7 % 51.4 % 61.7 % 56.5 % 57.0 % 53.4 % 51.4 % 50.8 % 53.4 % 51.4 % 92.5 % 76.9 % 65.9 %	S19-FBX1 51.7 % 52.9 % 47.4 % 49.2 % 49.5 % 52.7 % 48.7 % 52.7 % 49.6 % 49.7 % 88.7 % 49.4 % 43.8 % 54.5 % 54.5 % 54.4 % 52.1 %	S19-FBX2 51.4 % 51.7 % 51.2 % 48.0 % 51.7 % 52.4 % 50.3 % 51.2 % 51.4 % 51.7 % 52.4 % 51.3 % 51.4 % 51.8 % 76.6 % 77.1 % 51.9 % 46.0 % 53.8 % 55.6 % 52.1 % 80.2 %	S19-FBX3 51.4 % 51.7 % 52.6 % 58.2 % 57.7 % 57.7 % 52.5 % 52.5 % 50.3 % 51.3 % 50.3 % 57.7 % 52.5 % 52.5 % 52.5 % 52.5 % 52.3 % 51.3 % 50.3 % 51.0 % 52.2 %

(y) S-RNases	Max. =	94.1 %	Min. =	35.2 %	Ave. =	52.9 %									
	PiS2-RNase	PiS13-RNase	PiS3-RNase	PiS12-RNase	PiS1-RNase	S10-RNase	S17-RNase	S9-RNase	PiS7-RNase	S7-RNase	S11-RNase	S5-RNase	Sm-RNase	S19-RNase	S0m-RNase
S22-RNase	94.1 %	85.3 %	81.7 %	76.8 %	71.1 %	60.6 %	61.0 %	53.2 %	54.7 %	43.4 %	42.9 %	43.6 %	39.9 %	43.4 %	42.6 %
PiS2-RNase	-	86.5 %	80.2 %	77.4 %	71.2 %	63.1 %	60.4 %	53.6 %	54.7 %	45.2 %	42.0 %	45.5 %	40.9 %	43.3 %	41.1 %
PiS13-RNase		-	81.6 %	76.7 %	70.6 %	60.1 %	54.9 %	50.6 %	54.7 %	36.4 %	35.2 %	42.4 %	39.1 %	40.5 %	39.7 %
PiS3-RNase			-	84.0 %	72.6 %	63.2 %	62.5 %	55.4 %	54.7 %	45.7 %	43.0 %	45.1 %	40.9 %	44.4 %	42.7 %
PiS12-RNase				-	75.0 %	65.0 %	58.5 %	52.8 %	57.5 %	39.6 %	35.8 %	41.3 %	38.8 %	40.0 %	39.5 %
PiS1-RNase					-	65.0 %	58.3 %	55.6 %	56.3 %	44.8 %	41.2 %	44.7 %	39.9 %	44.0 %	41.5 %
S10-RNase						-	68.0 %	60.2 %	59.0 %	45.4 %	43.1 %	49.8 %	41.2 %	43.6 %	43.1 %
S17-RNase							-	57.3 %	54.0 %	47.0 %	45.7 %	47.1 %	42.7 %	45.9 %	47.5 %
S9-RNase								-	84.9 %	47.2 %	45.5 %	47.2 %	43.8 %	45.0 %	44.5 %
PiS7-RNase									-	43.3 %	39.1 %	41.3 %	40.5 %	41.5 %	39.6 %
S7-RNase										-	68.7 %	51.6 %	46.9 %	47.5 %	47.5 %
S11-RNase											-	50.2 %	44.5 %	48.9 %	48.9 %
S5-RNase												-	47.1 %	46.2 %	47.1 %
Sm-RNase														72.8 %	73.8 %
S19-BNase														-	86.5 %

100%
more than 90 %, less than 100 %
more than 80 %, less than 90 %
more than 70 %, less than 80 %
less than 70 %

Pairwise comparisons among allelic SLFs of the same type (a-r), among SLFs of each S-haplotype (s-x), or among allelic S-RNases (y). Shading shows the level of identity. Each value was computed by using the GENETYX-MAC (ver. 16.0.6).

			Iransgene	self pol	lination
Plant ID	<i>S</i> -genotype ^a		expression ^b	seed set ^c	Phenotype
S7-SLF1 #41	S5 <mark>S22</mark>	<i>S11S22</i> x #14 (<i>S5S17/S7-SLF1</i>) ^d	+++	+++	SC
S7-SLF1 #42	S11S19	<i>S7S11</i> x #37 (<i>S5S19/S7-SLF1</i>) ^d	+++	-	SI
S7-SLF1 #43	S11S19	<i>S7S11</i> x #40 (<i>S17S19/S7-SLF1</i>) ^d	+++	-	SI
S7-SLF1 #44	S11 <mark>S22</mark>	#42 x <i>S11S22</i>	+++	+++	SC
S7-SLF1 #45	S19S22	#42 x <i>S11S22</i>	+++	+++	SC
S7-SLF1 #46	S19S22	#43 x <i>S11S22</i>	+++	+++	SC
S5-SLF3 #1	<mark>S5</mark> S11	ТО	+++	-	SI
S5-SLF3 #2	<mark>S5</mark> S17	ТО	+++	-	SI
S5-SLF3 #3	S11 <mark>S7</mark>	<i>S7S7</i> x #1	++	+++	SC
S5-SLF3 #4	S11 <mark>S7</mark>	<i>S7S7</i> x #1	++	+++	SC
S5-SLF3 #5	S9S11	<i>S9S9</i> x #1	+	-	SI
S5-SLF3 #6	<mark>S5</mark> S17	<i>S17S17</i> x #1	+++	-	SI
S5-SLF3 #7	<mark>S5</mark> S17	<i>S17S17</i> x #1	+++	-	SI
S5-SLF3 #8	<mark>S5</mark> S19	<i>S19S19</i> x #1	+	-	SI
S5-SLF3 #9	<mark>S5</mark> S9	<i>S9S11</i> x #2	+++	-	SI
S5-SLF3 #10	<mark>S5</mark> S11	<i>S9S11</i> x #2	+++	-	SI
S5-SLF3 #11	<mark>S5</mark> S11	<i>S9S11</i> x #2	+++	-	SI
S5-SLF3 #12	S9S17	<i>S9S11</i> x #2	+++	-	SI
S5-SLF3 #13	<u>S5S7</u>	<i>S7S7</i> x #2	+++	+++	SC
S5-SLF3 #14	<u>S5S7</u>	<i>S7S7</i> x #2	+++	+++	SC
S5-SLF3 #15	<mark>S5</mark> S19	<i>S19S19</i> x #2	+++	-	SI
S5-SLF3 #16	<mark>S5</mark> S19	<i>S19S19</i> x #2	+++	-	SI
S7-SLF3 #1	S5 <mark>S7</mark>	ТО	+++	-	SI
S7-SLF3 #2	S5 <mark>S7</mark>	ТО	+++	-	SI
S7-SLF3 #3	S5 <mark>S7</mark>	ТО	+++	-	SI
S7-SLF3 #4	S5 <mark>S7</mark>	ТО	+++	-	SI
S7-SLF3 #5	<i>S5<mark>S7</mark></i>	ТО	+++	-	SI
S7-SLF3 #6	S5S17	ТО	+++	-	SI
S7-SLF3 #7	S5S17	ТО	+++	-	SI
S7-SLF3 #8	S5S17	ТО	+++	-	SI
S7-SLF3 #9	<u>87</u> S9	ТО	+++	-	SI
S7-SLF3 #10	<u>87</u> S9	ТО	++	-	SI
S7-SLF3 #11	<u>87</u> S9	ТО	++	-	SI
S7-SLF3 #12	<u>\$7</u> \$9	то	+++	-	SI
S7-SLF3 #13	<mark>\$7</mark> \$11	#1 x <i>S11S11</i>	+++	-	SI
S7-SLF3 #14	<mark>\$7</mark> \$11	#2 x S11S11	+++	-	SI
S7-SLF3 #15	<mark>\$7</mark> \$11	#3 x S11S11	+++	-	SI
S7-SLF3 #16	<mark>\$7</mark> \$19	#1 x <i>S5S19</i>	+++	-	SI
S7-SLF3 #17	S7 S19	#3 x <i>S5S19</i>	+++	-	SI
S7-SLF3 #18	S5S19	#6 x <i>S5S19</i>	+++	-	SI
	00017	то			<u></u>
011-0LF3D #1	0001/ 85817		+++	-	ତା ତା
SII-SLESD #2	0001/ 05017		+++	-	ତା ତା
SII-SLESD #3	55517 85 <mark>811</mark>	10	+++	-	ତା ହା
911-9LF3D #4	55511 85611	10	++	-	ତ। ତା
011-0LF0D #0	00011	10	+++	-	31

Supplementary Table 4 Summary of transformation experiments

S11-SLF3B #6	<i>S5S9</i>	<i>S9S11</i> x #1	+++	-	SI
S11-SLF3B #7	<i>S5S9</i>	<i>S9S11</i> x #1	+++	-	SI
S11-SLF3B #8	S5 <mark>S11</mark>	<i>S9S11</i> x #1	+++	-	SI
S11-SLF3B #9	S5 <mark>S11</mark>	<i>S9S11</i> x #1	+++	-	SI
S11-SLF3B #10	<mark>S1</mark> 1S17	<i>S11S11</i> x #1	+++	-	SI
S11-SLF3B #11	<mark>S1</mark> 1S17	<i>S11S11</i> x #1	+++	-	SI
S11-SLF3B #12	<i>S5S7</i>	<i>S7S19</i> × #1	+++	-	SI
S11-SLF3B #13	S5S19	<i>S7S19</i> × #1	+++	-	SI
S11-SLF3B #14	S5S19	<i>S7S19</i> × #1	+++	-	SI
S11-SLF3B #15	<i>S5S7</i>	<i>S7S19</i> × #1	++	-	SI
S11-SLF3B #16	S5S19	<i>S7S19</i> × #1	+++	-	SI
S11-SLF3B #17	S7S17	<i>S7S19</i> × #1	+++	-	SI
S11-SLF3B #18	<i>S5S9</i>	<i>S9S11</i> × #3	++	-	SI
S11-SLF3B #19	S9S17	<i>S9S11</i> × #3	++	-	SI
S11-SLF3B #20	S9S17	<i>S9S11</i> × #3	++	-	SI
S11-SLF3B #21	<mark>S1</mark> 1S17	S9S11 × #3	+++	-	SI
S11-SLF3B #22	S5S7	S7S19 × #3	+++	-	SI
S11-SLF3B #23	S7S17	S7S19 × #3	+++	-	SI
S11-SLF3B #24	S17S19	S7S19 × #3	++	-	SI
					_
S7-SLF9 #1	S5S17	ТО	+++	-	SI
S7-SLF9 #2	S5S17	ТО	+++	-	SI
S7-SLF9 #3	S5S17	ТО	+++	-	SI
S7-SLF9 #4	<i>S5S9</i>	<i>S9S11</i> x #1	+++	-	SI
S7-SLF9 #5	S5S11	<i>S9S11</i> x #1	+++	-	SI
S7-SLF9 #6	S5S11	<i>S9S11</i> x #1	++	-	SI
S7-SLF9 #7	<i>S5<mark>S7</mark></i>	<i>S7S19</i> x #1	+++	-	SI
S7-SLF9 #8	<i>S5<mark>S7</mark></i>	<i>S7S19</i> x #1	+++	-	SI
S7-SLF9 #9	<mark>87</mark> 817	<i>S7S19</i> x #1	++	-	SI
S7-SLF9 #10	S5 <mark>S19</mark>	<i>S7S19</i> x #1	+++	+++	SC
S7-SLF9 #11	S17 <mark>S19</mark>	<i>S7S19</i> x #1	+++	+++	SC
S7-SLF9 #12	<i>S5S9</i>	<i>S9S11</i> x #2	+++	-	SI
S7-SLF9 #13	S5S11	<i>S9S11</i> x #2	+++	-	SI
S7-SLF9 #14	S11S17	<i>S9S11</i> x #2	+++	-	SI
S7-SLF9 #15	<i>S5<mark>S7</mark></i>	<i>S7S19</i> x #2	+++	-	SI
S7-SLF9 #16	S5 <mark>S7</mark>	<i>S7S19</i> x #2	+++	-	SI
S7-SLF9 #17	S5 <mark>S19</mark>	<i>S7S19</i> x #2	+++	+++	SC
S7-SLF9 #18	S17 <mark>S19</mark>	<i>S7S19</i> x #2	+++	+++	SC
S7-SLF9 #19	<i>S5S9</i>	<i>S9S11</i> x #3	+++	-	SI
S7-SLF9 #20	<i>S5S9</i>	<i>S9S11</i> x #3	+++	-	SI
S7-SLF9 #21	S11S17	<i>S9S11</i> x #3	+++	-	SI
S7-SLF9 #22	S5 <mark>S7</mark>	<i>S7S19</i> x #3	+++	-	SI
S7-SLF9 #23	S5 <mark>S7</mark>	<i>S7S19</i> x #3	+++	-	SI
S7-SLF9 #24	S5 <mark>S19</mark>	<i>S7S19</i> x #3	+++	+++	SC
S7-SLF9 #25	S5 <mark>S19</mark>	<i>S7S19</i> x #3	+++	+++	SC
S7-SLF9 #26	<mark>S7</mark> S9	<i>S7S7</i> x #4	++	-	SI
S7-SLF9 #27	<mark>S7</mark> S11	<i>S7S7</i> x #5	++	-	SI
S7-SLF9 #28	<mark>S7</mark> S17	<i>S7S7</i> x #11	+++	-	SI
S7-SLF9 #29	S7S19	<i>S7S7</i> x #11	++	+++	SC
S7-SLF9 #30	<mark>S7</mark> S9	<i>S7S7</i> x #12	+++	-	SI
S7-SLF9 #31	<mark>S7</mark> S11	<i>S7S7</i> x #13	++	-	SI
	07017	0707			0

S7-SLF9	#33	<mark>S7S19</mark>	<i>S7S7</i> x #18	+++	+++	SC	
S7-SLF9	#34	<mark>\$7</mark> \$9	<i>S7S7</i> x #19	+++	-	SI	
S7-SLF9	#35	<mark>S7</mark> S11	<i>S7S7</i> x #21	++	-	SI	
S7-SLF9	#36	<mark>S7</mark> S17	<i>S7S7</i> x #21	+++	-	SI	
S11-SLF9	#1	S5S17	ТО	+++	-	SI	
S11-SLF9	#2	S5S17	ТО	+++	-	SI	
S11-SLF9	#3	S5 <mark>S11</mark>	ТО	+++	-	SI	
S11-SLF9	#4	<i>S5S9</i>	<i>S9S11</i> x #1	+++	-	SI	
S11-SLF9	#5	S5 <mark>S11</mark>	<i>S9S11</i> x #1	+++	-	SI	
S11-SLF9	#6	S9S17	<i>S9S11</i> x #1	+++	-	SI	
S11-SLF9	#7	<mark>S11</mark> S17	<i>S9S11</i> x #1	++	-	SI	
S11-SLF9	#8	<i>S5S7</i>	<i>S7S19</i> x #1	+++	-	SI	
S11-SLF9	#9	S5 <mark>S19</mark>	<i>S7S19</i> x #1	+++	+++	SC	
S11-SLF9	#10	S17 <mark>S19</mark>	<i>S7S19</i> x #1	+++	+++	SC	
S11-SLF9	#11	S5 <mark>S11</mark>	<i>S9S11</i> x #2	+++	-	SI	
S11-SLF9	#12	<mark>S11</mark> S17	<i>S9S11</i> x #2	+++	-	SI	
S11-SLF9	#13	<i>S5S7</i>	<i>S7S19</i> x #2	+++	-	SI	
S11-SLF9	#14	S5 <mark>S19</mark>	<i>S7S19</i> x #2	+	+++	SC	
S11-SLF9	#15	S5 <mark>S19</mark>	<i>S7S19</i> x #2	+++	+++	SC	
S11-SLF9	#16	S9 <mark>S11</mark>	<i>S5S9</i> x #3	+++	-	SI	
S11-SLF9	#17	<mark>S11</mark> S17	<i>S5S17</i> x #3	+++	-	SI	
S11-SLF9	#18	S5 <mark>S19</mark>	<i>S7S19</i> x #3	+++	+++	SC	
S11-SLF9	#19	S5 <mark>S19</mark>	<i>S7S19</i> x #3	+++	+++	SC	

^a The *S*-haplotype of each transgenic plant that is homoallelic with respect to the transgene is indicated in blue. For each self-compatible (SC) transgenic plant, the *S*-haplotype of pollen that exhibited competitive interaction with the transgene is indicated in red (see also Supplementary Table 6).

^b "+++" indicates the transcript of a transgene yielding a strong band after 26 cycles of amplification; "++" indicates the transcript of a transgene yielding a strong band after 28 cycles of amplification; "+" indicates the transcript of a transgene yielding a weak or moderate-intensity band after 28 cycles of amplification.

^c SC and SI phenotypes were judged by the number of the obtained seeds per pod after self-pollination. "+++" indicates more than 100 seeds set per pod; "++" indicates 51–100 seeds set per pod; "+" indicates 10–50 seeds set per pod; and "-" indicates fewer than 10 seeds set per pod. In this work, all selfpollination tests resulted in complete SC phenotype of "+++" or complete SI phenotype of "-". All results were consistently reproduced from at least three independent self-pollinations.

^d These plants are derived from our previous work⁹.

