

# Development of SSR markers linked to stress responsive genes along tomato chromosome 3 (*Solanum lycopersicum* L.)

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**Supplementary Table S1.** Nearby genes for developed 20 SSR markers along with their description.

SSR locus	Gene locus	Chromosome coordinates	Description
ju003		SL2.50ch03: 67710651.. 67710885	
	Solyc03g118960	SL2.50ch03:67708555..67710621	Multidrug and toxin extrusion protein 1 (AHRD V1 *--- S47A1_XENTR); contains Interpro domain(s) IPR015521 MATE family transporter related protein
	Solyc03g118970	SL2.50ch03:67712885..67715799	Multidrug resistance protein mdtK (AHRD V1 ***- MDTK_CITK8); contains Interpro domain(s) IPR015521 MATE family transporter related protein
	Solyc03g118950	SL2.50ch03:67706003..67707289	DsRNA-binding protein 3 (AHRD V1 ***- D7LRB5_ARALY); contains Interpro domain(s) IPR001159 Double-stranded RNA binding
ju004		SL2.50ch03: 64521427..64521653	
	Solyc03g114580	SL2.50ch03:64520115..64530361	Uridine kinase (AHRD V1 *- *- C3SA58_BRADI); contains Interpro domain(s) IPR000764 Uridine kinase
	Solyc03g114560	SL2.50ch03:64512634..64513982	Strictosidine synthase family protein (AHRD V1 ***- D7LVM7_ARALY); contains Interpro domain(s) IPR004141 Strictosidine synthase
	Solyc03g114550	SL2.50ch03:64510484..64511709	Strictosidine synthase family protein (AHRD V1 ***- D7LVM7_ARALY); contains Interpro domain(s) IPR004141 Strictosidine synthase
ju006		SL2.50ch10: 42685545.. 42685785	
	Solyc10g047820	SL2.50ch10:42763906..42766189	Transporter CorA family (AHRD V1 *- *- Q62C47_BURMA)
	Solyc10g047810	SL2.50ch10:42751106..42753214	Receptor protein kinase-like protein (AHRD V1 ***- Q9LSL5_ARATH); contains Interpro domain(s) IPR002290 Serine/threonine protein kinase
	Solyc10g047780	SL2.50ch10:42473191..42474359	Seed lectin (AHRD V1 *- *- LECS_VATMA); contains Interpro domain(s) IPR001220 Legume lectin, beta chain
	Solyc10g047770	SL2.50ch10:42457293..42457550	Receptor protein kinase-like protein (AHRD V1 ***- Q9LSL5_ARATH); contains Interpro domain(s) IPR017442 Serine/threonine protein kinase-related
ju007		SL2.50ch03: 66570341.. 66570470	
	Solyc03g117370	SL2.50ch03:66533935..66538545	WD-40 repeat protein (AHRD V1 *--- B2J4D1_NOSP7); contains Interpro domain(s) IPR017986 WD40 repeat, region
	Solyc03g117420	SL2.50ch03:66554722..66569270	Leucine-rich repeat family protein (AHRD V1 ***- D7KDI8_ARALY); contains Interpro domain(s) IPR006553 Leucine-rich repeat, cysteine-containing subtype
	Solyc03g117380	SL2.50ch03:66539750..66540396	Topless-related protein 1 (AHRD V1 *- *- TPR1_ARATH)
	Solyc03g117470	SL2.50ch03:66615377..66620417	Calcineurin subunit B (AHRD V1 *- *- B6U4N5_MAIZE); contains Interpro domain(s) IPR011992 EF-Hand type
	Solyc03g117480	SL2.50ch03:66624199..66629058	Pyrophosphate-energized proton pump (Pyrophosphate-energized inorganic pyrophosphatase) (H(+)-PPase) (AHRD V1 **** C7HW54_9FIRM); contains Interpro domain(s) IPR004131 Inorganic H <sup>+</sup> pyrophosphatase

	Solyc03g117450	SL2.50ch03:66611609..66612183	Major allergen Mal d 1 (AHRD V1 ***- Q43550_MALDO); contains Interpro domain(s) IPR000916 Bet v I allergen
	Solyc03g117430	SL2.50ch03:66599928..66607724	Cobalamin synthesis protein P (AHRD V1 ***- D3M8Z8_9ACTO); contains Interpro domain(s) IPR003495 Cobalamin (vitamin B12) biosynthesis CobW-like
