

# $\Phi$ -X-Basic- $X_2$ -pS- $X_3$ - $\Phi$ CDPK and SNF1-like

Bachmann et al. 1996, Huber and Huber, 1996; Huang and Huber, 2001; Weekes et al., 1993

full motif

V V D R G E S K N G V C A  
S V Q R Q N S E N V L I D  
P V T R L D S D A G A L F

At3g07020 UDP-glucose:sterol glucosyltransferase  
At5g61740 ABC transporter ATH14  
At5g41800 put. proline transporter

W G R R S G S W D V A A T  
S K E K R L S F V R A W E  
E H R R S R S E E N I N L  
A P S R V G S G M I V A I  
H F S K S A S P A S V I K  
E S G K S Y S L P E I L R  
S S R R R Q S S E I V P E  
A T P R V S T P E I L T P

At4g24630 DHC-type zinc finger domain-containing protein  
At3g61260 remorin  
At3g26490 unknown protein; cont. NPH3 dom  
At4g35600 kinase group RLCK VII  
At2g02480 DNAPol III gamma-like  
At3g56930 DHC-type zinc finger domain-cont. protein  
At2g16250 RLK (11 LRRs)  
At1g47670 put. Lys/His transporter

partial motif

R V E R S D S F A S E I I  
K A S K K Q S D S E E T S  
V L E R L D S D L Q K L E  
P L P R G G S G P L N G F  
K I W R D G S Y D F W T D  
S L R R R H S A G R S S R  
S V D H G S S N N N G T S  
T A G H H Y T V

At3g53380 RLK L-lectin group  
At1g57700 cdc2-related kinase  
At4g02710 sim. to chromosome condensation ATPases  
At2g46920 PP2C  
At1g78610 putative mechanosensitive ion channel  
At2g41705 cont. CRCB-like domain  
At3g17420 kinase group TAKL  
At2g18960 H<sup>+</sup>-ATPase 1, plasma membrane-type (AHA 1)

V M L D V Y S P D R L A G  
Q L P C R V S T S D V D  
V A M G R M S R D S A A E  
N A T G R M S G N L A S A  
N V P V S Y S G N G I P T  
N L R A D E S P E K V T V  
F I S P F P S D R F V S P  
R L T F L I T N K I M K M  
A L V S G D S Y R G V S G  
R V S S G E S R G T A S A  
S L G S F R S A A N V

At5g10020 RLK group LRR III (no LRR)  
At1g80830 NRAMP metal ion transporter 1 (NRAMP1)  
At1g59870 ABC transporter family protein (PDR8)  
At1g78880 expressed protein  
At2g32450 put. OC1cNAc transferase  
At3g25070 RIN 4  
At2g35350 PP2C  
At2g02490 hydroxyproline-rich protein-related  
AT4g00340 RLK group SD-2  
multiple kinase group TAKL (At1g01540 or At4g01330)  
multiple plasma membrane intrinsic protein 2 (a,b or c)

# Basic-X<sub>2</sub>-Basic-X<sub>2</sub>-pS SNF1-like

McMichael et al., 1995

H G E R T D S Q D R E A Y	At1g18670	cdc2-related kinase
H F S K S A S P A S V I K	At2g02480	DNAPol III gamma-like
K A S K K Q S D S E E T S	At1g57700	cdc2-related kinase
R V E R S D S F A S E I I	At3g53380	RLK L-lectin group
K I W R D G S Y D F W T D	At1g78610	putative mechanosensitive ion channel
K S E H A D S D S D T F Y	At5g57110	Ca ATPase isoform 8 (ACA 8)
K Q D N S G T E S D A D D	At5g43310	expressed protein; sim. to COP1-interacting protein 7
R T E H R R S R S E E N I	At3g26490	unknown protein; cont. NPH3 dom
R N S Q N L S S S P D R D	At3g25500	formin homology 2 (FH2) domain-containing protein

# (P-9 to -6 Basic)-Φ-X<sub>4</sub>-pS-X-Basic CDPK

Huang et al., 2001

P G R R R G G D V E S G K S E H A	At5g57110	Ca ATPase isoform 8 (ACA 8)
T N A D K S S D R N S G K M M S Y	At3g59110	kinase group TAKL
S L R R R H S A G R S S R L S A D	At2g41705	cont. CRCB-like domain
H Q S A R L T F L I T N K I M K M	At2g02490	hydroxyproline-rich protein-related
A E E Q K M S S I E S F K Q S S L	At2g47000	P-glycoprotein, putative MDR4
M N D L L S G S F K T S V A	At3g52400	syntaxin SYP122
R G S W N A A I F G S W R Q S A S	At2g16250	RLK (11 LRRs)
S T D E Q K L S M E S M K R S S L	At3g62150	multidrug resistance P-glycoprotein MDR17
K Q E K K N T G P V S T Q A A S E	At5g05170	CesA3 cellulose synthase catalytic subunit