Population		S-haplotype segregation					
Genetic cross No. of proge plants analy		Possible genotypes of progeny plants Observed ratio ^a		Expected ratio ^b	Chi square	P-value	
S5S22 x S5S22/S7-SLF1	44	S5S5/TG : S5S22/TG : S22S22/TG	0: 21: 23	0: 1: 1	0.09	0.76	
				1: 2: 1	24.14	5.74E-06	
S11S22 x S11S22/S7-SLF1	30	S11S11/TG : S11S22/TG : S22S22/TG	0: 16: 14	0: 1: 1	0.13	0.72	
				1: 2: 1	13.20	1.36E-03	
S19S22 x S19S22/S7-SLF1	36	S19S19/TG : S19S22/TG : S22S22/TG	0: 17: 19	0: 1: 1	0.11	0.74	
				1: 2: 1	20.17	4.18E-05	
S5S7 x S5S7/S5-SLF3	52	S5S5/TG : S5S7/TG : S7S7/TG	0: 28: 24	0: 1: 1	0.31	0.58	
				1: 2: 1	22.46	1.33E-05	
S5S19 x S5S19/S7-SLF9	64	S5S5/TG : S5S19/TG : S19S19/TG	0: 35: 29	0: 1: 1	0.56	0.45	
				1: 2: 1	26.84	1.48E-06	
S7S19 x S7S19/S7-SLF9	47	S7S7/TG : S7S19/TG : S19S19/TG	0: 20: 27	0: 1: 1	1.04	0.31	
				1: 2: 1	32.06	1.09E-07	
S5S19 x S5S19/S11-SLF9	67	S5S5/TG : S5S19/TG : S19S19/TG	0: 32: 35	0: 1: 1	0.13	0.71	
				1: 2: 1	36.70	1.07E-08	
S17S19/S11-SLF9 self	36	S17S17/TG : S17S19/TG : S19S19/TG	0: 14: 22	0: 1: 1	1.78	0.18	
				1.2.1	28.67	5 96E-07	

Supplementary Table 5 Analyses of progenies of the transformants that exhibited breakdown of SI

^aAll progeny plants inherited the transgene (*TG*). ^bUpper ratios are values predicted by competitive interaction; lower ratios are values predicted by simple mendelian inheritance.

Supplementary Table 6 Sequence information of genes extracted from whole genome database

(a) SLF-related F-box genes from tomato

Solyc00g014960 SL2.50ch00:11,078,69711,082,983 F-box S7-SLF5 3.00E-25 Solyc00g014980 SL2.50ch00:11,087,04811,093,479 F-box S7-SLF5 2.00E-25 Solyc00g018770 SL2.50ch00:11,087,04811,093,479 F-box + FBA1 S7-SLF5 2.00E-25 Solyc01g008040 SL2.50ch01:2,196,5192,197,816 F-box + FBA3 S7-SLF5 1.00E-23 Solyc01g008660 SL2.50ch01:2,721,6442,722,893 F-box S7-SLF4 2.00E-32 Solyc01g049660 SL2.50ch01:50,895,88750,897,056 F-box + FBA1 S7-SLF4 1.00E-101 Solyc01g056200 SL2.50ch01:52,616,290.52,616,775 F-box + FBA3 (ψ) S7-SLF1 1.00E-43 Solyc01g056240 SL2.50ch01:52,616,290.52,616,775 F-box + FBA3 (ψ) S7-SLF1 1.00E-44 Solyc01g056280 SL2.50ch01:52,683,825.52,683,869 F-box (ψ) S7-SLF1 1.00E-44 Solyc01g056280 SL2.50ch01:52,616,726 F-box + FBA3 (ψ) S7-SLF1 1.00E-44 Solyc01g056280 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF5 4.00E-56 Solyc01g056280 SL2	
Solyc00g014980 SL2.50ch00:11,087,04811,093,479 F-box S7-SLF13 9.00E-25 Solyc00g018770 SL2.50ch00:11,667,23411,668,418 F-box + FBA1 S7-SLF5 2.00E-25 Solyc01g008040 SL2.50ch01:2,196,5192,197,816 F-box + FBA3 S7-SLF5 1.00E-23 Solyc01g008660 SL2.50ch01:42,196,5192,127,16442,722,893 F-box S7-SLF4 2.00E-32 Solyc01g049660 SL2.50ch01:45,830,69045,831,775 FBA3 (ψ) S7-SLF4 2.00E-32 Solyc01g049660 SL2.50ch01:50,895,88750,897,056 F-box + FBA1 S7-SLF4 1.00E-43 Solyc01g056200 SL2.50ch01:52,586,63452,559,465 F-box (ψ) S7-SLF1 1.00E-44 Solyc01g056250 SL2.50ch01:52,616,29052,616,775 F-box + FBA3 (ψ) S7-SLF14 1.00E-44 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box (ψ) S7-SLF5 4.00E-56 Solyc01g056280 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-116 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158	
Solyc00g018770 SL2.50ch00:11,667,23411,668,418 F-box + FBA1 S7-SLF5 2.00E-25 Solyc01g008040 SL2.50ch01:2,196,5192,197,816 F-box + FBA3 S7-SLF5 1.00E-23 Solyc01g008660 SL2.50ch01:2,721,6442,722,893 F-box S7-SLF4 2.00E-32 Solyc01g049660 SL2.50ch01:2,721,6442,722,893 F-box S7-SLF4 2.00E-32 Solyc01g055160 SL2.50ch01:50,895,88750,897,056 F-box + FBA1 S7-SLF4 1.00E-101 Solyc01g056200 SL2.50ch01:52,586,63452,559,465 F-box + FBA1 S7-SLF1 3.00E-80 Solyc01g056240 SL2.50ch01:52,616,29052,616,775 F-box + FBA3 (ψ) S7-SLF1 3.00E-80 Solyc01g056250 SL2.50ch01:52,683,25552,683,869 F-box (ψ) S7-SLF5 4.00E-56 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:52,780,347.52,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2<	
Solyc01g008040 SL2.50ch01:2,196,5192,197,816 F-box + FBA3 S7-SLF5 1.00E-23 Solyc01g008660 SL2.50ch01:2,721,6442,722,893 F-box S7-SLF4 2.00E-32 Solyc01g049660 SL2.50ch01:2,721,6442,722,893 F-box S7-SLF4 1.00E-101 Solyc01g049660 SL2.50ch01:50,895,867.50,897,056 F-box + FBA1 S7-SLF4 1.00E-43 Solyc01g056200 SL2.50ch01:52,558,63452,559,465 F-box + FBA3 (ψ) S7-SLF14 1.00E-44 Solyc01g056200 SL2.50ch01:52,568,63452,559,465 F-box + FBA3 (ψ) S7-SLF14 1.00E-44 Solyc01g056240 SL2.50ch01:52,683,25552,683,869 F-box + FBA3 (ψ) S7-SLF14 1.00E-456 Solyc01g056250 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01g056280 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:53,340,153.33,31,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 <t< td=""><td></td></t<>	
Solyc01g008660 SL2.50ch01:2,721,6442,722,893 F-box S7-SLF4 2.00E-32 Solyc01g049660 SL2.50ch01:45,830,69045,831,775 FBA3 (ψ) S7-SLF1 1.00E-101 Solyc01g055160 SL2.50ch01:50,895,88750,897,056 F-box + FBA1 S7-SLF4 1.00E-43 Solyc01g056220 SL2.50ch01:52,558,63452,559,465 F-box (ψ) S7-SLF1 3.00E-80 Solyc01g056250 SL2.50ch01:52,616,775 F-box (ψ) S7-SLF1 1.00E-44 Solyc01g056250 SL2.50ch01:52,663,25552,683,669 F-box (ψ) S7-SLF14 1.00E-44 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA3 (ψ) S7-SLF14 1.00E-44 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:53,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2 SL2.50ch01:53,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2 <td></td>	
Solyc01g049660 SL2.50ch01:45,830,69045,831,775 FBA3 (ψ) S7-SLF14 1.00E-101 Solyc01g055160 SL2.50ch01:50,895,88750,897,056 F-box + FBA1 S7-SLF6 1.00E-43 Solyc01g056220 SL2.50ch01:52,558,63452,559,465 F-box + FBA3 (ψ) S7-SLF14 3.00E-80 Solyc01g056240 SL2.50ch01:52,658,63452,559,465 F-box (ψ) S7-SLF14 1.00E-44 Solyc01g056250 SL2.50ch01:52,616,270 F-box + FBA3 (ψ) S7-SLF1 1.00E-44 Solyc01g056280 SL2.50ch01:52,683,25552,683,869 F-box (ψ) S7-SLF5 4.00E-56 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2 SL2.50ch01:53,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2 SL2.50ch01:53,266,512,526,565 S6 S6 F-box + FBA3 (ψ) S7-SLF4 1.00E-136	
Solyc01g055160 SL2.50ch01:50,895,88750,897,056 F-box + FBA1 S7-SLF6 1.00E-43 Solyc01g05620 SL2.50ch01:52,558,63452,559,465 F-box (ψ) S7-SLF11 3.00E-80 Solyc01g056240 SL2.50ch01:52,616,29052,616,775 F-box + FBA3 (ψ) S7-SLF14 1.00E-44 Solyc01g056250 SL2.50ch01:52,663,25552,683,869 F-box (ψ) S7-SLF5 4.00E-56 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01_pseudo1 SL2.50ch01:53,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF1 1.00E-158 Solyc01_pseudo2 SL2.50ch01:53,266,314,573,341,578 F-box + FBA3 (ψ) S7-SLF1A 1.00E-136 Solyc01_pseudo2 SL2.50ch01:53,266,314,573,263,54 F-box + FBA3 (ψ) S7-SLF1A 1.00E-136	
Solyc01g056220 SL2.50ch01:52,558,63452,559,465 F-box (ψ) S7-SLF11 3.00E-80 Solyc01g056240 SL2.50ch01:52,616,29052,616,775 F-box + FBA3 (ψ) S7-SLF14 1.00E-44 Solyc01g056250 SL2.50ch01:52,683,25552,683,869 F-box (ψ) S7-SLF5 4.00E-56 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:53,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2 SL2.50ch01:53,262,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF1A 1.00E-136 Solyc01_pseudo2 SL2.50ch01:53,262,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF1A 1.00E-136	
Solyc01g056240 SL2.50ch01:52,616,29052,616,775 F-box + FBA3 (ψ) S7-SLF14 1.00E-44 Solyc01g056250 SL2.50ch01:52,683,25552,683,869 F-box (ψ) S7-SLF5 4.00E-56 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:53,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2 SL2.50ch01:53,262,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2 SL2.50ch01:53,262,512,62,512,62,503,541,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136	
Solyc01g056250 SL2.50ch01:52,683,25552,683,869 F-box (ψ) S7-SLF5 4.00E-56 Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:53,340,413578 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:53,340,413578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo3 SL2.50ch01:53,340,578 S12,50ch01:53,340,578 F-box + FBA3 (ψ) S7-SLF4 1.00E-136	
Solyc01g056280 SL2.50ch01:52,762,36452,763,564 F-box + FBA1 S7-FBX 1.00E-116 Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-136 Solyc01_pseudo2 SL2.50ch01:52,976,94152,956 F-box + FBA3 (ψ) S7-SLF4 1.00E-136	
Solyc01_pseudo1 SL2.50ch01:52,780,04752,781,174 F-box + FBA3 (ψ) S7-SLF4 1.00E-158 Solyc01_pseudo2 SL2.50ch01:53,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF1A 1.00E-136 Solyc01_pseudo3 SL2.50ch01:52,265,219, 52,366,250 F-box + FBA3 (ψ) S7-SLF1A 1.00E-136	
Solyc01_pseudo2 SL2.50ch01:53,340,41353,341,578 F-box + FBA3 (ψ) S7-SLF1A 1.00E-136 Solyc01_pseudo3 S1.2 50cb01:52,365,319, 52,365,329, 52,565, 55, 55, 55, 55, 55, 55, 55, 55, 55	
Solve01 pseudo3 SL2 50cb01:52 365 319 53 366 350 E.boy LEBA3 (iii) S7 SL 54 1.00E 103	
OL2.300101.33,300,309 F-D0X + FDA3 (Ψ) 37-3LF4 1.00E-103	
Solyc01g056660 SL2.50ch01:55,528,77855,529,745 F-box + FBA1 S7-SLF9A 1.00E-125	
Solvc01 pseudo6 SL2.50ch01:55.974.38455.975.615 F-box + FBA1 (ψ) S7-SLF8A 2.00E-34	
Solvc01a057010 SL2.50ch01:57.933.154.57.934.326 F-box + FBA1 S7-SLF8A 1.00E-132	
Solvc01a057190 SL2.50ch01:59.694.70959.695.872 F-box + FBA1 S7-SLF13 1.00E-176	
Solvc01 pseudo4 SL2.50ch01:60.535.67460.536.864 F-box + FBA3 S7-SLF6 1.00E-153	
Solvc01 pseudo5 SL2.50ch01:63,731.624,.63,732.791 FBA3 (@) S7-SLF5 2.00E-50	
Solvc01a067010 SL2.50ch01:75.348.97275.350.445 F-box + FBA3 S7-SLF3 1.00E-24	
Solvc01a067030 SL2.50ch01:75.366.63175.368.093 F-box S7-SLF8A 1.00E-23	
Solvc02a033040 SL2.50ch02:29.703.07529.704.514 F-box + FBA1 S7-SLF13 1.00E-24	
Solvc02o070600 SL2 50ch02:40 317 008 40 319 433 F-box + FBA3 S7-SLF4 6 00E-21	
Solvc2a070620 SL2 50ch02:40 323 600. 40 325 396 F-box + FBA3 S7-SLF8A 1.00E-21	
Solvc03o046490 SL2 50ch03:12 935 141, 12 936 370 F-box + FBA3 S7-SLF2 3,00E-21	
Solvc04063440 SL2 50ch04:55 565 206 .55 566 423 F-box + FBA3 S7-SLF2 1.00E-31	
Solvc04q064440 SL2.50ch04:55.581.853.55.583.076 F-box + FBA1 S7-SLF1A 2.00E-36	
Solvc04o080320 SL2 50ch04 64 549 641 . 64 550 714 F-box + FBA1 S7-SLF8A 7.00E-23	
Solvc05a005110 SL2 50ch05:115.571.116.788 F-box + FBA1 S7-SLF13 2.00E-28	
Solvc05o007530 SL2.50ch05:2.085.583.2.086.701 F-box + FBA1 S7-SLF2 8.00E-23	
Solvc06a059810 SL2 50ch06:37 714 157 .37 717 327 F-box + FBA1 S7-SLF2 1.00E-21	
Solve27o044920 SL250ch07:57.969.707.57.970.804 F-box + FBA3 S7-SLF8A 2.00E-45	
Solve070047760 SI 2 50ch07:58 956 909 58 958 366 E-box + EBA3 S7-SI E14 9 00E-29	
Salvc07c052580 SL2.50ch07.61.061.992.61.063.899 F-bax + EBA1 S7-SLE8A 6.00E-20	
Solvc07a055020 SL2 50ch07:63 166 956. 63 175 330 F-box + FBA1 S7-SLF3 2 00E-24	
Sulvc9g072910 SL2 50ch0965 599 205 65 600 644 E-box + EBA1 S7-SLE3 1 00E-21	
Salvc09072930 SI 2 50ch09 65 606 864 65 608 024 E-box + EBA1 S7-SI E2 3 00E-27	
Salvedga 083230 S1 2 50ch09 68 801 294 68 801 394 E-box S7-SI E13 6 60E-28	
Salvedge001220 SI 2 50ch09:70 525 090 70 526 286 E-box S7-SI E5 2 00E-23	
Salvedgog18600 SI 2 50ch0970 938 293 70 939 459 E-box S7 SI 58 2 200E-31	
Solvedge012100 S1250-h06-70.046.048.70.047.256 E-box S7-S1E6 3.00E-94	
Solvetogooff, So	
Solve10g008550 S12504b102 648 352 2 687 402 Ebox + EBA3 S7.S1E4 2 00E-34	
Solve10g0052710 SI 2 50x1012,000,0001.2,001,742 1 - 004 1 Data 1 Data 2 - 00E-01	
Solver10012540 SL2.50ch115 353 456 5 355 147 E-hov S7-SL F8A 2.00E-21	
Solverting 12510 Sectors Solverting 1250 Solve	
Solver12010001300 SL2.50ch12:600 070.691.290 F-box + FRA1 S7-SL F13 3.0F-25	
Solve120099550 SL2:50ch12:66.661.67766.663.236 F-box + FBA1 S7-SLF17 7.0F-27	

(b) S-RNase-related ribonuclease genes from tomato

_Gene_ID	Location	Motif	Query	E value
Solyc01g055200	SL2.50ch01:51,700,66051,701,422	signal + RNase T2	S7-RNase	2.00E-59
Solyc04g005640	SL2.50ch04:417,342420,221	signal + RNase T2	S7-RNase	1.00E-19
Solyc05g007940	SL2.50ch05:2,366,2842,369,405	signal + RNase T2	S7-RNase	2.00E-21
Solyc05g007950	SL2.50ch05:2,373,1332,374,737	signal + RNase T2	S7-RNase	4.00E-20
Solyc06g082890	SL2.50ch06:48,522,77948,529,899	signal + RNase T2	S7-RNase	3.00E-14
Solyc07g006570	SL2.50ch07:1,383,2081,384,976	signal + RNase T2	S7-RNase	3.00E-13
Solyc09g020110	SL2.50ch09:18,416,99718,428,931	signal + RNase T2	S7-RNase	9.00E-14