ju008		SL2.50ch03:53049368..53049607	
	Solyc03g083200	SL2.50ch03:53043734..53044215	structural maintenance of chromosomes flexible hinge domain-containing protein GMI1 isoform X11 [
	Solyc03g083190	SL2.50ch03:53030731..53037929	structural maintenance of chromosomes flexible hinge domain-containing protein GMI1 isoform X3
	Solyc03g083210	SL2.50ch03:53049663..53064618	At5g24280 (Fragment) (AHRD V1 *- *- Q3YIX0_ARATH)
	Solyc03g083220	SL2.50ch03:53071328..53072381	Helicase-like protein (AHRD V1 *- *- Q69V29_ORYSJ); contains Interpro domain(s) IPR010285 Protein of unknown function DUF889, eukaryote
ju010		SL2.50ch03: 3324789.. 3324994	
	Solyc03g026010	SL2.50ch03:3420662..3422038	Transmembrane protein 161B (AHRD V1 *- *- T161B_MOUSE)
	Solyc03g025970	SL2.50ch03:3394813..3400693	Methyl binding domain protein (AHRD V1 *- *- B9I4C0_POPTR); contains Interpro domain(s) IPR001739 Methyl-CpG DNA binding
	Solyc03g025980	SL2.50ch03:3402975..3407759	Peptidyl-prolyl cis-trans isomerase (Fragment) (AHRD V1 ***- A9Y0F6_9MYRT); contains Interpro domain(s) IPR007062 Protein phosphatase inhibitor 2 (IPP-2)
	Solyc03g025950	SL2.50ch03:3384122..3387029	Membrane-associated progesterone receptor component 1 (AHRD V1 ***- C0NU44_AJECG); contains Interpro domain(s) IPR001199 Cytochrome b5
	Solyc03g025920	SL2.50ch03:3334446..3335904	F-box family protein (AHRD V1 ***- D7LS19_ARALY); contains Interpro domain(s) IPR001810 Cyclin-like F-box
	Solyc03g025870	SL2.50ch03:3256762..3259518	MYB transcription factor (AHRD V1 *- *- Q9LTJ5_ARATH); contains Interpro domain(s) IPR015495 Myb transcription factor
	Solyc03g025840	SL2.50ch03:3238954..3241512	Cytochrome b561 (AHRD V1 ***- Q3LGX5_CITLA); contains Interpro domain(s) IPR004877 Cytochrome b561, eukaryote
ju011		SL2.50ch03:70061829..70062070	
	Solyc03g122100	SL2.50ch03:70060756..70065647	3-oxoacyl-synthase I (AHRD V1 *- *- B6SJZ0_MAIZE); contains Interpro domain(s) IPR016038 Thiolase-like, subgroup
	Solyc03g122080	SL2.50ch03:70050315..70052922	Legume lectin beta domain (AHRD V1 *- *- A2Q3C0_MEDTR); contains Interpro domain(s) IPR010341 Protein of unknown function DUF936, plant
	Solyc03g122040	SL2.50ch03:70031953..70041568	COP1-Interacting Protein1 7 (CIP7) (Fragment) (AHRD V1 *- *- Q7GDB1_ARATH)
	Solyc03g122090	SL2.50ch03:70055292..70058642	Protein transport protein Sec22 (AHRD V1 *- *- B0CRV5_LACBS); contains Interpro domain(s) IPR001388 Synaptobrevin IPR010908 Longin
	Solyc03g122070	SL2.50ch03:70047510..70049605	Uncharacterized ABC transporter ATP-binding protein/permease C9B6.09c (AHRD V1 *- *- YNT9_SCHPO); contains Interpro domain(s) IPR003439 ABC transporter-like
	Solyc03g122130	SL2.50ch03:70079537..70082001	L-lactate dehydrogenase (AHRD V1 ***- C0S8Q7_PARBP); contains Interpro domain(s) IPR012133 Alpha-hydroxy acid dehydrogenase, FMN-dependent
ju014		SL2.50ch03:66799080..66799311	

	Solyc03g117750	SL2.50ch03:66789853..66794315	Polygalacturonase (AHRD V1 ***- B6SZN5_MAIZE); contains Interpro domain(s) IPR012334 P
	Solyc03g117730	SL2.50ch03:66779750..66783039	Tubby-like protein 13 (AHRD V1 ***- D2CMM7_ORYSJ); contains Interpro domain(s) IPR000007 Tubby, C-terminal
	Solyc03g117720	SL2.50ch03:66775127..66779386	AP2-like ethylene-responsive transcription factor At1g16060 (AHRD V1 ***- AP2L1_ARATH); contains Interpro domain(s) IPR001471 Pathogenesis-related transcriptional factor and ERF, DNA-binding