# Other [R,K]-x-x-pS

# CaM /(PKA)-like sites

F	Q	E	R	E	E	S	R	D	S	D	D	D	<b>At2g27090</b>	putative bZIP
P	S	E	R	H	K	S	F	D	D	D	D	S	<b>At3g14350</b>	RLK group LRR V (6 LRRs)
P	P	Q	K	E	D	S	N	S	D	Y	D	Y	<b>At4g18760</b>	LRR family
P	K	M	R	S	H	S	G	S	D	Y	M	Y	<b>At5g38560</b>	RLK group PERKL
H	G	E	R	T	D	S	Q	D	R	E	A	Y	<b>At1g18670</b>	cdc2-related kinase
S	R	R	R	Q	S	S	E	I	V	P	E	P	<b>At2g16250</b>	RLK (11 LRRs)
G	S	R	R	T	Q	S	V	N	N	D	E	E	<b>At1g59870</b>	ABC transporter family protein (PDR8)
E	D	V	R	S	D	S	E	S	D	D	E	H	<b>At3g25540</b>	LAG homolog 1 (cont. TLC dom.)
E	D	I	R	S	D	S	E	D	D	D	D		<b>At3g19260</b>	longevity factor-like
C	F	R	R	D	G	S	E	S	P	S	S	E	<b>At1g25320</b>	RLK group LRR III (7 LRRs)
E	K	R	R	S	L	S	S	S	P	P	S	T	<b>At1g59650</b>	expressed protein (CW14)
W	G	R	K	S	G	S	W	D	M	S	P	E	<b>At3g18524</b>	DNA mismatch repair protein MSH2; cont. DHHC zinc finger domain
G	S	Y	R	E	L	S	E	I	A	E	Q	A	<b>At4g30190</b>	H+-ATPase 2, plasma membrane-type (AHA 2)
T	Q	S	R	L	D	S	M	S	E	S	T	T	<b>At2g48010</b>	RLK group RFK3L
D	G	L	R	Q	S	S	D	D	P	S	K	G	<b>At2g26730</b>	RLK group LRR III (5 LRRs)
T	R	K	R	T	L	S	D	P	F	S	N	G	<b>At1g33990</b>	polyneuridine aldehyde esterase, putative
A	P	I	R	V	L	S	D	V	P	K	E	N	<b>At3g51850</b>	CPK 13
F	S	D	R	V	S	S	G	E	S	R	G	T	<b>multiple</b>	kinase group TAKL (At1g01540 or At4g01330)
A	F	L	R	N	A	S	F	L	W	R	N	S	<b>At3g05200</b>	putative RING-H2 zinc finger protein ATL6
E	E	I	K	E	I	S	V	D	H	G	S	S	<b>At3g17420</b>	kinase group TAKL