(c) SLF-related F-box genes from potato

PGSC0003DM-40000324 PGSC0003DM-40000342 PGSC0003DM-40000342 PGSC0003DM-40000342 PGSC0003DM-40000342 PGSC0003DM-40000342 PGSC0003DM-40000342 PGSC0003DM-40000342 PGSC0003DM-40000342 PGSC0003DM-40000342 PGSC0003DM-40000324 PGSC0003DM-4000034 PGSC0003DM-4000034 PGSC0003DM-4000034 PGSC0003DM-4000034 PGSC0003DM-4000034 PGSC0003DM-4000034 PGSC0003DM-4000034 PGSC0003DM-4000034 PGSC0003DM-4000034 <	Gene ID	Peptide ID	Location	Motif	Querv	E value
PGSC00000MG40000324 POSC00000MG40000324 POSC00000MG40000324 POSC00000MG40000324 POSC00000MG4000124 POSC00000MG40001264 POSC00000MG40001264 POSC00000MG40001264 POSC00000MG40001264 POSC00000MG40001264 POSC00000MG40001264 POSC00000MG40001264 POSC00000MG40001264 POSC00000MG40001266 POSC00000MG40001266 POSC00000MG40001266 POSC00000MG40001266 POSC00000MG40001266 POSC00000MG4000126 POSC00000MG4000126 POSC00000MG4000126 POSC00000MG4000127 POSC00000MG4000126 POSC00000MG4000126 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG40000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000127 POSC00000MG4000117 POSC00000MG4000127 POSC00000MG4000127 POSC0000MG4000127 POSC0000MG4000127 POSC0000MG4000127 POSC0000MG4000127 POSC0000MG4000127 POSC0000MG400027 POSC0000MG400027 POSC0000MG400027 POSC0000MG400027 POSC0000MG400027 POSC0000MG4000027 POSC0000MG4000277 POSC00	PGSC0003DMG400017998	PGSC0003DMP400031381	ST4.03ch00:25.449.46925.453.906	F-box	S7-SLF5	1.00E-26
PGSC0003DMG4000032M PGSC0003DMG4000032M PGSC0003DMG4000124M PGSC0003DMG4000124M PGSC0003DMG4000124M PGSC0003DMG4000124M PGSC0003DMG4000124M PGSC0003DMG4000124M PGSC0003DMG4000124M PGSC0003DMG40001287	PGSC0003DMG400003427	PGSC0003DMP400006117	ST4.03ch00:29,442,01829,443,907	F-box	S7-SLF3	5.00E-23
PGSC00003DMG400016380 PGSC0003DMF400016387 PGSC0003DMF40001638 PGSC0003DMF40001638 PGSC0003DMF40001638 PGSC0003DMF40001738 PGSC0003DMF40001738 PGSC0003DMF40001738 PGSC0003DMF40001738 PGSC0003DMF40001737 FT 41 030-F12 PGSC0003DMF4000737 FT 41 030-F12 FT 41 F03-F1841	PGSC0003DMG400003428	PGSC0003DMP400006118	ST4.03ch00:29,447,94229,449,474	F-box	S7-SLF3	9.00E-23
PGSC0003DMG40001858 PGSC0003DMF4000280 STA 03EAD Flox	PGSC0003DMG400012104	PGSC0003DMP400021387	ST4.03ch00:38,789,79138,791,074	F-box + FBA1	S7-SLF16	1.00E-106
PGSC0003DM640000857 PGSC0003DM640000854 PGSC0003DM640000854 PGSC0003DM640000854 PGSC0003DM640000859 FTA 03:h0128.268.268.268.268.276 Pbox FRAI S7-SLF-41 1.00E-121 PGSC0003DM6400008569 PGSC0003DM640000859 PGSC0003DM6400008519 PGSC0003DM6400008512 PGSC0003DM6400008512 PGSC0003DM6400008512 PGSC0003DM6400008512 PGSC0003DM6400008512 PGSC0003DM6400008512 PGSC0003DM6400008517 ST4 03:h0128.863.238.288.573.28.954.74F Phox FRAI S7-SLF1A1 1.00E-128 PGSC0003DM640000500 PGSC0003DM640000598 ST4 03:h012.88.953.28.28.951.74 Phox FRAI S7-SLF1A1 1.00E-128 PGSC0003DM6400002000 PGSC0003DM640007807 ST4 03:h012.28.957.28.27.99.443 Phox FRAI S7-SLF4A 1.00E-128 PGSC0003DM640002000 PGSC0003DM6400082087 ST4 03:h012.27.08.17.28.91.67 Phox FRAI S7-SLF4A 1.00E-128 PGSC0003DM6400020277 PGSC0003DM640008277 PGSC003DM640008279 ST4 03:h012.27.68.73.29.18.07 Phox FRAI S7-SLF4 1.00E-128 PGSC0003DM6400012287 PGSC003DM6400082777 ST4 03:h012.27.68.33.27.47.82 Phox<	PGSC0003DMG400016368	PGSC0003DMP400028605	ST4.03ch01:3,708,8143,710,345	F-box	S7-SLF5	1.00E-22
PGSC0003DMA00003MA PGSC0003DM400004668 ST4.036h012.86.4917.0 Phox FBA1 S7-SLF4 1.00E-121 PGSC0003DM400006514 PGSC0003DM400006514 PGSC0003DM400005512 PGSC0003DM4000128 ST4.036h012.88.4530.28.4885,902 Phox FBA1 S7-SLF14 1.00E-129 PGSC0003DM400005511 PGSC0003DM40001158 ST4.036h012.88.4530.28.4825,912 Phox FBA1 S7-SLF14 1.00E-159 PGSC0003DM400005511 PGSC0003DM40001397 ST4.036h012.88.553,72.93565,517 Fbox + FBA1 S7-SLF4 1.00E-122 PGSC0003DM400005769 PGSC0003DM400013941 PGSC0003DM400013941 PGSC0003DM400013941 PGSC0003DM400013841 PGSC0003DM40002387 PGSC0003DM40002388 PGSC0003DM40002388 PGSC0003DM40002388 PGSC0003DM40002388 PGSC0003DM40002388 PGSC0003DM40002388 PGSC0003DM40002388 PGSC0003DM40002388 PGSC0003DM400002388 PGSC0003DM400002388 <t< td=""><td>PGSC0003DMG400008762</td><td>PGSC0003DMP400015399</td><td>ST4.03ch01:26,225,62626,226,959</td><td>F-box + FBA1</td><td>S7-SLF8A</td><td>1.00E-132</td></t<>	PGSC0003DMG400008762	PGSC0003DMP400015399	ST4.03ch01:26,225,62626,226,959	F-box + FBA1	S7-SLF8A	1.00E-132
MS3C0000MR40000484 PGSC00005MR40002689 PGSC0005MR40002689 PGSC0005MR40002689 PGSC0005MR40002689 PGSC0005MR400006812 PGSC0005MR400006812 PGSC0005MR400006812 PGSC0005MR400006812 PGSC0005MR40001158 ST4.03ch12.88.85.33.28.86.97.07 Fbox + FBA3 S7-8LF14 1.00E-158 PGSC0005MR400006811 PGSC00035MR40001158 ST4.03ch12.88.85.33.28.08.97.07 Fbox + FBA1 S7-8LF24 3.00E-158 PGSC0005DMR40000500 PGSC00035MR40001795 ST4.03ch12.95.65.11 Fbox + FBA1 S7-8LF84 3.00E-128 PGSC0005DMR400002000 PGSC00035MR400027182 ST4.03ch12.91.69.37 Fbox + FBA1 S7-8LF84 1.00E-125 PGSC0003DMR400002000 PGSC0003DMR400027182 ST4.03ch12.32.10.81.32.211.80.07 Fbox + FBA1 S7-8LF84 1.00E-125 PGSC0003DMR400002841 PGSC0003DMR400028475 ST4.03ch12.91.69.13.2.211.80.07 S7-8LF84 1.00E-125 PGSC0003DMR400002847 PGSC0003DMR400028475 ST4.03ch12.91.69.13.2.211.80.07 Fbox + FBA1 S7-8LF2 1.00E-125 PGSC0003DMR400028487 PGSC0003DMR400028475 ST4.03ch12.92.2.216.05.92.2.216.05.92.2.16.92.92.16.92.92.17.92.16.92.17.92.10.92.17.92.17.92.16.92.17.92.17.92.17.92.10.92.17.92.17.	PGSC0003DMG400009445	PGSC0003DMP400016698	ST4.03ch01:26,409,15026,410,277	F-box + FBA1	S7-SLF4	1.00E-121
PMS200000MR40002580 PF3L00030Mr40004520 S14.03601/28.48.500.28.48.507 Phox + FBA1 S7-SLF11 1.00E-125 PGSC0003DMr40000551 PGSC0003DMr40001158 S74.0501/28.28.534.28.68.59.7 Fhox + FBA1 S7-SLF14 1.00E-155 PGSC0003DMr40000551 PGSC0003DMr400013975 S74.0501/28.95.57.29.25.65.11 Fhox + FBA1 S7-SLF14 1.00E-155 PGSC0003DMr400002500 PGSC0003DMr400013975 S74.0501/3.9.55.27.9.3.56.51 Fhox + FBA1 S7-SLF14 1.00E-122 PGSC0003DMr400045076 PSGC003DMr400045076 S74.0501/3.2.071.83.32.071.827 Fhox + FBA1 S7-SLF4 7.00E-12 PGSC0003DMr400045078 PSGC003DMr400045077 PSGC003DMr400045077 PSGC003DMr400045077 PSGC003DMr400045077 PSGC003DMr40002574 Fhox + FBA1 S7-SLF4 1.00E-125 PGSC0003DMr40002574 PGSC0003DMr40002587 PGSC0003DMr40002587 Fhox + FBA1 S7-SLF4 1.00E-22 PGSC0003DMr400002587 PGSC0003DMr40002587 S74.050030Mr400023875 Fhox + FBA1 S7-SLF1 1.00E-22 PGSC0003DMr400002587 PGSC0003DMr400023875 S74.0500310Mr400023875 Fhox + FBA1 S7-SLF2	PGSC0003DMG400009446	PGSC0003DMP400016699	ST4.03ch01:26,846,17126,847,775	F-box + FBA1	S7-SLF2	1.00E-111
Chschoologen/Characteristic FOSLOODS/M-R00006512 PSCCOODS/M-R00006512 PSCCOODS/M-R00006512 PSCCOODS/M-R00006512 PSCCOODS/M-R00001583 ST 4 03ch1/2 38 653.378.28 684 74 Froke + FEA1 ST S-LF2 1.00E-168 PSSCOODS/M-R00001661 PSSCOODS/M-R00011583 ST 4 03ch1/2 38.557.28 684 74 Froke + FEA1 ST S-LF2 1.00E-129 PSSCOODS/M-R00001661 PSSCOODS/M-R00001285 ST 4.00E-112 35.557.29 23.056.31 Froke + FEA1 ST S-LF4 1.00E-129 PSSCOODS/M-R00002000 PSSCOODS/M-R00002000 PSSCOODS/M-R00002000 ST 4.03E-112 20.167.135.201.017.01 Froke + FEA1 ST -SLF4 1.00E-129 PSSCOODS/M-R00002000 PSSCOODS/M-R00002000 PSSCOODS/M-R00020000 ST 4.03E-112 20.167.135.201.012.01 ST -SLF4 1.00E-129 PSSCOODS/M-R00002000 PSSCOODS/M-R00020287 ST 4.03E-112 20.167.135.201.012.01.012.01.012.01.012.01.012.01.012.01.012.01.012.01.012.01.012.01.012.012	PGSC0003DMG400026599	PGSC0003DMP400046220	S14.03ch01:28,485,60628,486,790	F-DOX	S7-SLF11	1.00E-125
Classical and Construction STATUSE Field and Status STATUSE STATUSE STATUSE PGSC0003DIMC400000851 PGSC0003DIMC40001937 STATUSE STATUSE <td< td=""><td>PGSC0003DMG400006514</td><td>PGSC0003DMP400011540</td><td>S14.03ch01.28,825,31428,825,912</td><td>F-DUX + FDAT</td><td>57-5LF14</td><td>1.00E-40</td></td<>	PGSC0003DMG400006514	PGSC0003DMP400011540	S14.03ch01.28,825,31428,825,912	F-DUX + FDAT	57-5LF14	1.00E-40
PGSC0003DMC400010961 PGSC0003DMC400019375 ST4.03ch0129.555.279.29.556.511 F-box + FBA1 S7.5LFBA 3.00E-65 PGSC0003DMC40002000 PGSC0003DMC40003755 ST4.03ch012.30.7063.78 F-box + FBA1 S7.5LF14 1.00E-102 PGSC0003DMC4000375 PGSC0003DMC40000716 ST4.03ch013.20.701627 F-box + FBA1 S7.5LF14 7.00E-21 PGSC0003DMC4000375 PGSC0003DMC40000716 ST4.03ch013.20.71637 F-box + FBA1 S7.5LF4 7.00E-21 PGSC0003DMC400003287 PGSC0003DMC400002876 ST4.03ch013.32.916.037 F-box + FBA1 S7.5LFA 1.00E-125 PGSC0003DMC400002849 PGSC0003DMC400002879 ST4.03ch013.02.65.80.03.037.65 F-box + FBA1 S7.5LFA 1.00E-22 PGSC0003DMC400002879 PGSC0003DMC400003829 F14.03ch013.02.45.80.60.03.87.65 F-box + FBA1 S7.5LF3 1.00E-22 PGSC0003DMC4000021478 PGSC0003DMC4000011185 ST4.03ch012.47.64.05.60.02.337.78 F-box + FBA1 S7.5LF3 1.00E-22 PGSC0003DMC4000021478 PGSC0003DMC400021475 PGSC0003DMC400021475 PGSC0003DMC400021475 PGSC0003DMC400021475 PGSC0003DMC4000021475 PGSC0003DMC400021475	PGSC0003DMG400006512	PGSC0003DMP400011538	ST4.03ch01:28 953 578 28 954 744	F-box + FBA3	S7-SLF1A	1.00E-136
PGSC0003DMC40002300 PGSC0003DMC40002305 F14.03ch13.04/02.47.30.453.376 F-box + FBA1 S7-SLF4 1.00E-122 PGSC0003DMC40004507 PGSC0003DMC40004507 F34.03ch13.2.708.173.32.218.037 F-box + FBA1 S7-SLF4 1.00E-125 PGSC0003DMC40004507 PGSC0003DMC400002548 F14.03ch113.2.2916.013.32.218.037 F-box + FBA1 S7-SLF4 1.00E-125 PGSC0003DMC40001581 PGSC0003DMC400002548 F14.03ch113.2.2916.613.32.218.037 F-box + FBA1 S7-SLF4 1.00E-125 PGSC0003DMC400002581 F14.03ch113.2.2916.63.224.447 F-box + FBA1 S7-SLF8 2.00E-88 PGSC0003DMC400002581 F14.03ch113.6.205.66.322.447 F-box + FBA1 S7-SLF9 4.00E-27 PGSC0003DMC400002781 F14.03ch113.6.205.60.0247.047 F-box + FBA1 S7-SLF2 1.00E-22 PGSC0003DMC400002747 F14.03ch012.42.08.00.0247.047 F-box + FBA1 S7-SLF3 3.00E-21 PGSC0003DMC400002748 PGSC0003DMC400027451 F14.03ch012.47.148.08.40.07.44.08.405 F-box + FBA1 S7-SLF3 3.00E-21 PGSC0003DMC400002747 PGSC0003DMC400027451 F14.03ch012.47.148.84.75.16.5 F-box + FBA1 <td< td=""><td>PGSC0003DMG400010961</td><td>PGSC0003DMP400019375</td><td>ST4.03ch01:29.555.27929.556.511</td><td>F-box + FBA1</td><td>S7-SLF8A</td><td>3.00E-95</td></td<>	PGSC0003DMG400010961	PGSC0003DMP400019375	ST4.03ch01:29.555.27929.556.511	F-box + FBA1	S7-SLF8A	3.00E-95
PRS20003DM640002000 PGSC0003DM64000380H PGSC0003DM6400038641 PGSC0003DM6400038641 PGSC0003DM6400038641 PGSC0003DM6400038641 PGSC0003DM6400038641 PGSC0003DM6400038641 PGSC0003DM6400038641 PGSC0003DM6400023M740002557 ST4 03ch01 33, 421, 528, 3342, 865 Fbox + FBA3 S7-SLF4 1 00E-138 PGSC0003DM6400028647 PGSC0003DM640002557 ST4 03ch01 33, 421, 528, 3342, 865 Fbox + FBA3 S7-SLF9 1 00E-23 PGSC0003DM6400022867 PGSC0003DM640003282 ST4 03ch01 50, 245, 808, 0-50, 033, 67 Fbox + FBA3 S7-SLF9 4 0.05E-27 PGSC0003DM6400022877 PGSC0003DM640003282 ST4 03ch01 50, 245, 808, 0-62, 003, 70 Fbox + FBA3 S7-SLF3 1 0.05E-22 PGSC0003DM6400002385 PGSC0003DM6400003353 PGSC0003DM6400003354 PGSC0003DM6400003354 PGSC0003DM6400003354 PGSC0003DM6400003354 PGSC0003DM6400003354 PGSC0003DM6400003355 PGSC0003DM6400003355 PGSC0003DM6400003355 PGSC0003DM6400003355 PGSC0003DM6400003355 PGSC0003DM6400003355 PGSC0003DM6400003355 PGSC0003DM640003355 PGSC0003DM640003355 PGSC0003DM640003355 PGSC0003DM640003258 ST4 03ch0457,80,975,57,848,210 Fbox PS-SLF2 1 0.05E-23 <	PGSC0003DMG400029040	PGSC0003DMP400050586	ST4.03ch01:30.452.40730.453.378	F-box + FBA1	S7-SLF9	1.00E-122
PGSC0003DMG40004900 PGSC0003DMF40006774 ST 4 03ch0132 78 (51.3 278) 630 Fbox + FBA1 ST-SLF4 7.00E-21 PGSC0003DMG40001491 PGSC0003DMF40002848 ST 4 03ch0133 421,528.33,422,865 Fbox + FBA3 ST-SLFA 1.00E-138 PGSC0003DMG40002266 PGSC0003DMF400028248 ST 4 03ch01130,763,667.40,778,427 Fbox + FBA1 ST-SLFA 1.00E-23 PGSC0003DMG400022764 PGSC0003DMF40002828 PGSC0003DMF40003824 ST 4 03ch01160,045,805.60,037,26 Fbox + FBA1 ST-SLF3 1.00E-23 PGSC0003DMG400002878 PGSC0003DMF40001112 ST 4 03ch01160,042,065.60,042,300 Fbox + FBA1 ST-SLF3 3.00E-21 PGSC0003DMG400002149 PGSC0003DMF40001123 ST 4 03ch012,64,711,089,46,712,488 Fbox FBA1 ST-SLF2 1.00E-22 PGSC0003DMG40002149 PGSC0003DMF40003241 ST 4 03ch04,57,780,513,57,781,975 Fbox FBA1 ST-SLF2 1.00E-23 PGSC0003DMG40002489 PGSC0003DMF40003241 ST 4 03ch04,57,780,471,784,471,889,471,2488 Fbox FBA1 ST-SLF2 1.00E-25 PGSC0003DMG40002489 PGSC0003DMF40003241 ST 4 03ch04,57,80,441,105 Fbox <t< td=""><td>PGSC0003DMG400020000</td><td>PGSC0003DMP400034705</td><td>ST4.03ch01:32,070,81332,071,627</td><td>F-box + FBA1 (ψ)</td><td>S7-SLF14</td><td>1.00E-100</td></t<>	PGSC0003DMG400020000	PGSC0003DMP400034705	ST4.03ch01:32,070,81332,071,627	F-box + FBA1 (ψ)	S7-SLF14	1.00E-100