	Solyc03g117770	SL2.50ch03:66801297..66806435	Serine incorporator 1 (AHRD V1 ***- B5X3W1_SALSA); contains Interpro domain(s) IPR005016 TMS membrane protein/tumour differentially expressed protein
	Solyc03g117740	SL2.50ch03:66786743..66789552	Chloroplast At1g16080 protein (Fragment) (AHRD V1 *- Q1HRY1_SOLLC)
	Solyc03g117790	SL2.50ch03:66813605..66820539	Serine/threonine protein kinase (AHRD V1 *- Q16PN5_AEDAE); contains Interpro domain(s) IPR002290 Serine/threonine protein kinase
	Solyc03g117780	SL2.50ch03:66806776..66811545	UV excision repair protein RAD23 (AHRD V1 ***- B6JX15_SCHJY); contains Interpro domain(s) IPR004806 UV excision repair protein Rad23
ju015		SL2.50ch03: 4614781..4615028	
	Solyc03g032020	SL2.50ch03:4516620..4519322	Hydroxy-methylglutaryl-coenzyme A reductase (AHRD V1 **** O48624_TOBAC); contains Interpro domain(s) IPR002202 Hydroxymethylglutaryl-CoA reductase, class I/II, catalytic
	Solyc03g032070	SL2.50ch03:4583223..4586185	Holliday junction ATP-dependent DNA helicase ruvB (AHRD V1 **** D0N0A1_PHYIN); contains Interpro domain(s) IPR010339 TIP49, C-terminal
	Solyc03g032060	SL2.50ch03:4571144..4571680	Ring finger protein (AHRD V1 *- O49869_HORVU); contains Interpro domain(s) IPR018957 Zinc finger, C3HC4 RING-type
	Solyc03g032040	SL2.50ch03:4555538..4559925	MFS family major facilitator transporter D-xylose cation symporter (AHRD V1 *** D4E1S5_SEROD); contains Interpro domain(s) IPR016196 Major facilitator superfamily, general substrate transporter
	Solyc03g032090	SL2.50ch03:4609738..4611021	Amino acid transporter family protein (AHRD V1 **** D7LI10_ARALY); contains Interpro domain(s) IPR013057 Amino acid transporter, transmembrane
	Solyc03g032150	SL2.50ch03:4653491..4658660	Serine/threonine kinase-like protein ABC1063 (AHRD V1 **** Q1KMP8_HORVD); contains Interpro domain(s) IPR002290 Serine/threonine protein kinase
ju017		SL2.50ch03:67271681..67271951	
	Solyc03g118380	SL2.50ch03:67272508..67272981	DNA-directed RNA polymerase II subunit (AHRD V1 **** A8N5F1_COPC7); contains Interpro domain(s) IPR012340 Nucleic acid-binding, OB-fold
	Solyc03g118370	SL2.50ch03:67265834..67269224	Serine carboxypeptidase K10B2.2 (AHRD V1 **** B6TKD2_MAIZE); contains Interpro domain(s) IPR001563 Peptidase S10, serine carboxypeptidase
	Solyc03g118390	SL2.50ch03:67278298..67287556	Coiled-coil domain-containing protein SCD2
ju022		SL2.50ch12:5685216.. 5685492	
	Solyc12g014630	SL2.50ch12:5630952..5631575	Cortical cell-delineating protein (AHRD V1 *--- B6U436_MAIZE); contains Interpro domain(s) IPR013770 Plant lipid transfer protein and hydrophobic protein, helical
	Solyc12g015640	SL2.50ch12:5642779..5645448	Mitochondrial transcription termination factor (Fragment) (AHRD V1 *--- C6FB12_PSEMZ); contains Interpro domain(s) IPR003690 Mitochondrial tran-

		scription termination factor-related
Solyc12g015650	SL2.50ch12:5649944..5651353	Armadillo repeat containing 4 (AHRD V1 ***- A8K906_HUMAN); contains Interpro domain(s) IPR011989 Armadillo-like helical
Solyc12g015660	SL2.50ch12:5655855..5659081	Zinc ion binding protein (AHRD V1 ***- D7KN38_ARALY); contains Interpro domain(s) IPR013536 WLM
Solyc12g015680	SL2.50ch12:5664926..5665519	Ycf60 protein (AHRD V1 ***- Q8DJZ7_THEEB)
Solyc12g015690	SL2.50ch12:5671093..5671896	Fasciclin-like arabinogalactan protein 10 (AHRD V1 ***- A9XTL5_GOSHI); contains Interpro domain(s) IPR000782 FAS1 domain
