

Supplementary Table 1 List of primers used in this work

Purpose	Amplicon length (bps)	Primer names	Primer sequences
SGRL sequence identification	692	MK_C15f MK_C15rev	CATAATGCCTTTTCATTTTCACC TGTAGGTTCTTGGGATAAATACTTGC
SGRL sequence identification	Nested primers for suppression PCR	SGRL-R1 SGRL-R2	AAAGATGGCTTTAACATGATAGGG GGTGA AAAATGAAAAGGCATTATG
SGRL sequence identification	Nested primers for suppression PCR	SGRL-F1 SGRL-F2	GCAAGTATTATCCCAAGAACCTACA TCTATCCCACTGTGATTTAACAGC
SGRL sequence identification	Nested primers for suppression PCR	SGRL-F3 SGRL-F4	GTTTATGTTTGTAGTCCGGAGG ATTGCAACCTTATCGAAGAGTTG
SGRL JI 281 x JI 399 mapping	692, cut by SspI	MK_C15f MK_C15rev	CATAATGCCTTTTCATTTTCACC TGTAGGTTCTTGGGATAAATACTTGC
SGRL Princess x JI 185 mapping	897 Sequencing primer	SGRL-F8 SGRL-R1 SGRL-R3	CGAACCTACTGTGTTTTGGGG AAAGATGGCTTTAACATGATAGGG ATCAACTCACCAGACCTGC
SGRL diversity screen	1250	SGRL-F9 SGRL-R7	GATTTTGGATTGTTGCGGTG TCATCCTTCTGGTACCACCC
SGRL diversity screen	1121	SGRL-F2 SGRL-R4	TCTATCCCACTGTGATTTAACAGC GAATCTCCGCATTGAATTGC
SGRL diversity screen	1163	SGRL-F10 SGRL-R5	TTGCTTTGTTAGTGGTCTAATT GAATTTTGTCTCGTCTAAACCC
SGRL diversity screen	717	SGRL-F4 SGRL-R11	ATTGCAACCTTATCGAAGAGTTG TCGGGATATAAACAATCAACC
SGRL TILLING genotyping	736	SGRL-F4 SGRL-R5	ATTGCAACCTTATCGAAGAGTTG GAATTTTGTCTCGTCTAAACCC
SGRL 'Cameor' specific	919	SGRL-F1 SGRL-diag3R	GCAAGTATTATCCCAAGAACCTACA CTGAATCTTGTATTATTGAGC
SGRL 'JI 2822' specific	929	SGRL-diag1F SGRL-R4	CGTTTGATACTCTTTTAAAGTGGG GAATCTCCGCATTGAATTGC
SGRL 'JI 2202' specific	881	SGRL-diag5F SGRL-R4	CTTAGGTTGTTCAATGATATATCC GAATCTCCGCATTGAATTGC
SGRL 'JI 281' specific	351	SGRL-diag6F SGRL-R7	CCTACATTCTATCCCCTCC TCATCCTTCTGGTACCACCC
SGRL 'JI 1201' specific	1200, cut by BamHI to 750 and 350	SGRL-F10 SGRL-R5	TTGCTTTGTTAGTGGTCTAATT GAATTTTGTCTCGTCTAAACCC
SGRL 'control' for allele specific PCR	1121	SGRL-F2 SGRL-R4	TCTATCCCACTGTGATTTAACAGC GAATCTCCGCATTGAATTGC
SGRL 5'UTR limit identification	Gene specific primers used	SGRL-R4 SGRL-R7	GAATCTCCGCATTGAATTGC TCATCCTTCTGGTACCACCC
SGRL 3'UTR limit identification	Gene specific primers used	SGRL-F10 SGRL-F6	TTGCTTTGTTAGTGGTCTAATT TCTGAAGAATGGAGAAGCC
SGRL constructs	841/838 (HIS)	attB1-SGRL-F attB2-SGRL-R attB2-SGRL-R-HIS	GGGGACAAGTTTGTAAAAAAGCAGGCTCAATGGCATCATTATGTCATA GGGGACCACTTTGTACAAGAAAGCTGGGTTCTAGCTGAGGAAAAGAAATCGG GGGGACCACTTTGTACAAGAAAGCTGGGTAGCTGAGGAAAAGAAATCGGGAT