PGSC0003DMC400038441 PGSC0003DMC40002848 F14 03ch133 216 913.2916 037 Flox + FBA3 S7-SLF4 1.00E-125 PGSC0003DMC400016927 PGSC0003DMC40002848 ST4.03ch014.0763.687.40.764.427 Flox + FBA1 S7-SLF6 1.00E-136 PGSC0003DMC400022849 PGSC0003DMC40003DMF40003DMF400032977 ST4.03ch01138.222.546.56.224.447 Flox + FBA1 S7-SLF9 4.00E-27 PGSC0003DMC400002827 PGSC0003DMF40003629 ST4.03ch01130.245.380.60.247.024 Flox + FBA3 S7-SLF2 1.00E-23 PGSC0003DMC400002847 PGSC0003DMF40001118 ST4.03ch0117.024.056.042.005 Flox + FBA1 S7-SLF2 1.00E-22 PGSC0003DMC400001284 PGSC0003DMF400001234 ST4.03ch04.37.708.13.57.788.497 Flox + FBA1 S7-SLF2 1.00E-25 PGSC0003DMC400012849 PGSC0003DMF40004349 ST4.03ch04.57.806.05.47.57.86.201 Flox + FBA3 S7-SLF2 1.00E-23 PGSC0003DMC400013849 PGSC0003DMF40004329 ST4.03ch04.57.806.05.47.57.802.05 Flox + FBA3 S7-SLF2 1.00E-23 PGSC0003DMC400013409 PGSC0003DMF40004329 ST4.03ch04.57.806.05.47.57.802.05 Flox + FBA3 S7-SLF2 1.00E-23	PGSC0003DMG400045078	PGSC0003DMP400067182	ST4.03ch01:32,798,72832,799,843	F-box + FBA1	S7-SLF4	7.00E-21
PGSC0003DMG40014891 PGSC0003DMF400028349 ST4.03ch013.241,262.33,422,66 Fbox + FBA3 S7-SLF6 1.00E-168 PGSC0003DMG400028264 PGSC0003DMF400038281 ST4.03ch01:60,265.68,224,477 Fbox + FBA3 S7-SLF5 1.00E-22 PGSC0003DMG40002827 PGSC0003DMF400011123 ST4.03ch01:60,245,380.60,247,027 Fbox + FBA3 S7-SLF3 1.00E-22 PGSC0003DMG400002827 PGSC0003DMF400011123 ST4.03ch01:60,245,380.60,247,027 Fbox + FBA3 S7-SLF3 1.00E-22 PGSC0003DMG400002828 PGSC0003DMF40001124 PGSC0003DMF40001244 Fbox + FBA3 S7-SLF3 1.00E-22 PGSC0003DMG40002848 PGSC0003DMF400003242 ST4.03ch04:57,810,755.57,881,057 Fbox S7-SLF2 1.00E-22 PGSC0003DMG400028483 PGSC0003DMF40004303 ST4.03ch04:57,80,755.57,882,627 Fbox S7-SLF2 1.00E-25 PGSC0003DMG400028428 PGSC0003DMF40004302 ST4.03ch04:57,80,755.57,882,627 Fbox S7-SLF2 1.00E-25 PGSC0003DMG40002862 PGSC0003DMF400043025 ST4.03ch04:57,80,755.57,882,627 Fbox S7-SLF3 1.00E-26 PGSC0003DMG40002862 PGSC0003DMF4000430	PGSC0003DMG400038641	PGSC0003DMP400060745	ST4.03ch01:32,916,91332,918,037	F-box + FBA3	S7-SLF4	1.00E-125
PGSC0003DMG400018927 PGSC0003DMF40002887 ST4.03ch0140,768,667,40,764,427 Fbox + FBA1 S7-SLF3 2.00E-83 PGSC0003DMG400022888 PGSC0003DMF40003829 ST4.03ch0150,038,805,60,038,756 Fbox + FBA3 S7-SLF3 4.00E-27 PGSC0003DMG400002827 PGSC0003DMF400011123 ST4.03ch0150,0422,025,60,023,077 Fbox + FBA3 S7-SLF3 4.00E-27 PGSC0003DMG4000024178 PGSC0003DMF400011123 ST4.03ch0150,242,025,60,023,077 Fbox + FBA1 S7-SLF5 1.00E-22 PGSC0003DMG4000024178 PGSC0003DMF400001241 ST4.03ch04:57,788,313,57,789,477 Fbox S7-SLF2 5.00E-29 PGSC0003DMG400024829 PGSC0003DMF400043032 ST4.03ch04:57,788,213,57,789,477 Fbox S7-SLF2 1.00E-23 PGSC0003DMG400024829 PGSC0003DMF400043032 ST4.03ch04:57,880,547,57,882,298 F-box S7-SLF2 1.00E-23 PGSC0003DMG400024829 PGSC0003DMF400033055 ST4.03ch04:57,978,642,975,564,1433,376,977,975,977,975,977,975,977,975,	PGSC0003DMG400014981	PGSC0003DMP400026348	ST4.03ch01:33,421,52833,422,865	F-box + FBA3	S7-SLF6	1.00E-136
PGSC0003DMG400022864 PGSC0003DMP400039281 ST4.03ch01:58,222,546.58,224,447 Fbox + FBA1 S7-SLF5 1.00E-23 PGSC0003DMG400002877 PGSC0003DMP400011123 ST4.03ch01:60,243,380,60,247,024 Fbox + FBA3 S7-SLF5 1.00E-21 PGSC0003DMG400002137 PGSC0003DMP400011138 ST4.03ch01:60,422,083,60,423,007 Fbox + FBA1 S7-SLF5 1.00E-22 PGSC0003DMG40002147 PGSC0003DMP40001221 ST4.03ch01:744,008,41,714,403 Fbox + FBA1 S7-SLF5 1.00E-22 PGSC0003DMG400024433 PGSC0003DMP400003221 ST4.03ch01:77,88,313,57,788,947 Fbox S7-SLF2 3.00E-29 PGSC0003DMG400024429 PGSC0003DMP40004303 ST4.03ch01:57,80,155,57,811,675 Fbox S7-SLF2 1.00E-23 PGSC0003DMG400024429 PGSC0003DMP40004303 ST4.03ch01:57,80,154,71,789,229 Fbox S7-SLF2 1.00E-23 PGSC0003DMG400024297 PGSC0003DMP40004303 ST4.03ch01:57,80,154,71,789,229 Fbox S7-SLF3 8.00E-23 PGSC0003DMF400023215 ST4.03ch01:57,80,154,71,789,229 Fbox S7-SLF3 8.00E-24 PGSC0003DMF400023217 ST4.03ch01:43,137,761,754,750,752,829,299	PGSC0003DMG400016927	PGSC0003DMP400029579	ST4.03ch01:40,763,68740,764,427	F-box + FBA1	S7-SLF8A	2.00E-88
PGSC0003DMG400022955 PGSC0003DMP40001929 ST4.03ch01:60.058,805.40.038,756 Fbox + FBA3 S7-SLF9 4.00E-27 PGSC0003DMG400006293 PGSC0003DMP400011128 ST4.03ch01:60.422,085.60.423,300 Fbox + FBA1 S7-SLF3 3.00E-21 PGSC0003DMG4000021478 PGSC0003DMP40001128 ST4.03ch01:60.422,085.60.423,307 Fbox + FBA1 S7-SLF3 1.00E-22 PGSC0003DMG400002439 PGSC0003DMP40000325 ST4.03ch02:77.788,131.57.7789,477 Fbox S7-SLF2 5.00E-29 PGSC0003DMG400024282 PGSC0003DMP40004302 ST4.03ch04:57.786,111.675 Fbox S7-SLF2 1.00E-25 PGSC0003DMG400024282 PGSC0003DMP40004302 ST4.03ch04:57.800,755.17.842.299 Fbox S7-SLF2 1.00E-25 PGSC0003DMG40012305 PGSC0003DMP40003394 ST4.03ch05:780,755.77.820,261 Fbox S7-SLF3 8.00E-23 PGSC0003DMG40012305 PGSC0003DMP400023915 ST4.03ch05:49,2730,70.227,812 Fbox S7-SLF3 8.00E-23 PGSC0003DMP400023215 ST4.03ch05:41,02,731,512 Fbox + FBA1 S7-SLF3 8.00E-23 PGSC0003DMP400023215 ST4.03ch05:41,02,973,512 Fbox + FBA1	PGSC0003DMG400022664	PGSC0003DMP400039281	ST4.03ch01:58,222,54658,224,447	F-box + FBA1	S7-SLF5	1.00E-23
PGSC0003DMG400006277 PGSC0003DMP400037241 ST4.03ch0160.245.380.60.247.024 Fbox + FBA1 S7-SLF2 1.00E-22 PGSC0003DMG400002147 PGSC0003DMP400037241 ST4.03ch016.02.20.85.00.42.20.85.00.42.307 Fbox + FBA1 S7-SLF3 1.00E-22 PGSC0003DMG40002147 PGSC0003DMP40003221 ST4.03ch016.37.78.313.57.789.447 Fbox S7-SLF1 7.00E-25 PGSC0003DMG400024833 PGSC0003DMP400043043 ST4.03ch04.57.78.8131.5.77.81.475 Fbox S7-SLF2 3.00E-29 PGSC0003DMG400024825 PGSC0003DMP400043023 ST4.03ch04.57.806.547.7.58.62.051 Fbox S7-SLF2 1.00E-23 PGSC0003DMG400014829 PGSC0003DMP400032944 ST4.03ch05.9.172.806.347.7.58.62.051 Fbox S7-SLF3 8.00E-23 PGSC0003DMG400013491 PGSC0003DMP400023315 ST4.03ch05.9.172.804.9.178.547 Fbox S7-SLF3 8.00E-28 PGSC0003DMG40001352 PGSC0003DMP400023315 ST4.03ch05.9.273.070.9.278.152 Fbox S7-SLF3 8.00E-28 PGSC0003DMG40001752 PGSC0003DMP400023355 ST4.03ch06.41.307.784.41.338.69 Fbox S7-SLF3 5.00E-22 PGSC0003DMG40001752 PGSC	PGSC0003DMG400022858	PGSC0003DMP400039629	ST4.03ch01:60,036,80560,038,756	F-box + FBA3	S7-SLF9	4.00E-27
PGSC0003DMR400008293 PGSC0003DMR400001294 PGSC0003DMR400002321 ST4.03ch02:46,711,089.46,712,488 Fbox FBA1 S7-SLF3 3.00E-21 PGSC0003DMG400001294 PGSC0003DMP400002321 ST4.03ch02:46,711,089.46,712,488 Fbox S7-SLF3 7.00E-22 PGSC0003DMG400002482 PGSC0003DMP40004303 ST4.03ch04:57,780,313.57,788,292 Fbox S7-SLF2 3.00E-29 PGSC0003DMG400024829 PGSC0003DMP40004302 ST4.03ch04:57,802,529 Fbox S7-SLF2 1.00E-22 PGSC0003DMG400024829 PGSC0003DMP40004302 ST4.03ch04:57,802,529 Fbox S7-SLF2 1.00E-25 PGSC0003DMG400013491 PGSC0003DMP400023855 ST4.03ch04:57,802,529 Fbox S7-SLF3 8.00E-23 PGSC0003DMG400013491 PGSC0003DMP400023855 ST4.03ch06:41,330,527,370.3,278,152 Fbox FBA1 S7-SLF9 3.00E-22 PGSC0003DMG400013051 PGSC0003DMP400023855 ST4.03ch06:41,330,354,41,331,682 Fbox FBA3 S7-SLF2 2.00E-21 PGSC0003DMG400013051 PGSC0003DMP400023052 ST4.03ch06:41,337,764,41,338,969 Fbox S7-SLF2 2.00E-22	PGSC0003DMG400006277	PGSC0003DMP400011123	ST4.03ch01:60,245,38060,247,024	F-box + FBA3	S7-SLF2	1.00E-22
PGSC0003DMR44002147/8 PGSC0003DMR400032147 S14 03Ch02-17,4444,30 P-box S7-SLF3 1.00E-22 PGSC0003DMR400003935 PGSC0003DMP400001459 S14 03Ch02-47,718,813,57,789,497 Fbox S7-SLF2 5.00E-29 PGSC0003DMR400024829 PGSC0003DMP400043028 S14 03Ch04-57,860,547,778,82,292 Fbox S7-SLF2 1.00E-23 PGSC0003DMG400024825 PGSC0003DMP400043028 S14 03Ch04-57,860,547,778,846,210 F-box S7-SLF2 1.00E-23 PGSC0003DMG400013401 PGSC0003DMP40002385 S14 03Ch05,542,979,3644,210 F-box S7-SLF3 8.00E-23 PGSC0003DMG400013401 PGSC0003DMP400023817 S14 03Ch05,9,273,070,9,278,152 F-box S7-SLF9 3.00E-25 PGSC0003DMG40001350 PGSC0003DMP40002355 S14 03Ch05,41,307,44,1338,499 Fbox S7-SLF9 3.00E-22 PGSC0003DMG400013031 PGSC0003DMP40002355 S14 03Ch06,41,332,637,41,338,498 Fbox F7-SLF2 7.00E-21 PGSC0003DMG4000013031 PGSC0003DMP400023092 S14 03Ch06,41,352,637,41,353,830 Fbox F7-SLF2 7.00E-21 PGSC0003DMG4000013031 PGSC0003DMP400003555 S1	PGSC0003DMG400006293	PGSC0003DMP400011158	S14.03ch01:60,422,08560,423,307	F-box + FBA1	S7-SLF3	3.00E-21
PGSC0003DMG400001294 PGSC0003DMF400001294 F14 0301022401 ST4 0301024403 F14 0301024403 ST4 030104457,883,377,788,497 F-box STSLF2 S.00E-29 PGSC0003DMG400024839 PGSC0003DMF400043043 ST4 03010457,880,547.57,789,497 F-box STSLF2 1.00E-23 PGSC0003DMG400024829 PGSC0003DMF400043028 ST4 03010457,860,547.57,789,292 F-box STSLF2 1.00E-25 PGSC0003DMG40012305 PGSC0003DMF40003944 ST4 0301055,462,979.5,464,210 F-box STSLF2 1.00E-25 PGSC0003DMG40013520 PGSC0003DMF400023917 ST4.0301055,9172,804.41,78,547 F-box STSLF9 4.00E-29 PGSC0003DMG400030752 PGSC0003DMF400023917 ST4.03010541,30,334,714.41,38,896 F-box STSLF9 3.00E-22 PGSC0003DMG400030752 PGSC0003DMF400023915 ST4.03040641,337,764.41,38,896 F-box STSLF2 2.00E-21 PGSC0003DMG400030752 PGSC0003DMF400023915 ST4.03040774,2476,500.42,485,182 F-box STSLF2 2.00E-21 PGSC0003DMG40002424 PGSC0003DMF400033641 ST4.030407756,88,467.5,56,980,407 F-box STSLF2 2.00E-22	PGSC0003DMG400021478	PGSC0003DMP40003/241	ST4.03ch02:17,440,09417,444,430	F-DOX + FBA1	57-5LF5	1.00E-22
Fight Colored Dimensional Construction Fight Colored Dimensional Colored Dimension Colored Dimensional Colored Dimensional Colored Dimensional Col	PGSC0003DMG400001294	PGSC0003DMP400061459	ST4.03ch04:57 789 313 57 780 407	F-DUX E-box	97-9LF 13	7.00E-25
PGSC0003DMG40002482 PGSC0003DMF40004303 ST4.03ch04:57,860,54757,862,051 F-box ST3.LF2 1.00E-23 PGSC0003DMG40002482 PGSC0003DMF400043032 ST4.03ch04:57,860,54757,862,051 F-box ST3.LF2 1.00E-23 PGSC0003DMG400013491 PGSC0003DMF400023858 ST4.03ch05:5,427.97,95,544.210 F-box ST3.LF13 8.00E-28 PGSC0003DMG400013520 PGSC0003DMF400023817 ST4.03ch05:9,9172,804.9,178,547 F-box + FBA1 ST3.LF13 8.00E-28 PGSC0003DMG400013750 PGSC0003DMF400023317 ST4.03ch05:49,024,886.49,051,148 F-box + FBA3 ST3.LF13 5.00E-22 PGSC0003DMG400030752 PGSC0003DMF400053555 ST4.03ch06:41,323,764.41,333,869 F-box ST3.LF2 7.00E-21 PGSC0003DMG400030752 PGSC0003DMF400053545 ST4.03ch07:3,828,3923829 F-box + FBA3 ST3.LF2 7.00E-21 PGSC0003DMG400030752 PGSC0003DMF400053545 ST4.03ch07:3,828,3923829 F-box + FBA3 ST3.LF2 7.00E-21 PGSC0003DMG400022779 PGSC0003DMF400038681 ST4.03ch07:50,488,65.01,04,856 F-box + FBA1 ST3.LF2 7.00E-23 PGSC0003DMG400021769	PGSC0003DMG400024833	PGSC0003DMP400043043	ST4.03ch04:57,810,515,57,811,675	F-box + FBA3	S7-SLF2	3.00E-29
PGSC0003DMG400024825 PGSC0003DMP400043028 ST4.03ch05:5,462,979.5,548,4210 F-box S7-SLF2 1.00E-23 PGSC0003DMG400103205 PGSC0003DMP400033944 ST4.03ch05:5,462,979.5,548,4210 F-box S7-SLF13 8.00E-28 PGSC0003DMG400013120 PGSC0003DMP400023917 ST4.03ch05:9,273,070.9,278,152 F-box FBA1 S7-SLF9 3.00E-28 PGSC0003DMG400030752 PGSC0003DMP40002355 ST4.03ch05:49,049,885.49,049,885.49,051,148 F-box S7-SLF9 3.00E-22 PGSC0003DMG400030752 PGSC0003DMP40002355 ST4.03ch06:41,330,764.41,338,8969 F-box FBA3 S7-SLF2 2.00E-21 PGSC0003DMG400001301 PGSC0003DMP40002302 ST4.03ch07:43,828,392.3,829,411 F-box S7-SLF2 2.00E-21 PGSC0003DMG40002156 PGSC0003DMP40003681 ST4.03ch07:50,048,485.690.47,475.500.42,485,182 F-box S7-SLF2 9.00E-33 PGSC0003DMF400032547 PGSC0003DMP40003651 ST4.03ch07:50,194,896.50,01.42,662 F-box S7-SLF2 2.00E-24 PGSC0003DMF400032247 PGSC0003DMP40003551 ST4.03ch07:55,683,471.55,689.407 F-box S7-SLF3 5.00E-24	PGSC0003DMG400024829	PGSC0003DMP400043032	ST4.03ch04:57.860.54757.862.051	F-box	S7-SLF2	1.00E-23
PGSC0003DMG401023052 PGSC0003DMP400039944 ST4.03ch05:5,462;979.5,464,210 F-box S7-SLF13 8.00E-28 PGSC0003DMG400013401 PGSC0003DMP400023858 ST4.03ch05:9,172,804.9,178,477 F-box + FBA1 S7-SLF9 4.00E-29 PGSC0003DMG400013520 PGSC0003DMP400023213 ST4.03ch05:9,273,070.9,278,152 F-box + FBA1 S7-SLF9 4.00E-29 PGSC0003DMG4000030753 PGSC0003DMP400053555 ST4.03ch06:41,330,354.41,313,1682 F-box + FBA3 S7-SLF2 2.00E-21 PGSC0003DMG400030752 PGSC0003DMP400023092 ST4.03ch06:41,352,687.41,353,830 F-box + FBA1 S7-SLF2 2.00E-21 PGSC0003DMG40000257 PGSC0003DMP400023661 ST4.03ch07:3,828,382.3,829,411 F-box S7-SLF2 9.00E-20 PGSC0003DMG40002124 PGSC0003DMP400035515 ST4.03ch07:5,126,875.50,132,629 F-box + FBA1 S7-SLF2 9.00E-23 PGSC0003DMG40002244 PGSC0003DMP400035515 ST4.03ch07:5,148,309.5,641,73,70 F-box + FBA1 S7-SLF3 8.00E-24 PGSC0003DMG40002277 PGSC0003DMP400035471 ST4.03ch07:5,168,647.55,609,807 F-box + FBA1 S7-SLF3 5.00E-23 PGSC0003DMG400	PGSC0003DMG400024825	PGSC0003DMP400043028	ST4.03ch04:57,890,75557,892,929	F-box	S7-SLF2	1.00E-25