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ju023	SL2.50ch12:5579349.. 5579659	
Solyc12g014590	SL2.50ch12:5578789..5581766	Pirin (AHRD V1 ***- D7RJ70_CARPA); contains Interpro domain(s) IPR012093 Pirin
Solyc12g014580	SL2.50ch12:5577417..5577847	Pollen allergen Ole e 6 (AHRD V1 *- *- ALL6_OLEEU); contains Interpro domain(s) IPR015333 Pollen allergen ole e 6
Solyc12g014570	SL2.50ch12:5569788..5576277	Glycerophosphoryl diester phosphodiesterase family protein (AHRD V1 ***- D7MKI0_ARALY); contains Interpro domain(s) IPR017946 PLC-like phosphodiesterase, TIM beta/alpha-barrel domain
Solyc12g014600	SL2.50ch12:5600467..5603988	Heterogeneous nuclear ribonucleoprotein A3 (AHRD V1 *--- B6TGB9_MAIZE); contains Interpro domain(s) IPR000504 RNA recognition motif, RNP-1
Solyc12g014660	SL2.50ch12:5655855..5659081	Zinc ion binding protein (AHRD V1 ***- D7KN38_ARALY); contains Interpro domain(s) IPR013536 WLM
Solyc12g014610	SL2.50ch12:5610112..5616122	WRKY transcription factor 78 (AHRD V1 ***- Q5HZ67_ORYSA); contains Interpro domain(s) IPR003657 DNA-binding WRKY
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ju026	SL2.50ch03:2747742.. 2747972	
Solyc03g025310	SL2.50ch03:2751529..2759474	Sec-independent protein translocase protein tatA/E homolog (AHRD V1 *- *- D4TUR0_9NOST); contains Interpro domain(s) IPR006312 Twin-arginine translocation protein TatA/E
Solyc03g025300	SL2.50ch03:2743304..2743489	protein FAR1-RELATED SEQUENCE 6-like
Solyc03g025290	SL2.50ch03:2734190..2738566	Hydroxyproline-rich glycoprotein family protein
Solyc03g025320	SL2.50ch03:2760932..2764000	Hydroxycinnamoyl transferase (AHRD V1 ***- D2XJ64_9MAGN); contains Interpro domain(s) IPR003480 Transferase
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ju027	SL2.50ch03:2948914..2949151	
Solyc03g025530	SL2.50ch03:2911517..2919038	S-layer domain protein (AHRD V1 *- *- B2J947_NOSP7); contains Interpro domain(s) IPR001119 S-layer homology region
Solyc03g025510	SL2.50ch03:2898281..2903218	Calmodulin-binding heat shock protein (AHRD V1 ***- Q1RN86_GOSHI); contains Interpro domain(s) IPR002921 Lipase, class 3
Solyc03g025500	SL2.50ch03:2893357..2896872	Prolyl 4-hydroxylase alpha subunit-like protein (AHRD V1 ***- Q9LSI6_ARATH); contains Interpro domain(s) IPR006620 Prolyl 4-hydroxylase, alpha subunit
Solyc03g025550	SL2.50ch03:2943318..2949033	Signal peptide peptidase family protein (AHRD V1 ***- D7M8R6_ARALY); contains Interpro domain(s) IPR007369 Peptidase A22B, signal peptide peptidase
Solyc03g025560	SL2.50ch03:2960198..2962401	Undecaprenyl pyrophosphate synthase (AHRD V1 ****- UPPS_PYRFU); contains

	Solyc03g025600	SL2.50ch03:2995919..3004569	Interpro domain(s) IPR001441 Di-trans-poly-cis-decaprenylcistransferase-like Pectinacetyltransferase like protein (Fragment) (AHRD V1 *--- Q56WP8_ARATH); contains Interpro domain(s) IPR004963 Pectinacetyltransferase
ju029		SL2.50ch03:69455523..69455806	
	Solyc03g121270	SL2.50ch03:69429833..69434237	IAA-amino acid hydrolase (AHRD V1 **** D5FTH2_POPTO); contains Interpro domain(s) IPR017439 Peptidase M20D, mername-AA028/carboxypeptidase Ss1
	Solyc03g121290	SL2.50ch03:69441939..69444677	F-box family protein (AHRD V1 ***- B9I3S8_POPTR); contains Interpro domain(s) IPR001810 Cyclin-like F-box
	Solyc03g121310	SL2.50ch03:69446948..69451780	RWD domain-containing protein (AHRD V1 ***- Q38HU0_SOLTU); contains Interpro domain(s) IPR006575 RWD