SGR constructs	847/844 (HIS)	attB1-SGR-F attB2-SGR-R attB2-SGR-R-HIS	GGGGACAAGTTTGTACAAGAAAGCTGGGTAGCTGAGGAAAAGAAATCGG GGGGACCACTTTGTACAAGAAAGCTGGGTTTACAAGTTACCATGTTGGG GGGGACCACTTTGTACAAGAAAGCTGGGTACAAGTTACCATGTTGGGGAT
PaO constructs	1660/1657 (HIS)	attB1-PaO-F attB2-PaO-R attB2-PaO-R-HIS	GGGGACAAGTTTGTACAAGAAAGCTGGGTAGCTGAGGAAAAGAAATCGG GGGGACCACTTTGTACAAGAAAGCTGGGTTTCAATCGATTTCGGCATGTA GGGGACCACTTTGTACAAGAAAGCTGGGTAATCGATTTCGGCATGTAAT
SGRL3421 HIS tagged construct	649 (HIS)	attB1-SGRL-F attB2-3421-HIS	GGGGACAAGTTTGTAAAAAAGCAGGCTCAATGGCATCATTATGTCATA GGGGACCACTTTGTACAAGAAAGCTGGGTAACATCCATTCTGTGTAT
SGRL (S241 ^{STOP}) constructs	784/781 (HIS)	attB1-SGRL-F attB2-S241 ^{STOP} -R attB2-S241-HIS	GGGGACAAGTTTGTAAAAAAGCAGGCTCAATGGCATCATTATGTCATA GGGGACCACTTTGTACAAGAAAGCTGGGTTTCAAAGAAGAATAGCAAAAA GGGGACCACTTTGTACAAGAAAGCTGGGTTAAGAAGAATAGCAAAAAAGAG
SGRL (M229 ^{STOP}) constructs	748/745 (HIS)	attB1-SGRL-F attB2-M229 ^{STOP} -R attB2-M229-R-HIS	GGGGACAAGTTTGTAAAAAAGCAGGCTCAATGGCATCATTATGTCATA GGGGACCACTTTGTACAAGAAAGCTGGGTACTATGGGCTTCTCCATTCTT GGGGACCACTTTGTACAAGAAAGCTGGGTATGGGCTTCTCCATTCTTCAG
SGRL qPCR primers	104	SGRL-F SGRL-R	GCAATGGAGGAAAAACGAGGC GCAAAAAAGAGCTTGGAAATGTGG
SGR qPCR primers	139	QSGR-2F QSGR-2rev	CGCAATGGAAGAAGTGAAG AAAGCCTTCAACACCACAGG
Actin qPCR reference gene	104	PsActF PsActR	CACAATTGGCGCTGAAAGAT TAATTGAGTTAAATGTCGCTCATGGA
pDONR vector sequence checks	Variable	pDONR-Fs pDONR-R	GTTAACGCTAGCATGGATCTC GTAACATCAGAGATTTTGGACAC
DEST 1/3 vector sequence checks	Variable	M13-F M13-R	GTA AAAACGACGGCCAGTG GGA AACAGCTATGACCATG
DEST 1/3 vector sequence checks	Variable	attB1-Fs attB2-Rs	ACAAGTTTGTACAAAAAAGCAGGC ACCATTGTACAAGAAAGCTGGG
Suppression PCR adaptor pair	use with BamHI, BclI, BglII, BstYI	APX1 top APX1 lower	GATCACCTGCCAA CGTCTGATGCTGACTACGCTTGCATCGTCGCTCCGGGCAGGT
Suppression PCR adaptor pair	use with ClaI, MspI, TaqI	TPX1 top TPX1 lower	CGTCGTGCGTGCAA CGTCTGATGCTGACTACGCTTGCATCGTCGCTCCGCACGCACGA
Suppression PCR adaptor pair	use with DraI, HpaI, EcoRV, NaeI, ScaI, PvuII, SspI, StuI	APX1Blunt top APX1Blunt lower	ACCTGCCAA CGTCTGATGCTGACTACGCTTGCATCGTCGCTCCGGGCAGGT
Suppression PCR primers	Variable	APX1A APX1B	CGTCTGATGCTGACTACGCT ACTACGCTTGCATCGTCGCT
cDNA synthesis primer		A236	GACTCGAGAATTGGATCCTTTTTTTTTTTTTTTT
Poly-A adaptor primer		A237	GACTCGAGAATTGGATCC