PGSC0003DMG400013491 PGSC0003DMP400023858 ST4.03ch05:9,172,804.9,178,547 F-box + FBA1 S7-SLF13 8.00E-28 PGSC0003DMG400013520 PGSC0003DMP400023917 ST4.03ch05:9,273,070.9,278,152 F-box + FBA1 S7-SLF13 5.00E-29 PGSC0003DMG400030753 PGSC0003DMP400053555 ST4.03ch06:41,337,764.41,338,969 F-box + FBA3 S7-SLF13 5.00E-22 PGSC0003DMG400030752 PGSC0003DMP400053555 ST4.03ch06:41,337,764.41,338,969 F-box S7-SLF2 2.00E-21 PGSC0003DMG400013031 PGSC0003DMP400062361 ST4.03ch06:41,337,764.41,338,969 F-box S7-SLF5 1.00E-20 PGSC0003DMG400013021 PGSC0003DMP400062361 ST4.03ch07:3,228,392.3,289,411 F-box + FBA1 S7-SLF5 1.00E-20 PGSC0003DMG400020424 PGSC0003DMP400036615 ST4.03ch07:50,128,675.50,132,629 F-box + FBA1 S7-SLF3 5.00E-23 PGSC0003DMG400013939 PGSC0003DMP400036587 ST4.03ch07:51,183,030.54,137.370 F-box + FBA1 S7-SLF5 8.00E-24 PGSC0003DMG400012267 PGSC0003DMP400032288 ST4.03ch07:55,683,647.55,690,807 F-box + FBA1 S7-SLF16 5.00E-23 PGSC0	PGSC0003DMG401023052	PGSC0003DMP400039944	ST4.03ch05:5,462,9795,464,210	F-box	S7-SLF13	8.00E-23
PGSC0003DMG400013520 PGSC0003DMP400023217 ST4.03ch05:9,273,070.9,278,152 F-box FBA1 S7-SLF9 4.00E-29 PGSC0003DMG400003751 PGSC0003DMP400023213 ST4.03ch05:49,049,883.49,051,148 F-box FBA3 S7-SLF13 5.00E-22 PGSC0003DMG400030752 PGSC0003DMP400053555 ST4.03ch06:41,337,764.41,330,354.41,331,862 F-box FBA1 S7-SLF2 2.00E-21 PGSC0003DMG400010301 PGSC0003DMP400023615 ST4.03ch06:41,337,764.41,330,850 F-box FBA1 S7-SLF2 2.00E-21 PGSC0003DMG400021267 PGSC0003DMP400023661 ST4.03ch07:3628,392.3829,411 F-box FBA1 S7-SLF3 1.00E-20 PGSC0003DMG400022145 PGSC0003DMP400035515 ST4.03ch07:50,094,896.50,104,856 F-box FBA1 S7-SLF3 8.00E-24 PGSC0003DMG400022273 PGSC0003DMP40003551 ST4.03ch07:50,128,675.50,132,629 F-box + FBA1 S7-SLF3 5.00E-23 PGSC0003DMG400002273 PGSC0003DMP40003588 ST4.03ch07:55,683,647.55,603,047 F-box S7-SLF3 5.00E-26 PGSC0003DMG400012267 PGSC0003DMP400003874 ST4.03ch08:3,209,335.3210.53,1135.41337.76	PGSC0003DMG400013491	PGSC0003DMP400023858	ST4.03ch05:9,172,8049,178,547	F-box + FBA1	S7-SLF13	8.00E-28
PGSC0003DMG400013111 PGSC0003DMP400023213 ST4.03ch05:49,049,885.49,051,148 F-box ST-SLF9 3.00E-25 PGSC0003DMG400030753 PGSC0003DMP400053555 ST4.03ch06:41,337,764.41,338,689 F-box + FBA3 ST-SLF2 2.00E-21 PGSC0003DMG400030753 PGSC0003DMP400023092 ST4.03ch06:41,337,764.41,338,880 F-box + FBA1 ST-SLF2 2.00E-21 PGSC0003DMG40002156 PGSC0003DMP40008361 ST4.03ch06:41,352,637.41,353,830 F-box + FBA1 ST-SLF2 9.00E-33 PGSC0003DMG40002442 PGSC0003DMP400035541 ST4.03ch07:42,476,500.42,485,182 F-box + FBA1 ST-SLF2 9.00E-33 PGSC0003DMG400202442 PGSC0003DMP400035541 ST4.03ch07:50,128,675.50,104,865 F-box + FBA1 ST-SLF2 9.00E-28 PGSC0003DMG400043939 PGSC0003DMP400035545 ST4.03ch07:50,128,675.50,104,865 F-box + FBA3 ST-SLF3 5.00E-28 PGSC0003DMG400043939 PGSC0003DMP400036228 ST4.03ch07:55,683,647.133,707 F-box + FBA1 ST-SLF3 5.00E-28 PGSC0003DMG400012267 PGSC0003DMP400021719 ST4.03ch09:3,289,305.3,210,537 F-box + FBA1 ST-SLF2 2.00E-24 PGSC	PGSC0003DMG400013520	PGSC0003DMP400023917	ST4.03ch05:9,273,0709,278,152	F-box + FBA1	S7-SLF9	4.00E-29
PGSC0003DMG400003753 PGSC0003DMP400053555 ST4.03ch06:41,332,634.41,331,682 F-box FBA3 S7-SLF13 5.00E-22 PGSC0003DMG400013031 PGSC0003DMP400023092 ST4.03ch06:41,332,687.4.41,338,969 F-box S7-SLF2 2.00E-21 PGSC0003DMG400013031 PGSC0003DMP400023092 ST4.03ch06:41,352,687.4.41,338,969 F-box S7-SLF2 2.00E-21 PGSC0003DMG40002156 PGSC0003DMP400036361 ST4.03ch07.42,476,500.42,485,182 F-box + FBA1 S7-SLF2 9.00E-33 PGSC0003DMG40020424 PGSC0003DMP400035471 ST4.03ch07.50,126,875.50,126,269 F-box + FBA1 S7-SLF3 5.00E-24 PGSC0003DMG40002273 PGSC0003DMP400035585 ST4.03ch07.50,126,875.50,364.75,508,364 F-box S7-SLF3 5.00E-23 PGSC0003DMG400022273 PGSC0003DMP400032228 ST4.03ch07.55,683,664.75,508,907 F-box S7-SLF1A 2.00E-24 PGSC0003DMG400012267 PGSC0003DMP40003228 ST4.03ch08:3,886,902.3,888,342 F-box + FBA1 S7-SLF5 3.00E-25 PGSC0003DMG400012269 PGSC0003DMP40003874 ST4.03ch09:3,209,305.3,210,537 F-box S7-SLF6 2.00E-22 PGSC0	PGSC0003DMG400013111	PGSC0003DMP400023213	ST4.03ch05:49,049,88549,051,148	F-box	S7-SLF9	3.00E-25
PGSC0003DMG40003752 PGSC0003DMP400023554 ST4.03ch06:41,357,76441,338,869 F-box S7-SLF2 2.00E-21 PGSC0003DMG400010257 PGSC0003DMP400023092 ST4.03ch06:41,352,63741,353,830 F-box + FBA1 S7-SLF2 7.00E-21 PGSC0003DMG400040257 PGSC0003DMP400036681 ST4.03ch07:3,828,3923,829,411 F-box + FBA1 S7-SLF2 9.00E-33 PGSC0003DMG40002424 PGSC0003DMP400035471 ST4.03ch07:50,1094,89650,104,856 F-box S7-SLF2 2.00E-28 PGSC0003DMG400022434 PGSC0003DMP400035515 ST4.03ch07:50,128,67550,132,629 F-box + FBA1 S7-SLF3 5.00E-23 PGSC0003DMG400022273 PGSC0003DMP400038515 ST4.03ch07:55,683,64755,690,807 F-box S7-SLF14 2.00E-24 PGSC0003DMG400012267 PGSC0003DMP400032228 ST4.03ch07:55,683,64755,690,807 F-box S7-SLF14 2.00E-28 PGSC0003DMG400012667 PGSC0003DMP400038288 ST4.03ch09:3,290,3053,210,537 F-box S7-SLF2 3.00E-25 PGSC0003DMG400002676 PGSC0003DMP400008767 ST4.03ch09:43,584,21243,586,601 F-box S7-SLF2 4.00E-23 PGSC0003DMG400003797	PGSC0003DMG400030753	PGSC0003DMP400053555	ST4.03ch06:41,330,35441,331,682	F-box + FBA3	S7-SLF13	5.00E-22
PGSC0003DMG400013031 PGSC0003DMP400023092 ST4.03ch06:41,352,83741,353,830 F-box + FBA1 S7-SLF2 7.00E-21 PGSC0003DMG400021156 PGSC0003DMP40003261 ST4.03ch07:42,476,500.42,485,182 F-box FBA1 S7-SLF2 9.00E-33 PGSC0003DMG400020424 PGSC0003DMP400035515 ST4.03ch07:50,128,675.50,132,629 F-box + FBA1 S7-SLF5 8.00E-24 PGSC0003DMG400022273 PGSC0003DMP400035515 ST4.03ch07:51,128,675.50,132,629 F-box + FBA3 S7-SLF3 5.00E-23 PGSC0003DMG400022273 PGSC0003DMP400035515 ST4.03ch07:55,48,647.55,690,807 F-box + FBA1 S7-SLF3 5.00E-23 PGSC0003DMG400022273 PGSC0003DMP400032228 ST4.03ch07:55,683,647.55,690,807 F-box + FBA1 S7-SLF1 2.00E-24 PGSC0003DMG400012267 PGSC0003DMP400021719 ST4.03ch09:3,290,305.3,210,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400003769 PGSC0003DMP400003874 ST4.03ch09:3,293,015.50,932,911 F-box S7-SLF2 2.00E-22 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:50,943,97150,946,723 F-box + FBA1 S7-SLF2 2.00E-23	PGSC0003DMG400030752	PGSC0003DMP400053554	ST4.03ch06:41,337,76441,338,969	F-box	S7-SLF2	2.00E-21
PGSC0003DMG40004257 PGSC0003DMP400062361 S14.03ch07:328,392.392.392,392,411 F-box S7-SLF5 1.00E-20 PGSC0003DMG40002142 PGSC0003DMP400036681 ST4.03ch07:50,094,898.50,104,826,5182 F-box S7-SLF2 2.00E-28 PGSC0003DMG400220445 PGSC0003DMP400035515 ST4.03ch07:50,094,898.50,104,826,Fbox S7-SLF2 2.00E-28 PGSC0003DMG400022273 PGSC0003DMP400038588 ST4.03ch07:50,126,87550,132,629 F-box + FBA1 S7-SLF3 5.00E-23 PGSC0003DMG400022773 PGSC0003DMP400038588 ST4.03ch07:56,83,64755,690,807 F-box S7-SLF5 3.00E-25 PGSC0003DMG40002267 PGSC0003DMP400032288 ST4.03ch08:58,663,55.61,66,828 F-box S7-SLF5 3.00E-25 PGSC0003DMG40001267 PGSC0003DMP40002874 ST4.03ch09:3,209,3053,210,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400002699 PGSC0003DMP400006766 ST4.03ch09:43,584,21243,586,601 F-box S7-SLF2 7.00E-23 PGSC0003DMG400003797 PGSC0003DMP400006766 ST4.03ch09:50,974,79750,975,936 F-box + FBA1 S7-SLF2 5.00E-26 PGSC0003DMG400003797 PGSC0003DMP40000	PGSC0003DMG400013031	PGSC0003DMP400023092	ST4.03ch06:41,352,63741,353,830	F-box + FBA1	S7-SLF2	7.00E-21
PGSC0003DMG400021156 PGSC0003DMF40003641 S14.03ch07:22,476,500.42,425,122 F-box + FBA1 S7-SLF2 2.00E-33 PGSC0003DMG40002424 PGSC0003DMP400035615 ST4.03ch07:50,126,875.50,132,629 F-box + FBA1 S7-SLF2 2.00E-24 PGSC0003DMG400022273 PGSC0003DMP400038515 ST4.03ch07:55,126,875.50,132,629 F-box + FBA1 S7-SLF3 5.00E-24 PGSC0003DMG400022273 PGSC0003DMP400038588 ST4.03ch07:55,683,647.55,690,807 F-box S7-SLF1A 2.00E-24 PGSC0003DMG400012267 PGSC0003DMP400032228 ST4.03ch08:56,165,635.56,166,828 F-box S7-SLF5 3.00E-25 PGSC0003DMG400012267 PGSC0003DMP40004838 ST4.03ch09:3,290,305.3,210,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400012667 PGSC0003DMP40004838 ST4.03ch09:3,584,212.43,586,611 F-box S7-SLF2 4.00E-23 PGSC0003DMG400003797 PGSC0003DMP400008767 ST4.03ch09:50,930,115.50,932,391 F-box S7-SLF2 7.00E-23 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:55,974,797.50,975,936 F-box S7-SLF2 8.00E-26 PGSC0003DMG400003797 PGSC0003DMP40001841 ST4.03ch09:55,170,298.55,171,874 F-box <	PGSC0003DMG400040257	PGSC0003DMP400062361	S14.03ch07:3,828,3923,829,411	F-box	S7-SLF5	1.00E-20
PGSC0003DMG400020424 PGSC0003DMF400033411 S14.03ch07.30,094,69550,104,856 F-box S7-SLF2 2.00E-28 PGSC0003DMG400043939 PGSC0003DMP400035515 ST4.03ch07.50,126,87550,132,629 F-box + FBA1 S7-SLF3 5.00E-23 PGSC0003DMG400022273 PGSC0003DMP400038588 ST4.03ch07.55,683,64755,690,807 F-box + FBA1 S7-SLF1A 2.00E-24 PGSC0003DMG400012267 PGSC0003DMP400032228 ST4.03ch08:3,886,9023,888,342 F-box + FBA1 S7-SLF1A 2.00E-24 PGSC0003DMG400012267 PGSC0003DMP400032288 ST4.03ch08:3,886,9023,888,342 F-box S7-SLF2 4.00E-28 PGSC0003DMG400012267 PGSC0003DMP40004838 ST4.03ch09:3,209,3053,210,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400012669 PGSC0003DMP40000488 ST4.03ch09:3,584,21243,586,601 F-box S7-SLF2 4.00E-23 PGSC0003DMG400003796 PGSC0003DMP400006767 ST4.03ch09:3,930,11550,932,931 F-box S7-SLF2 5.00E-26 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:50,974,79750,975,936 F-box + FBA1 S7-SLF2 8.00E-26 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:55,170,29855,171,874 F-	PGSC0003DMG400021156	PGSC0003DMP400036681	S14.03ch07:42,476,50042,485,182	F-box + FBA1	S7-SLF2	9.00E-33
PGSC0003DMG40003293 PGSC0003DMF400063017 ST4.03ch07:54,136,309.54,137,370 F-box + FBA3 S7-SLF3 5.00E-23 PGSC0003DMG400022273 PGSC0003DMF400063018 ST4.03ch07:55,683,647.55,609.807 F-box S7-SLF1A 2.00E-24 PGSC0003DMG400012267 PGSC0003DMF4000421719 ST4.03ch07:55,683,647.55,609.807 F-box S7-SLF1A 2.00E-24 PGSC0003DMG400012267 PGSC0003DMF40004838 ST4.03ch08:3,886,9023,888,342 F-box + FBA1 S7-SLF2 3.00E-25 PGSC0003DMG400012669 PGSC0003DMF400004838 ST4.03ch09:3,209,3053,210,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400003796 PGSC0003DMF400006765 ST4.03ch09:3,584,21243,586,601 F-box S7-SLF2 2.00E-22 PGSC0003DMG400003797 PGSC0003DMF400006767 ST4.03ch09:30,930,11550,932,931 F-box + FBA1 S7-SLF2 5.00E-23 PGSC0003DMG400003797 PGSC0003DMF400006767 ST4.03ch09:50,974,79750,975,936 F-box + FBA1 S7-SLF2 5.00E-23 PGSC0003DMG400003811 PGSC0003DMP400006767 ST4.03ch09:55,170,29855,171,874 F-box S7-SLF2 5.00E-23 PGSC0003DMG400003811 PGSC0003DMP40001841 ST4.03ch09:55,170,29855,171,874 F-	PGSC0003DMG400020424	PGSC0003DMP400035471	ST4.03ch07:50 126 975 50 122 620	F-DUX	37-3LF2 97-91 E5	2.00E-28 8.00E-24
PGSC0003DMG400022273 PGSC0003DMP400038588 ST4.03ch07:55,683,647.55,690,807 F-box S7-SLF1A 2.00E-24 PGSC0003DMG400012267 PGSC0003DMP400032228 ST4.03ch08:3,886,9023,888,342 F-box F-box S7-SLF1A 2.00E-24 PGSC0003DMG400012267 PGSC0003DMP400021719 ST4.03ch08:3,886,9023,888,342 F-box S7-SLF1A 2.00E-24 PGSC0003DMG40001267 PGSC0003DMP40004838 ST4.03ch09:3,209,3053,210,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400003796 PGSC0003DMP400008767 ST4.03ch09:3,3584,21243,586,601 F-box S7-SLF2 2.00E-24 PGSC0003DMG400003797 PGSC0003DMP400006766 ST4.03ch09:50,930,11550,932,391 F-box S7-SLF2 2.00E-23 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:50,943,971.50,946,723 F-box S7-SLF2 5.00E-26 PGSC0003DMG400003797 PGSC0003DMP400006820 ST4.03ch09:51,79,79.50,975,936 F-box S7-SLF2 5.00E-23 PGSC0003DMG400003831 PGSC0003DMP40001841 ST4.03ch09:55,170,29855,171,874 F-box S7-SLF2 5.00E-23 PGSC0003DMG400029654 PGSC0003DMP40001841 ST4.03ch09:55,170,29855,171,874 F-box	PGSC0003DMG402020443	PGSC0003DMP400066097	ST4.03ch07:54 136 309 54 137 370	F-box + FBA3	57-5LF3	5.00E-24
PGSC0003DMG400012267 PGSC0003DMP400022228 ST4.03ch08:3,886,902.3,888,342 F-box FBA1 S7-SLF16 5.00E-28 PGSC0003DMG400012267 PGSC0003DMP400021719 ST4.03ch08:3,886,902.3,888,342 F-box S7-SLF16 5.00E-28 PGSC0003DMG400012267 PGSC0003DMP40000874 ST4.03ch08:3,886,902.3,888,321,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400017667 PGSC0003DMP40000874 ST4.03ch09:3,209,305.3,210,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400037967 PGSC0003DMP400008767 ST4.03ch09:3,584,212.43,586,601 F-box S7-SLF2 7.00E-22 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:50,930,115.50,932,391 F-box + FBA1 S7-SLF2 5.00E-26 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:50,943,971.50,975,936 F-box + FBA1 S7-SLF2 5.00E-26 PGSC0003DMG400003831 PGSC0003DMP400016820 ST4.03ch09:55,170,298.55,171,874 F-box S7-SLF3 5.00E-23 PGSC0003DMG400029654 PGSC0003DMP400016841 ST4.03ch09:55,170,298.55,171,874 F-box S7-SLF2 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP400051661 ST4.03ch09:58,51,594.56,58,582,764 F	PGSC0003DMG400022273	PGSC0003DMP400038588	ST4.03ch07:55 683 647 55 690 807	F-box	S7-SLF1A	2 00E-24