	Solyc03g121350	SL2.50ch03:69465476..69471549	Anoctamin-like protein (AHRD V1 ***- D0MXY8_PHYIN); contains Interpro domain(s) IPR007632 Protein of unknown function DUF590
	Solyc03g121360	SL2.50ch03:69474092..69474703	Charged multivesicular body protein 1b (AHRD V1 ***- B6T9W6_MAIZE); contains Interpro domain(s) IPR005024 Snf7
ju035		SL2.50ch03:63216535..63216811	
	Solyc03g112890	SL2.50ch03:63173294..63175404	Myb family transcription factor (AHRD V1 *-*- D7M9F3_ARALY); contains Interpro domain(s) IPR015495 Myb transcription factor
	Solyc03g112910	SL2.50ch03:63189344..63204073	Pantothenate kinase (AHRD V1 *-** C1FDA4_9CHLO); contains Interpro domain(s) IPR015844 Pantothenate kinase, acetyl-CoA regulated, two-domain type
	Solyc03g112900	SL2.50ch03:63185027..63188415	Iron-sulfur cluster assembly scaffold protein IscU (AHRD V1 **** D0I7Q6_VIBHO); contains Interpro domain(s) IPR002871 NIF system FeS cluster assembly, NifU, N-terminal
	Solyc03g112920	SL2.50ch03:63207372..63207902	C2H2L domain class transcription factor (AHRD V1 ***- D9ZIU3_MALDO)
	Solyc03g112930	SL2.50ch03:63221882..63223966	Dof zinc finger protein-like (AHRD V1 ***- Q0WPR9_ARATH); contains Interpro domain(s) IPR003851 Zinc finger, Dof-type
	Solyc03g112950	SL2.50ch03:63256327..63287724	Serine/threonine-protein kinase (AHRD V1 ***- D2V0W7_NAEGR); contains Interpro domain(s) IPR015519 Ataxia-Telangiectasia Mutated
ju037		SL2.50ch03:64862699..64862925	
	Solyc03g114980	SL2.50ch03:64837867..64839736	Unknown Protein (AHRD V1)
	Solyc03g115000	SL2.50ch03:64852540..64857706	Belongs to the 26 member TON1 Recruiting Motif family. Interacts with OFPs through the M8 motif.
	Solyc03g115010	SL2.50ch03:64866814..64867839	Transcription factor CYCLOIDEA (Fragment) (AHRD V1 *-*- CYCLD_ANTML); contains Interpro domain(s) IPR005333 Transcription factor, TCP
	Solyc03g115030	SL2.50ch03:64880092..64882233	Mitochondrial import receptor subunit TOM5 homolog (AHRD V1 ***- TOM5_ARATH)
	Solyc03g115040	SL2.50ch03:64882651..64884482	Xylanase inhibitor (Fragment) (AHRD V1 ***- Q53IQ4_WHEAT); contains Interpro domain(s) IPR001461 Peptidase A1
ju039		SL2.50ch04: 25472989..25473278	
	Solyc04g025160	SL2.50ch04:25432546..25438502	Arsenite ATPase transporter (Eurofung) (AHRD V1 **** C8VJ74_EMENI); contains Interpro domain(s) IPR003348 ATPase, anion-transporting
	Solyc04g025120	SL2.50ch04:25460162..25460317	Arsenite translocating ATPase-like protein (Fragment) (AHRD V1 ***-

A8JGB0_CHLRE)			
ju040		SL2.50ch03:65907225..65907561	
	Solyc03g116500	SL2.50ch03:65900461..65904769	polygalacturonase (XOPG1)
	Solyc03g116530	SL2.50ch03:65913029..65914334	Glyoxalase/bleomycin resistance protein/dioxygenase (AHRD V1 ***-Q2HVV5_MEDTR); contains Interpro domain(s) IPR004360 Glyoxalase/bleomycin resistance protein/dioxygenase
ju041		SL2.50ch03:18327688..18328001	
	Solyc03g071690	SL2.50ch03:18328472..18330381	Non-symbiotic hemoglobin 2 (AHRD V1 ***- D7L8Z8_ARALY); contains Interpro domain(s) IPR001032 Leghaemoglobin
	Solyc03g071680	SL2.50ch03:18320038..18322555	golgin subfamily A member 6-like protein 22 isoform X1
	Solyc03g071670	SL2.50ch03:18316096..18318175	Protein binding protein (AHRD V1 ***- D7LXJ1_ARALY)
	Solyc03g071660	SL2.50ch03:18305959..18306838	WD40 repeat domain-containing protein (AHRD V1 ***- D2V3E5_NAEGR)