PGSC0003DMG400012267 PGSC0003DMP400021719 ST4.03ch08:56,165,635.56,166,828 F-box S7-SLF5 3.00E-25 PGSC0003DMG40002699 PGSC0003DMP400004838 ST4.03ch09:3,209,305.3,210,537 F-box S7-SLF6 2.00E-22 PGSC0003DMG40007667 PGSC0003DMP400006766 ST4.03ch09:3,584,212.43,586,601 F-box S7-SLF6 2.00E-22 PGSC0003DMG400003797 PGSC0003DMP400006766 ST4.03ch09:50,930,115.50,932,931 F-box + FBA1 S7-SLF2 5.00E-26 PGSC0003DMG400003797 PGSC0003DMP400006766 ST4.03ch09:50,943,971.50,975,936 F-box + FBA1 S7-SLF2 5.00E-26 PGSC0003DMG400003871 PGSC0003DMP400016820 ST4.03ch09:55,170,298.55,171,874 F-box S7-SLF2 8.00E-26 PGSC0003DMG400029654 PGSC0003DMP400010841 ST4.03ch09:55,170,298.55,171,874 F-box S7-SLF5 1.00E-20 PGSC0003DMG400029654 PGSC0003DMP400051661 ST4.03ch09:58,511,594.58,513,725 F-box S7-SLF5 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP40051661 ST4.03ch09:58,511,594.58,582,764 F-box S7-SLF5 9.00E-26 PGSC0003DMG400029655 PGSC00	PGSC0003DMG400018496	PGSC0003DMP400032228	ST4.03ch08:3.886.9023.888.342	F-box + FBA1	S7-SLF16	5.00E-28
PGSC0003DMG40002699 PGSC0003DMP400004838 ST4.03ch09:3,209,3053,210,537 F-box S7-SLF2 4.00E-23 PGSC0003DMG400017667 PGSC0003DMP4000030874 ST4.03ch09:3,509,30,11550,932,391 F-box S7-SLF2 7.00E-23 PGSC0003DMG400003796 PGSC0003DMP400006766 ST4.03ch09:50,930,11550,932,391 F-box + FBA1 S7-SLF2 5.00E-26 PGSC0003DMG400003879 PGSC0003DMP40006820 ST4.03ch09:50,943,97150,946,723 F-box + FBA1 S7-SLF2 8.00E-26 PGSC0003DMG400003871 PGSC0003DMP40006820 ST4.03ch09:50,974,79750,975,936 F-box + FBA1 S7-SLF2 8.00E-26 PGSC0003DMG400006107 PGSC0003DMP400010881 ST4.03ch09:55,170,29855,171,874 F-box S7-SLF3 5.00E-23 PGSC0003DMG400029654 PGSC0003DMP40001661 ST4.03ch09:58,511,59458,513,725 F-box + FBA1 S7-SLF5 1.00E-20 PGSC0003DMG400029655 PGSC0003DMP400051618 ST4.03ch09:58,551,545,563,573,019 F-box S7-SLF5 9.00E-26 PGSC0003DMG400029655 PGSC0003DMP400051618 ST4.03ch09:58,581,55658,582,764 F-box S7-SLF5 9.00E-26 PGSC0003DMG4000296	PGSC0003DMG400012267	PGSC0003DMP400021719	ST4.03ch08:56,165,63556,166,828	F-box	S7-SLF5	3.00E-25
PGSC0003DMG400017667 PGSC0003DMP400030874 ST4.03ch09:43,584,212.43,586,601 F-box S7-SLF6 2.00E-22 PGSC0003DMG400003796 PGSC0003DMP400006766 ST4.03ch09:50,930,11550,932,391 F-box + FBA1 S7-SLF2 7.00E-23 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:50,943,97150,975,936 F-box + FBA1 S7-SLF2 8.00E-26 PGSC0003DMG400003811 PGSC0003DMP400006820 ST4.03ch09:50,974,79750,975,936 F-box + FBA1 S7-SLF2 8.00E-26 PGSC0003DMG400003811 PGSC0003DMP400011435 ST4.03ch09:55,170,298.55,171,874 F-box S7-SLF3 5.00E-23 PGSC0003DMG400029654 PGSC0003DMP400010841 ST4.03ch09:55,170,298.55,171,874 F-box S7-SLF5 1.00E-20 PGSC0003DMG400029654 PGSC0003DMP400051618 ST4.03ch09:58,511,59458,513,725 F-box S7-SLF5 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP40005162 ST4.03ch09:58,513,55658,582,764 F-box S7-SLF5 9.00E-26 PGSC0003DMG400031300 PGSC0003DMP400054523 ST4.03ch09:58,81,43758,851,766 F-box S7-SLF2 4.00E-27 PGSC0003DMG400031300	PGSC0003DMG400002699	PGSC0003DMP400004838	ST4.03ch09:3,209,3053,210,537	F-box	S7-SLF2	4.00E-23
PGSC0003DMG400003796 PGSC0003DMP400006766 ST4.03ch09:50,930,11550,932,391 F-box + FBA1 S7-SLF2 7.00E-23 PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:50,930,911550,932,391 F-box + FBA1 S7-SLF2 5.00E-26 PGSC0003DMG40000381 PGSC0003DMP400006820 ST4.03ch09:50,974,797.50,975,936 F-box + FBA1 S7-SLF2 8.00E-26 PGSC0003DMG400006107 PGSC0003DMP400011435 ST4.03ch09:54,462,90454,469,210 F-box S7-SLF3 5.00E-23 PGSC0003DMG400006107 PGSC0003DMP400010841 ST4.03ch09:55,170,29855,171,874 F-box S7-SLF5 1.00E-20 PGSC0003DMG400029654 PGSC0003DMP400051618 ST4.03ch09:58,511,59458,513,725 F-box S7-SLF2 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP400051618 ST4.03ch09:58,511,55458,582,764 F-box S7-SLF2 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP400051622 ST4.03ch09:58,515,55658,582,764 F-box S7-SLF2 4.00E-27 PGSC0003DMG400031300 PGSC0003DMP400054523 ST4.03ch09:58,81,43758,854,176 F-box S7-SLF2 4.00E-27 PGSC0003DMP400031292 <td>PGSC0003DMG400017667</td> <td>PGSC0003DMP400030874</td> <td>ST4.03ch09:43,584,21243,586,601</td> <td>F-box</td> <td>S7-SLF6</td> <td>2.00E-22</td>	PGSC0003DMG400017667	PGSC0003DMP400030874	ST4.03ch09:43,584,21243,586,601	F-box	S7-SLF6	2.00E-22
PGSC0003DMG400003797 PGSC0003DMP400006767 ST4.03ch09:50,943,97150,946,723 F-box S7-SLF2 5.00E-26 PGSC0003DMG400003831 PGSC0003DMP400006820 ST4.03ch09:50,974,797.50,975,936 F-box + FBA1 S7-SLF2 8.00E-26 PGSC0003DMG400003831 PGSC0003DMP400011435 ST4.03ch09:54,462,90454,469,210 F-box S7-SLF3 5.00E-23 PGSC0003DMG400026107 PGSC0003DMP400010841 ST4.03ch09:55,170,29855,171,874 F-box S7-SLF3 2.00E-23 PGSC0003DMG400029654 PGSC0003DMP40001661 ST4.03ch09:58,511,59458,513,725 F-box + FBA1 S7-SLF5 1.00E-20 PGSC0003DMG400029652 PGSC0003DMP400051661 ST4.03ch09:58,511,59458,513,725 F-box S7-SLF2 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP400051662 ST4.03ch09:58,51,55658,582,764 F-box S7-SLF2 9.00E-26 PGSC0003DMG400031300 PGSC0003DMP400054523 ST4.03ch09:58,81,543758,850,966 F-box S7-SLF2 4.00E-27 PGSC0003DMG400031292 PGSC0003DMP400054521 ST4.03ch09:58,81,43758,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673	PGSC0003DMG400003796	PGSC0003DMP400006766	ST4.03ch09:50,930,11550,932,391	F-box + FBA1	S7-SLF2	7.00E-23
PGSC0003DMG400003831 PGSC0003DMP400006820 ST4.03ch09:50,974,797.50,975,936 F-box + FBA1 S7-SLF2 8.00E-26 PGSC0003DMG401006445 PGSC0003DMP400011435 ST4.03ch09:54,462,904.54,469,210 F-box S7-SLF3 5.00E-23 PGSC0003DMG400026107 PGSC0003DMP400010841 ST4.03ch09:55,170,298.55,171,874 F-box S7-SLF3 2.00E-23 PGSC0003DMG40002654 PGSC0003DMP400051661 ST4.03ch09:58,511,594.585,513,725 F-box + FBA1 S7-SLF5 1.00E-20 PGSC0003DMG400029654 PGSC0003DMP400051661 ST4.03ch09:58,511,554.585,827,704 F-box S7-SLF2 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP4000516162 ST4.03ch09:58,51,556.585,852,764 F-box S7-SLF2 9.00E-26 PGSC0003DMG400031300 PGSC0003DMP400054523 ST4.03ch09:58,81,556.58,850,966 F-box S7-SLF2 4.00E-27 PGSC0003DMG400031292 PGSC0003DMP400054521 ST4.03ch09:58,81,437.58,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch09:4,120,4524,121,979 F-box + FBA1 S7-SLF5 1.00E-30 PGSC0003DMG400021673	PGSC0003DMG400003797	PGSC0003DMP400006767	ST4.03ch09:50,943,97150,946,723	F-box	S7-SLF2	5.00E-26
PGSC0003DMG401006445 PGSC0003DMP400011435 ST4.03ch09:54,462,904.54,469,210 F-box S7-SLF3 5.00E-23 PGSC0003DMG400006107 PGSC0003DMP400010841 ST4.03ch09:55,170,298.55,171,874 F-box S7-SLF9 2.00E-23 PGSC0003DMG400029654 PGSC0003DMP400010841 ST4.03ch09:55,51,702,98.55,171,874 F-box S7-SLF9 2.00E-23 PGSC0003DMG400029654 PGSC0003DMP400051661 ST4.03ch09:58,511,594.58,513,725 F-box F-box S7-SLF2 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP4000516162 ST4.03ch09:58,571,145.58,573,019 F-box S7-SLF2 9.00E-26 PGSC0003DMG400029655 PGSC0003DMP400051622 ST4.03ch09:58,849,836.58,850,966 F-box S7-SLF2 4.00E-27 PGSC0003DMG400031300 PGSC0003DMP400054521 ST4.03ch09:58,851,437.58,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch09:58,851,437.58,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch09:4,120,4524,121,979 F-box + FBA1 S7-SLF5 1.00E-30 PGSC0003DMP40003758	PGSC0003DMG400003831	PGSC0003DMP400006820	ST4.03ch09:50,974,79750,975,936	F-box + FBA1	S7-SLF2	8.00E-26
PGSC0003DMG400026107 PGSC0003DMP400010841 ST4.03ch09:55,170,29855,171,874 F-box S7-SLF9 2.00E-23 PGSC0003DMG400029654 PGSC0003DMP400051661 ST4.03ch09:55,517,029855,171,874 F-box FBA1 S7-SLF5 1.00E-20 PGSC0003DMG400029652 PGSC0003DMP400051661 ST4.03ch09:58,571,14558,573,019 F-box FBA1 S7-SLF2 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP400051662 ST4.03ch09:58,571,15558,582,764 F-box S7-SLF5 9.00E-26 PGSC0003DMG400031300 PGSC0003DMP400054533 ST4.03ch09:58,851,43758,850,966 F-box S7-SLF2 4.00E-27 PGSC0003DMG400031292 PGSC0003DMP400054521 ST4.03ch09:58,851,43758,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch09:4,120,4524,121,979 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch09:4,120,4524,121,979 F-box S7-SLF5 1.00E-30 PGSC0003DMP400037580 ST4.03ch09:4,120,4524,121,979 F-box + FBA1 S7-SLF5 1.00E-30 PGSC0003DMP400037580 <	PGSC0003DMG401006445	PGSC0003DMP400011435	ST4.03ch09:54,462,90454,469,210	F-box	S7-SLF3	5.00E-23
PGSC0003DMG400029654 PGSC0003DMF400051661 S14.03ch09:58,511,59458,513,725 F-box + FBA1 S7-SLF5 1.00E-20 PGSC0003DMG400029652 PGSC0003DMF400051661 ST4.03ch09:58,571,14558,573,019 F-box S7-SLF5 1.00E-26 PGSC0003DMG400029655 PGSC0003DMP400051662 ST4.03ch09:58,581,55658,582,764 F-box S7-SLF5 9.00E-26 PGSC0003DMG400031300 PGSC0003DMP400054523 ST4.03ch09:58,849,836588,550,966 F-box S7-SLF2 4.00E-27 PGSC0003DMG400031292 PGSC0003DMP400054521 ST4.03ch09:58,851,43758,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch09:4,120,4524,121,979 F-box + FBA1 S7-SLF5 1.00E-30 PGSC0003DMP400037580 ST4.03ch09:4,120,4524,121,979 F-box + FBA1 S7-SLF5 1.00E-30	PGSC0003DMG400006107	PGSC0003DMP400010841	ST4.03ch09:55,170,29855,171,874	F-box	S7-SLF9	2.00E-23
PGSC0003DMG400029652 PGSC0003DMP40005166 S14.03ch09:58,581,556.58,562,764 F-box S7-SLF2 1.00E-26 PGSC0003DMG400031300 PGSC0003DMP400051662 ST4.03ch09:58,581,556.58,582,764 F-box S7-SLF5 9.00E-26 PGSC0003DMG400031292 PGSC0003DMP400054533 ST4.03ch09:58,851,437.58,850,966 F-box S7-SLF5 4.00E-27 PGSC0003DMG400021673 PGSC0003DMP400054521 ST4.03ch09:58,851,437.58,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch09:58,851,437.58,854,176 F-box S7-SLF5 1.00E-30 PGSC0003DMP400037580 ST4.03ch102.4120,452.4,121,979 F-box + FBA1 S7-SLF5 1.00E-30	PGSC0003DMG400029654	PGSC0003DMP400051661	S14.03ch09:58,511,59458,513,725	F-DOX + FBA1	57-5LF5	1.00E-20
PGSC0003DMG400029033 PGSC0003DMF40003602 ST4.03ch09:58,849,83658,850,966 F-box S7-SLF3 9.00E-20 PGSC0003DMG400031300 PGSC0003DMP400054533 ST4.03ch09:58,849,83658,850,966 F-box S7-SLF2 4.00E-27 PGSC0003DMG400031292 PGSC0003DMP400054521 ST4.03ch09:58,851,43758,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch10:4,120,4524,121,979 F-box + FBA1 S7-SLF5 1.00E-30 PGSC0003DMG400021673 PGSC0003DMP400037580 Object 0.4 dog 157.120,4524, 121,979 F-box + FBA1 S7-SLF5 1.00E-30	PGSC0003DMG400029632	PGSC0003DMP400051618	S14.03ch09:58,571,14558,573,019	F-DOX	57-5LF2	1.00E-26
PGSC0003DMG400031292 PGSC0003DMP4000354521 ST4.03ch09:58,851,437.58,854,176 F-box S7-SLF5 7.00E-23 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch10:4,120,452.4,121,979 F-box S7-SLF5 1.00E-30 PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch10:4,120,452.4,121,979 F-box S7-SLF5 1.00E-30	PGSC0003DMG400023033	PGSC0003DMP400054533	ST4.03ch09:58.849.836.58.850.966	F-box	S7-SLF2	9.00L-20 4.00E-27
PGSC0003DMG400021673 PGSC0003DMP400037580 ST4.03ch10:4,120,4524,121,979 F-box + FBA1 S7-SLF5 1.00E-30	PGSC0003DMG400031292	PGSC0003DMP400054521	ST4 03ch09:58 851 437 58 854 176	F-box	S7-SI E5	7.00E-23
	PGSC0003DMG400021673	PGSC0003DMP400037580	ST4.03ch10:4.120.4524.121.979	F-box + FBA1	S7-SLF5	1.00E-30
PGSC0003DMG400021672 PGSC0003DMF400037379 S14.03C010:4,123,1544,124,335 F-box S7-SLF5 7.00E-28	PGSC0003DMG400021672	PGSC0003DMP400037579	ST4.03ch10:4,123,1544,124,335	F-box	S7-SLF5	7.00E-28
PGSC0003DMG400031233 PGSC0003DMP400054430 ST4.03ch10:48,844,750.48,845,709 F-box + FBA3 S7-SLF13 7.00E-24	PGSC0003DMG400031233	PGSC0003DMP400054430	ST4.03ch10:48,844,75048,845,709	F-box + FBA3	S7-SLF13	7.00E-24
PGSC0003DMG400028237 PGSC0003DMP400049085 ST4.03ch10:56,055,61156,057,397 F-box + FBA1 S7-SLF9 7.00E-23	PGSC0003DMG400028237	PGSC0003DMP400049085	ST4.03ch10:56,055,61156,057,397	F-box + FBA1	S7-SLF9	7.00E-23
PGSC0003DMG400046761 PGSC0003DMP400068865 ST4.03ch12:995,124996,059 F-box + FBA1 S7-SLF2 1.00E-23	PGSC0003DMG400046761	PGSC0003DMP400068865	ST4.03ch12:995,124996,059	F-box + FBA1	S7-SLF2	1.00E-23
PGSC0003DMG400004294 PGSC0003DMP400007644 ST4.03ch12:6,242,6436,244,440 F-box + FBA1 S7-SLF3 2.00E-21	PGSC0003DMG400004294	PGSC0003DMP400007644	ST4.03ch12:6,242,6436,244,440	F-box + FBA1	S7-SLF3	2.00E-21
PGSC0003DMG400045722 PGSC0003DMP400067826 ST4.03ch12:20,809,067.20,810,263 F-box S7-SLF3 5.00E-22	PGSC0003DMG400045722	PGSC0003DMP400067826	ST4.03ch12:20,809,06720,810,263	F-box	S7-SLF3	5.00E-22
PGSC0003DMG400040830 PGSC0003DMP400062934 ST4.03ch12:27,411,66827,412,774 F-box S7-SLF5 3.00E-21	PGSC0003DMG400040830	PGSC0003DMP400062934	ST4.03ch12:27,411,66827,412,774	F-box	S7-SLF5	3.00E-21
PGSC0003DMG400034923 PGSC0003DMH400057027 ST4.03ch12:53,231,209.53,232,237 F-box S7-SLF13 6.00E-22	PGSC0003DMG400034923	PGSC0003DMP400057027	ST4.03ch12:53,231,20953,232,237	F-box	S7-SLF13	6.00E-22
1 000000000000000000000000000000000000	1 4300003DiviG400004709	1 430000301/11/400008352	514.030112.00,211,09200,212,744	I -DUX + FDAT	31-3LF3	0.00E-27

(d) S-RNase-related ribonuclease genes from potato

Gene_ID	Peptide_ID	Location	Motif	Query	E value
PGSC0003DMG400026738	PGSC0003DMP400046458	ST4.03ch00:3,948,5303,949,620	signal + RNase T2	S7-RNase	1.00E-46
PGSC0003DMG400031503	PGSC0003DMP400054831	ST4.03ch00:35,480,46335,481,718	RNase T2	S7-RNase	8.00E-11
PGSC0003DMG400002857	PGSC0003DMP400005163	ST4.03ch04:262,942265,137	RNase T2	S7-RNase	1.00E-17
PGSC0003DMG400019997	PGSC0003DMP400034699	ST4.03ch05:2,484,8732,485,866	signal + RNase T2	S7-RNase	8.00E-12

Gray shading highlights S-genes that belong to Solanaceae SLFs or S-RNases clades (see Fig. 3).

Supplementary table	7 Sequence information o	f SLF-related F-box genes	, extracted from published data
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Gene	Accession ID	Source	References	Note
Solanaceae SLFs				
PiS1-SLF1	AY500390	Petunia inflata	ref. 22	synonymous with PiSLF1
PiS1-SLF2	EF614191	Petunia inflata	ref. 56	synonymous with PiSLFLc-S1
PiS1-SLF7	EF614190	Petunia inflata	ref. 56	synonymous with PiSLFLa-S1
PiS1-SLF9	AY363970	Petunia inflata	ref. 37	synonymous with S1-A113
PiS1-SLF10	AY363973	Petunia inflata	ref. 37	synonymous with S1-A134
PiS2-SLF1	AY500391	Petunia inflata	ref. 22	synonymous with PiSLF2
PiS2-SLF3	EF614187	Petunia inflata	ref. 56	synonymous with PiSLFLd-S2
PiS2-SLF4	KF524351	Petunia inflata	ref. 23	
PiS2-SLF5	KF524352	Petunia inflata	ref. 23	
PiS2-SLF6	KF524353	Petunia inflata	ref. 23	
PiS2-SLF7	EF614189	Petunia inflata	ref. 56	synonymous with PiSLFLa-S2
PiS2-SLF8	EF614188	Petunia inflata	ref. 56	synonymous with PiSLFLb-S2
PiS2-SLF9	AY363971	Petunia inflata	ref. 37	synonymous with S2-A113
PiS2-SLF10	AY363974	Petunia inflata	ref. 37	synonymous with S2-A134
PiS3-SLF1	AY500392	Petunia inflata	ref. 22	synonymous with PiSLF3
PiS3-SLF5	KF524354	Petunia inflata	ref. 23	
PiS3-SLF6	KF524355	Petunia inflata	ref. 23	
PiS3-SLF9	AY363972	Petunia inflata	ref. 37	synonymous with S3-A113
PiS3-SLF10	AY363975	Petunia inflata	ref. 37	synonymous with S3-A134
PiS5-SLF1	KC590092	Petunia inflata	ref. 65	
PiS7-SLF1	KC590093	Petunia inflata	ref. 65	
PiS11-SLF1	KC590094	Petunia inflata	ref. 65	
PiS13-SLF1	KC590095	Petunia inflata	ref. 65	
NaDD1-S1	EF420251	Nicotiana alata	ref. 66	
NaDD2-S1	EF420252	Nicotiana alata	ref. 66	
NaDD3-S1	EF420253	Nicotiana alata	ref. 66	
NaDD4-S2	FF420254	Nicotiana alata	ref 66	
NaDD5-S2	EF420255	Nicotiana alata	ref 66	
NaDD6-S2	EF420256	Nicotiana alata	ref 66	
NaDD7-S2	EF420257	Nicotiana alata	ref 66	
NaDD8-S2	EF420258	Nicotiana alata	ref 66	
NaDD9-S2	EF420259	Nicotiana alata	ref 66	
NaDD10-S6	EF420260	Nicotiana alata	ref 66	
		nicolana ulata		
Antirrhinum SLFs				
AhSLF-S2	AJ297974	Antirrhinum hispanicum	ref. 67	
AhSLF-S2L	AJ297975	Antirrhinum hispanicum	ref. 67	
AhSLF-S1	AJ515535	Antirrhinum hispanicum	ref. 68	
AhSLF-S4	AJ515534	Antirrhinum hispanicum	ref. 68	
AhSLF-S5	AJ515536	Antirrhinum hispanicum	ref. 68	
AhSLF-S1E	AJ515535	Antirrhinum hispanicum	ref. 68	
AhSLF-S2C	DQ462204	Antirrhinum hispanicum	ref. 68	
AhSLF-S4A	AJ515534	Antirrhinum hispanicum	ref. 68	
AhSLF-S4D	AJ515534	Antirrhinum hispanicum	ref. 68	
AhSLF-S5A	AJ515536	Antirrhinum hispanicum	ref. 68	
Maloideae SLFs/SF	BBs			
MdFBX1-S3	AB539844	Malus x domestica	ref. 69	
MdFBX2-S3	AB539845	Malus x domestica	ref. 69	
MdFBX3-S3	AB539846	Malus x domestica	ref. 69	
MdFBX5-S3	AB539848	Malus x domestica	ref. 69	
MdFBX7-S3	AB539850	Malus x domestica	ref. 69	
MdFBX8-S3	AB539851	Malus x domestica	ref. 69	
MdFBX9-S3	AB539852	Malus x domestica	ref. 69	
MdFBX11-S3	AB539854	Malus x domestica	ref. 69	

MdFBX14-S3	AB539857	Malus x domestica	ref. 69	
MdFBX18-S3	AB539861	Malus x domestica	ref. 69	
MdFBX20-S3	AB539863	Malus x domestica	ref. 69	
MdSFBB3-alpha	AB270795	Malus x domestica	ref. 70	
MdSFBB3-beta	AB270796	Malus x domestica	ref. 70	
PpS4FBX0	AB308360	Pyrus pyrifolia	ref. 71	synonymous with PpSFBB1-S4 and PpSFBB4-d1
PpSFBB2-S4	AB270798	Pvrus pvrifolia	ref. 70	synonymous with PpSFBB4-6
PpSFBB3-S2	AB545982	Pvrus pvrifolia	ref. 72	synonymous with PpSFBB2-u5
PpSFBB4-S4	AB621610	Pvrus pvrifolia	ref. 73	- , - ,
PpSFBB5-S4	AB545981	Pvrus pvrifolia	ref. 72	synonymous with PpSFBB4-u2
PpSFBB6-S4	AB270797	Pvrus pvrifolia	ref. 70	synonymous with PpSFBB4-α
, PpSFBB7-S4	AB545981	Pvrus pvrifolia	ref. 72	synonymous with PpSFBB4-u3
PpSFBB8-S4	AB270799	Pyrus pyrifolia	ref. 70	synonymous with PpSFBB4-y
, PpSFBB4-u1	AB545981	Pvrus pvrifolia	ref. 72	
PpSFBB4-u4	AB545981	Pvrus pvrifolia	ref. 72	
PpSFBB4-d2	AB545981	Pyrus pyrifolia	ref. 72	
		, , ,		
Prunus SLFLs				
PmS7-SLFL1	AB092624	Prunus mume	ref. 74	
PmS7-SLFL2	AB092626	Prunus mume	ref. 74	
PmS7-SLFL3	AB092627	Prunus mume	ref. 74	
PaviSLFL1-S4	AB280953	Prunus avium	ref. 75	
PaviSLFL2-S4	AB280954	Prunus avium	ref. 75	
PaviSLFL3-S4	AB280955	Prunus avium	ref. 75	
Prunus SLF/SFB/n	onS-FBs			
ParmSFB24	HQ615603	Prunus armeniaca	ref. 76	
PaviSFB4	AB111521	Prunus avium	ref. 77	
PdulSFB-a	FJ362524	Prunus dulcis	Guo, C., Li,	, J., Luo, S. & He, T. Direct Submission
PmS7-SLF	AB092622	Prunus mume	ref. 74	
PsalSFB-c	DQ849084	Prunus salicina	ref. 78	
PaviFB	JQ322648	Prunus avium	ref. 79	
PmFbox1	JX141276	Prunus mume	ref. 80	
PmFbox2	JX141277	Prunus mume	ref. 80	
(Outgroop)				
	DO250010	Potunia hybrida	ref 60	
DIERD2/11	DQ250013	Potunia hybrida	rof 60	
FIF DF 2411	DQ200020	r eturna nybrida		

Supplementary	v table 8 Sequence	information of	S-RNase-related	RNase-T2	aenes used in	phylog	aenetic analy	/sis

Gene	Accession ID	Source	References	Note
Class-III: Solanace	ae S-RNases			
PaS1-RNase	AF239908	Petunia axillaris	ref. 81	
PaS13-RNase	AF239909	Petunia axillaris	ref. 81	
PaS15-RNase	AF239910	Petunia axillaris	ref. 81	
PaS17-RNase	AY180050	Petunia axillaris	ref. 52	
PaS19-RNase	AY766156	Petunia axillaris	ref. 52	
PaSc1-RNase	AY180048	Petunia axillaris	ref. 52	self-compatible allele
PaSc2-RNase	AY180049	Petunia axillaris	ref. 52	self-compatible allele
Pa-nonS-RNase	AF239907	Petunia axillaris	ref. 81	non-S RNase
PhS1-RNase	U07362	Petunia hybrida	ref. 82	
PhS3-RNase	U07363	Petunia hybrida	ref. 82	
PhS5-RNase	AB016522	Petunia hybrida	ref. 51	synonymous with SB1, identical with Sv
PhS7-RNase	AB568388	Petunia hybrida	ref. 9	
PhS9-RNase	AB016523	Petunia hybrida	ref. 51	synonymous with SB2, identical with S3L
PhS10-RNase	AB933140	Petunia hybrida	This work	identical with Sx
PhS11-RNase	AB568389	Petunia hybrida	ref. 9	identical with PiS11
PhS22-RNase	AB933141	Petunia hybrida	This work	
PhS22m-RNase	AB933142	Petunia hybrida	This work	self-compatible allele
PhSm-RNase	AB933143	Petunia hybrida	This work	self-compatible allele
PhS0m-RNase	AB933144	Petunia hybrida	This work	identical with PhS0, self-compatible allele
PiS1-RNase	M67990	Petunia inflata	ref. 83	
PiS2-RNase	AF301533	Petunia inflata	ref. 84	
PiS3-RNase	M67991	Petunia inflata	ref. 83	
PiS6-RNase	AF301167	Petunia inflata	ref. 40	
PiS7-RNase	AF301168	Petunia inflata	ref. 40	
PiS8-RNase	AF301169	Petunia inflata	ref. 40	
PiS9-RNase	AF301170	Petunia inflata	ref. 40	
PiS10-RNase	AF301171	Petunia inflata	ref. 40	
PiS12-RNase	AF301173	Petunia inflata	ref. 40	
PiS13-RNase	AF301174	Petunia inflata	ref. 40	
PiS15-RNase	AF301175	Petunia inflata	ref. 40	
PiS16-RNase	AF301176	Petunia inflata	ref. 40	
PiS17-RNase	AF301177	Petunia inflata	ref. 40	
PiS19-RNase	AF301178	Petunia inflata	ref. 40	
PiS20-RNase	AF301179	Petunia inflata	ref. 40	
PiS21-RNase	AF301180	Petunia inflata	ref. 40	
PiSk-RNase	AB094600	Petunia inflata	ref. 85	
PiRNX2	M93418	Petunia inflata	ref. 86	non-S RNase
ScS11-RNase	S69589	Solanum chacoense	ref. 87	
ScS12-RNase	AF176533	Solanum chacoense	ref. 88	
ScS13-RNase	L36667	Solanum chacoense	ref. 89	
ScS14-RNase	AF232304	Solanum chacoense	ref. 90	
SchilS1-RNase	AB072469	Solanum chilense	ref. 91	
Sh_hab-1	GU361144	Solanum habrochaites	ref. 92	
Sh_hab-2	GU361145	Solanum habrochaites	ref. 92	
Sh_hab-3	GU361146	Solanum habrochaites	ref. 92	
Sh_hab-4	GU361147	Solanum habrochaites	ref. 92	
Sh_hab-5	GU361148	Solanum habrochaites	ref. 92	
Sh_hab-6	GU361149	Solanum habrochaites	ref. 92	
Sh_hgSRN1	AB072478	Solanum habrochaites	ref. 91	synonymous with LhgSRN-1
Sn_LpfSRN1	AB072475	Solanum neorickii	ref. 91	synonymous with LpfSRN-1
Spen_pen-1	GU361150	Solanum pennellii	ref. 92	
SpS6-RNase	Z26583	Solanum peruvianum	ref. 93	
SpS7-RNase	Z26582	Solanum peruvianum	ref. 93	
SpS11-RNase	U28795	Solanum peruvianum	ref. 94	
SpS12-RNase	U28796	Solanum peruvianum	ref. 94	

SpS13-RNase	D17325	Solanum peruvianum	ref. 95
SpS15-RNase	AB072457	Solanum peruvianum	ref. 91
SpS24-RNase	AB072466	Solanum peruvianum	ref. 91
SpS25-RNase	AB072467	Solanum peruvianum	ref. 91
Sp-nonS	Z26581	Solanum peruvianum	ref. 93 non-S RNase
StS2-RNase	X62727	Solanum tuberosum	ref. 96
PGSC0003DMG400	026738	Solanum tuberosum	ref. 12
Solyc01g055200		Solanum lycopersicum	ref. 13 self-compatible allele
NaS2-RNase	X03803	Nicotiana alata	ref. 97
NaS3-RNase	U66427	Nicotiana alata	ref. 98
NaS6-RNase	U08861	Nicotiana alata	ref. 99
NaS7-RNase	U13255	Nicotiana alata	ref. 100
NaSA2-RNase	U45957	Nicotiana alata	ref. 101
Na_D63887	D63887	Nicotiana alata	Norioka, S. Direct Submission
Na_D63888	D63888	Nicotiana alata	Norioka, S. Direct Submission
Ns_relicRNase	AJ002296	Nicotiana sylvestris	ref. 102
Class-III: Antirrhinu	m S-RNases		
AhS1-RNase	HE805271	Antirrhinum hispanicum	Liu, W. & Xue, Y. B. Direct Submission
AhS2-RNase	X96465	Antirrhinum hispanicum	ref. 103
AhS3-RNase	AJ315593	Antirrhinum hispanicum	Xue, Y. Direct Submission
AhS4-RNase	X96466	Antirrhinum hispanicum	ref. 103
AhS5-RNase	X96464	Antirrhinum hispanicum	ref. 103
Class-III: Maloideae	S-RNases		
MdS2-RNase	U12199	Malus x domestica	ref. 104
MdS3-RNase	U12200	Malus x domestica	ref. 104
MdS4-RNase	AF327223	Malus x domestica	Van Nerum, I., et al. Direct Submission
MdS9-RNase	U19793	Malus x domestica	ref. 104
MdS10-RNase	AF327221	Malus x domestica	Van Nerum, I., et al. Direct Submission
MdS27b-RNase	AF327222	Malus x domestica	Van Nerum, I., et al. Direct Submission
PpS1-RNase	AB002139	Pyrus pyrifolia	ref. 105
PpS3-RNase	AB002140	Pyrus pyrifolia	ref. 105
PpS4-RNase	AB009385	Pyrus pyrifolia	ref. 106
PpS5-RNase	AB002141	Pyrus pyrifolia	ref. 105
PpS6-RNase	AB002142	Pyrus pyrifolia	ref. 105
PpS7-RNase	AB002143	Pyrus pyrifolia	ref. 105
PpS8-RNase	AB104908	Pyrus pyrifolia	ref. 107
PpS9-RNase	AB104909	Pyrus pyrifolia	ref. 108
Class-III: Prunus S-	RNases		rof 100
Parms I-Rivase	AY58/561	Prunus armeniaca	
Parm524-Rivase	HQ615602	Prunus armeniaca	
Pavis I-Rinase	AJ298310	Prunus avium	
PaviS4-Rinase	AB028154	Prunus avium	ref. 111
PdulSa-RNase	AB026836	Prunus dulcis	ref. 112
PdulSb-RNase	AB011469	Prunus dulcis	ref. 113
PdulSc-RNase	AB011470	Prunus dulcis	ref. 113
PmS1-RNase	AB101438	Prunus mume	ref. 114
PmS7-RNase	AB092644	Prunus mume	ref. 74
PmS14-RNase	EU020121	Prunus mume	Zhang, S. L., et al., Direct Submission
PmS15-RNase	EU020122	Prunus mume	Zhang, S. L., et al., Direct Submission
PmS16-RNase	EU020123	Prunus mume	Zhang, S. L., et al., Direct Submission
PmSf-RNase	AB101437	Prunus mume	ref. 114
PsalSc-RNase	AB084102	Prunus salicina	ref. 115
PsalSb-RNase	AB252413	Prunus salicina	ref. 116

Class-III: S-clade non-S S-RNase-like, expressing in nectary

RNasePhy3	GQ465919	Petunia hybrida	ref. 62	expressing in nectary
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RNasePhy4	GQ465918	Petunia hybrida	ref. 62	expressing in nectary
PGSC0003DMG40	0019997	Solanum tuberosum	ref. 12	
PGSC0003DMG40	0031503	Solanum tuberosum	ref. 12	
Solyc07g006570		Solanum lycopersicum	ref. 13	
Class-I				
RNasePhy1	GQ465920	Petunia hybrida	ref. 62	
RNasePhy5	GQ465917	Petunia hybrida	ref. 62	
RNaseNE	U13256	Nicotiana alata	ref. 117	
RNaseNGR1	AB112028	Nicotiana glutinosa	ref. 118	synonymous with RNaseNW
RNaseNGR3	AB032257	Nicotiana glutinosa	ref. 119	
RNaseNK1	AB034638	Nicotiana tabacum	ref. 120	
RNaseLE	X79337	Solanum lycopersicum	ref. 121	
RNaseLX	X79338	Solanum lycopersicum	ref. 121	
Solyc04g005640		Solanum lycopersicum	ref. 13	
Solyc05g007940		Solanum lycopersicum	ref. 13	
Solyc05g007950		Solanum lycopersicum	ref. 13	
PGSC0003DMG40	0002857	Solanum tuberosum	ref. 12	
Pp_non-S	D49529	Pyrus pyrifolia	ref. 122	non- <i>S-RNase</i> gene
RNasePD1	AF227522	Prunus dulcis	ref. 123	
RNasePD2	AF202030	Prunus dulcis	ref. 124	
Class-II				
RNasePhy2	GQ507487	Petunia hybrida	ref. 125	
RNaseNGR2	AB032256	Nicotiana glutinosa	ref. 119	
Solyc06g082890		Solanum lycopersicum	ref. 13	
Solyc09g020110		Solanum lycopersicum	ref. 13	
RNaseLER	AM408589	Solanum lycopersicum	ref. 126	
AhSL28	AJ489249	Antirrhinum hispanicum	ref. 127	S-like RNase 28
(Outgroop)				
RNase T2	NM_003730	Homo sapiens	ref. 63	
RNase Rh	D12476	Rhizopus niveus	ref. 64	

Classification is made according to refs. 61 and 62.

Group		No. of genes	Ka	Ks
Petunia Type-1 SLFs		20	0.037	0.107
Petunia Type-2 SLFs		8	0.090	0.303
Petunia Type-3 SLFs		12	0.059	0.166
Petunia Type-4 SLFs		11	0.027	0.090
Petunia Type-5 SLFs		14	0.021	0.074
Petunia Type-6 SLFs		11	0.023	0.081
Petunia Type-7 SLFs		9	0.038	0.086
<i>Petunia</i> Type-8 <i>SLF</i> s		14	0.031	0.113
<i>Petunia</i> Type-9 <i>SLF</i> s		13	0.021	0.097
Petunia Type-10 SLFs		14	0.014	0.022
Petunia Type-11 SLFs		10	0.029	0.133
Petunia Type-12 SLFs		11	0.018	0.054
Petunia Type-13 SLFs		10	0.023	0.078
Petunia Type-14 SLFs		9	0.027	0.058
Petunia Type-15 SLFs		7	0.016	0.025
Petunia Type-16 SLFs		11	0.031	0.078
Petunia Type-17 SLFs		6	0.000	0.001
Petunia S-RNases		33	0.400	0.850
P. hybrida S5-haplotype	<i>SLF</i> s	17	0.349	0.752
P. hybrida S7-haplotype	<i>SLF</i> s	17	0.321	0.747
P. hybrida S9-haplotype	<i>SLF</i> s	18	0.325	0.756
P. hybrida S11-haplotype	<i>SLF</i> s	16	0.323	0.757
P. axillaris S17-haplotype	<i>SLF</i> s	18	0.334	0.762
P. axillaris S19-haplotype	<i>SLF</i> s	20	0.323	0.753
Solanum S-RNases		26	0.410	0.785
S. tuberosum	<i>SLF</i> s	14	0.405	0.950
S. lycopersicum	<i>SLF</i> s	13	0.480	1.019

Supplementary Table 9 Summary of substitution rates among *SLF*s and *S-RNase*s

Dataset	4N _e r	$\operatorname{corr}(r^2, d)$	P corr(r^2 , d)
All <i>SLF</i> s	49.721	-0.009	0.016
Type-3 <i>SLF</i> s	7.525	-0.023	0.047
Type-9 <i>SLF</i> s	2.975	-0.118	0.000
Type-9+10 <i>SLF</i> s + <i>FBX</i> s ^a	6.397	-0.094	0.000
Type-14+16+17 <i>SLF</i> s	8.776	-0.017	0.030

Supplementary Table 10 Results of the recombination analysis using LDhat

Recombination tests were carried out using the LDhat program¹⁹. Datasets analyzed were sequence alignments involving each type or some related types of *SLF*s. $4N_er$, population recombination rate; corr(r^2 , d), correlations between r^2 and physical distance; $Pcorr(r^2, d)$, simulated p values based on 1,000 permutations. Only statistically significant results (p< 0.05) are shown. ^a "*FBX*s" in this table indicates type 9– and type 10–related, ungrouped *FBX*s: S_{19} -*FBX1*, S_{19} -*FBX2*, S_{0m} -*FBX1*, and S_{0m} -*FBX2*.

ataset		Allele involved	SimP	Begin	End	Length
nly SI	all <i>SLF</i> s	S7-SLF2; S19-SLF2	0.0084	482	598	117
	Type-1 SLFs	n.d.				
	Type-2 SLFs	n.d.				
	Type-3 SLFs	PiS2-SLF3; S17-SLF3	0.0022	657	1233	577
		S10-SLF3; S22-SLF3	0.0315	732	1303	572
	Type-3+11+13 SLFs	PiS2-SLF3; S17-SLF3	0.0186	657	1233	577
	Type-4 SLFs	n.d.				
	Type-4+12 SLFs	n.d.				
	Type-5 <i>SLF</i> s	n.d.				
	Type-6 SLFs	n.d.				
	Type-8 SLFs	n.d.				
	Type-9+10 SLFs	PiS1-SLF10; S10-SLF10	0.0276	145	777	633
		PiS1-SLF10; S22-SLF10	0.0276	145	777	633
	Type-11 SLFs	n.d.				
	Type-11+13 SLFs	n.d.				
	Type-12 SLFs	n.d.				
	Type-13 SLFs	n.d.				
	Type-14+16+17 SLFs	n.d.				
SC	all SLFs	S7-SLF2: S19-SLF2	0.0462	482	598	117
	Type-1 SLFs	S10-SLF1; Sm-SLF1	0.0120	1	659	659
	Type-2 SLFs	n.d.				
	Type-3 SLFs	S0m-SLF3; S9-SLF3	0.0066	507	831	325
		PiS2-SLF3: S17-SLF3	0.0037	601	1137	537
	Type-3+13 SLFs	S0m-SLF3:S9-SLF3	0.0263	510	834	325
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	PiS2-SLF3:S17-SLF3	0.0143	604	1140	537
		S22-SLF13:Sm-SLF13	0.0035	1	535	535
		S19-SI F13:Sm-SI F13	0.0231	149	535	387
	Type-4 SI Es	n d	0.0201	1.10	000	
	Type-5 SI Es	nd				
	Type-6 SLFs	n d				
	Type-7 SI Es	S17-SI F7/0: S19-SI F7/0	0 0243	493	651	159
	Type-8 SI Es	S0m-SI F8: S5-SI F8	0 0340	205	461	257
	Type-9 SLFs	PiS3-SI F9: Sm-SI F9B	0.0057	484	759	276
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	S22-SI F9: Sm-SI F9A	0.0057	988	1188	201
	Type-10 SI Fs	n d	0.0007	500	1100	201
	Type-9+10 SI Fs + FBXs a	SOm-EBX1: SOm-EBX2	0.0046	62	152	01
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	S0m-EBX1: S19-EBX2	0.0040	79	147	69
		SUN-F DAT, STO-F DAZ	0.0379	160	147	09
		SI9-FBAI, SI9-FBAZ	0.0120	670	233	100
		SIII-SLF9B; PIS3-SLF10	0.0215	670	792	123
		Sm-SLF9B; S5-SLF10	0.0340	670	792	123
		ST7-SLF9A; PIS3-SLF10	0.0340	693	811	119
		S17-SLF9B; S0m-FBX1	0.0439	37	1/1	135
		S17-SLF9B; S0m-FBX2	0.0157	62	152	91
		Sm-SLF9A; S19-FBX2	0.0247	319	404	86
		PiS3-SLF9; S19-FBX2	0.0262	319	411	93
		S11-SLF9; S19-FBX2	0.0380	322	411	90
	Type-11 SLFs	S11-SLF11; S19-SLF11	0.0450	246	374	129
		S17-SLF11; S19-SLF11	0.0004	247	401	155
	Type-12 SLFs	n.d.				
	Type-13 <i>SLF</i> s	S22-SLF13; Sm-SLF13	0.0001	1	532	532
		S5-SLF13; Sm-SLF13	0.0029	1	287	287
		S5-SLF13; S22-SLF13	0.0119	1	287	287
		S19-SLF13; Sm-SLF13	0.0154	149	532	384
		S0m-SLF13; S7-SLF13	0.0317	952	1085	134
	Type-14 SLFs	n.d.				
	Type-14+16+17 SLFs	n.d.				
	Type-15 SLFs	n.d.				
	Type-16 SLFs	n.d.				
	Type-17 SI Fs	nd				

Supplementary Table 11 Summary of the pairwise detection of the gene conversion in SLF genes using GENECONV

Gene conversion events were detected by the GENECONV program²⁰. Datasets analyzed were sequence alignments involving each type or some related types of SLFs. Sim*P*, simulated *p* values based on 1,000 permutations. Only statistically significant results (p < 0.05) are shown. Begin, first nucleotide of converted region; End, last nucleotide in converted region; Length, length of converted region. ^a "*FBXs*" in this table indicates type 9– and type 10–related, ungrouped *FBXs*: S_{19} -*FBX1*, S_{19} -*FBX2*, S_{0m} -*FBX1* and S_{0m} -*FBX2*. "n.d." indicates that no significant results was detected.

Supplementary Table 12	2 Summary of the interactions between	S-RNase and SLF experimentally	demonstrated in Petunia
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	SLFs	S-RNase alleles positively interacted	Number	S-RNase alleles negatively interacted	Number	Number of tested interaction	Proportion
Type 1	S5-SLF1 ^a	S9, S17	2	S5, S7, S11, S19	4	6	0.3333
	S7-SLF1 ^a	S9, S17, (S22) ^{b, d}	2	S5, S7, S11, S19	4	6	0.3333
	S9-SLF1 ^a	S17	1	S5, S7, S9, S11, S19	5	6	0.1667
	S11-SLF1 ^a	S17	1	S5, S7, S9, S11, S19	5	6	0.1667
	PiS2-SLF1 ^C	<i>Pi</i> S1, <i>Pi</i> S3, <i>Pi</i> S7, <i>Pi</i> S13	4	<i>Pi</i> S2, <i>Pi</i> S5, <i>Pi</i> S11	3	7	0.5714
	PiS3-SLF1 ^c	-	0	<i>Pi</i> S2, <i>Pi</i> S3	2	2	0.0000
Type 2	S5-SLF2 ^a	S9, S11	2	S5, S7, S17, S19	4	6	0.3333
	S7-SLF2 ^a	S9, S11, S19	3	S5, S7, S17	3	6	0.5000
	S11-SLF2 ^a	S9	1	S5, S7, S11, S17, S19	5	6	0.1667
Туре 3	S5-SLF3 ^b	S7	1	S5, S9, S11, S17, S19	5	6	0.1667
	S7-SLF3 ^b	-	0	S5, S7, S9, S11, S17, S19	6	6	0.0000
	S11-SLF3 ^a	S7	1	S5, S9, S11, S17, S19	5	6	0.1667
	S11-SLF3B ^b	-	0	S5, S7, S9, S11, S17, S19	6	6	0.0000
Type 4	<i>Pi</i> S2-SLF4 ^C	PiS5	1	PiS2, PiS3, PiS6a, PiS7, PiS11, PiS12, PiS13	7	8	0.1250
Type 5	PiS2-SLF5 ^C	<i>Pi</i> S12	1	PiS2, PiS3, PiS5, PiS6a, PiS7, PiS11, PiS13	7	8	0.1250
	PiS3-SLF5 ^C	-	0	PiS2, PiS3	2	2	0.0000
Type 6	PiS2-SLF6 ^C	-	0	PiS2, PiS3, PiS5, PiS6a, PiS7, PiS11, PiS12, PiS13	8	8	0.0000
	PiS3-SLF6 ^C	PiS2	1	PiS3	1	2	0.5000
Type 8	PiS2-SLF8 ^C	<i>Pi</i> S6a	1	<i>Pi</i> S2, <i>Pi</i> S3, <i>Pi</i> S5, <i>Pi</i> S7, <i>Pi</i> S11, <i>P</i> iS12, <i>Pi</i> S13	7	8	0.1250
Type 9	S7-SLF9A ^b	S19	1	S5, S7, S9, S11, S17	5	6	0.1667
	S11-SLF9 ^b	S19	1	S5, S7, S9, S11, S17	5	6	0.1667
Type 13	S7-SLF13 ^a	-	0	S5, S7, S9, S11, S17, S19	6	6	0.0000
	total		24		105	129	

 a Results cited from ref. 9. S7-SLF13 is renamed from S7-SLF3. (See caption of Supplementary Fig. 1.)

^b Results from this work.

^c Results cited from ref. 23. *Pi* indicates *Petunia inflata*.

^d Interaction between S₂₂-RNase and S₇-SLF1 eliminated from statistical analysis, because this results is based on the prediction and not random trial.

Supplementary Table 13 Statistical analyses of interactions between S-RNase and SLF

(a) Analysis for Bernouli simulation

	SLFs	S5	S7	S9	S11	S17	S19	PiS1	PiS2	PiS3	PiS5	PiS6	PiS7	PiS12	PiS13			
Type 1	S5-SLF1	0	0	1	0	1	0											
	S7-SLF1	0	0	1	0	1	0											
	S9-SLF1	0	0	0	0	1	0											
	S11-SLF1	0	0	0	0	1	0											
	PiS2-SLF1				0			1	0	1	0		1		1			
	PiS3-SLF1								0	0								
Type 2	S5-SLF2	0	0	1	1	0	0											
	S7-SLF2	0	0	1	1	0	1											
	S11-SLF2	0	0	1	0	0	0											
Туре З	S5-SLF3	0	1	0	0	0	0											
	S7-SLF3	0	0	0	0	0	0											
	S11-SLF3	0	1	0	0	0	0											
	S11-SLF3B	0	0	0	0	0	0											
Type 4	PiS2-SLF4				0				0	0	1	0	0	0	0			
Type 5	PiS2-SLF5				0				0	0	0	0	0	1	0			
	PiS3-SLF5								0	0								
Type 6	PiS2-SLF6				0				0	0	0	0	0	0	0			
	PiS3-SLF6								1	0								
Type 8	PiS2-SLF8				0				0	0	0	1	0	0	0			
Type 9	S7-SLF9	0	0	0	0	0	1											
	S11-SLF9	0	0	0	0	0	1											
Type 13	S7-SLF13	0	0	0	0	0	0											
	Resulting fact	tors for B	ernouli si	mulatio	n													
	Average		0.1860															
	S.D.		0.3907															
	Count		129															
	S.E.		0.0344															
	T-value		1.9787															
	C.I.		0.0681															
(b) Anal	vois for Mont	o Corlo (imulatio	n														
			07	0 0	011	C17	C10	DIC1	Dieo	Dieo	DiGE	Dice	Diez	DIG10	DIC10	Pootivo	Total	Proportion
Tupo 1		0	0	1	0	1	0	1	0	1 100	0	1 130	1 107	11012	1 10 10	r usuve	10121	0.5000
Type 1		0	0		1	0	1	1	0	1	0		1		'	0	6	0.5000
Type 2		0	1	0	0	0	0									3	6	0.5000
Type 3		0	1	0	0	0	0		0	0	4	0	0	0	0	1	0	0.1007
Type 4					0				0	0	0	0	0	1	0	1	0	0.1250
Type 5					0				1	0	0	0	0	1	0	1	0	0.1250
туре б					0				0	0	0	1	0	0	0	1	0	0.1250
Type 8		0	0	0	0	0	4		U	U	U	I	U	U	U	1	o e	0.1200
Type 9		0	0	0	0	0	1									0	0	0.0000
iype 13		0	U	U	U	0	0									U	0	0.0000

Negative and positive interactions between S-RNase and SLF, which were summarized in Supplementary Table 12, were expressed as 0 and 1, respectively.

Haprotypes	Total number of reads (bp)	Read length (bp) ^a	Mean. read length (bp)	Mean. base quality
<i>S5</i>	590,953	40 - 722	355	32.7
<i>S7</i>	634,016	40 - 1196	288	32.3
<i>S9</i>	550,736	40 - 893	352	32.3
S11	545,880	40 - 764	344	32.2
S17	550,612	40 - 1118	347	32.3
S19	521,109	40 - 987	343	32.1
S0m	101,431	40 - 1118	410	29.2

Supplementary Table 14 Summary of the sequenced reads

Total number of reads, read length, mean of read length, and mean of base quality score are shown. ^a The shortest and the longest lengths.

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