# pS-x-[R,K]

# PKC-like sites

V	S	T	Q	A	A	S	E	R	G	G	V	D	<b>At5g05170</b>	CesA3 cellulose synthase catalytic subunit
A	S	S	P	A	R	S	P	R	R	P	V	Y	<b>At1g45688</b>	expressed protein
P	A	V	D	P	P	S	P	R	L	S	A	F	At1g15400 or At1g80180	expressed protein
R	H	S	A	G	R	S	S	R	L	S	A	D	<b>At2g41705</b>	cont. CRCB-like domain (involved in chromosome condensation?)
Q	K	L	S	M	E	S	M	K	R	S	S	L	<b>At3g62150</b>	multidrug resistance P-glycoprotein MDR17
K	M	S	S	I	E	S	F	K	Q	S	S	L	<b>At2g47000</b>	P-glycoprotein, putative MDR4
I	F	P	E	K	G	S	Y	R	E	L	S	E	<b>At2g18960&amp;At4g30190</b>	H <sup>+</sup> -ATPase 1&2, plasma membrane-type (AHA 2)
M	T	R	L	P	G	S	F	K	E	T	S	E	<b>At1g53050</b>	cdc2-related kinase
A	I	K	A	L	G	S	F	R	S	N	A	T	<b>AT4g35100</b>	plasma membrane intrinsic protein PIP3 [Arabidopsis thaliana]
G	S	K	S	L	G	S	F	R	S	A	A	N	multiple	plasma membrane intrinsic protein 2 (a,b or c)
N	A	A	I	F	G	S	W	R	Q	S	A	S	<b>At2g16250</b>	RLK (11 LRRs)
N	D	L	L	S	G	S	F	K	T	S	V	A	<b>At3g52400</b>	syntaxin SYP122
E	P	D	Q	I	L	S	P	R	R	S	L	E	<b>At1g57990</b>	put. purine permease
S	E	S	P	R	V	S	T	K	R	D	P	V	<b>At1g78610</b>	putative mechanosensitive ion channel
I	L	S	Q	M	L	S	Q	K	L	R	P	A	<b>At5g47910</b>	AtrbohD respiratory burst oxidase protein D
D	I	F	S	S	G	S	R	R	T	Q	S	V	<b>At1g59870</b>	ABC transporter family protein (PDR8)
E	H	R	V	V	F	S	D	R	V	S	S	G	multiple	kinase group TAKL (At1g01540 or At4g01330)
F	I	S	P	F	P	S	D	R	F	V	S	P	<b>At2g35350</b>	PP2C
S	N	G	S	P	V	S	D	R	A	G	L	Q	<b>At1g23080</b>	auxin efflux carrier, putative PIN7
A	S	A	G	S	N	S	M	K	K	T	N	S	<b>At1g78880</b>	expressed protein
S	S	P	T	I	Q	S	N	R	I	I	Q	T	<b>At2g01210</b>	RLK group LRR III (7 LRRs)
V	Q	L	N	G	I	T	F	K	V	K	Y	C	<b>At3g18524</b>	DNA mismatch repair protein MSH2; cont. DHHC zinc finger domain
K	S	S	D	R	N	S	G	K	M	M	S	Y	<b>At3g59110</b>	kinase group TAKL
A	L	V	S	G	D	S	Y	R	G	V	S	G	<b>AT4g00340</b>	RLK group SD-2
R	G	G	D	V	E	S	G	K	S	E	H	A	<b>At5g57110</b>	Ca ATPase isoform 8 (ACA 8)
R	L	T	F	L	I	T	N	K	I	M	K	M	<b>At2g02490</b>	hydroxyproline-rich protein-related

# [D,E]-pS-[D,E]

D	N	S	G	T	E	S	D	A	D	D	N	H	
L	G	A	A	S	D	S	D	D	N	E	D	K	
S	S	S	L	S	D	S	D	D	D	K	K	S	
L	R	M	G	G	D	S	D	D	D	E	E	M	
I	A	E	I	G	D	T	D	E	D	E	D	D	
R	E	E	S	R	D	S	D	D	D	E	F	S	
K	S	E	H	A	D	S	D	S	D	T	F	Y	
K	V	E	P	E	E	S	E	S	D	D	V	I	
K	M	T	A	I	D	S	D	D	D	G	V	V	
V	L	E	R	L	D	S	D	L	Q	K	L	E	
P	V	T	R	L	D	S	D	A	G	A	L	F	
E	D	V	R	S	D	S	E	S	D	D	E	H	
E	D	I	R	S	D	S	E	D	D	D	D	D	
I	D	N	D	V	D	S	E	S	V	S	E	A	
A	R	V	D	V	D	S	E	G	T	P	T	P	
I	E	E	H	T	D	S	E	S	G	G	E	T	
					M	E	S	E	G	E	T	A	G
S	K	K	Q	S	D	S	E	E	T	S	V	N	
E	H	A	D	S	D	S	D	T	F	Y	I	P	
E	P	E	E	S	E	S	D	D	V	I	I	V	
V	R	S	D	S	E	S	D	D	E	H	E	D	

<b>At5g43310</b>	expressed protein; sim. to COP1-interacting protein 7
<b>At1g34020</b>	transporter-related (weak similarity to UDP-glucose transporter)
<b>At5g41600</b>	reticulum
<b>At3g03050</b>	putative cellulose synthase catalytic subunit CslD3 (KOJAK)
<b>At5g44290</b>	cdc2-related kinase
<b>At2g27090</b>	putative bZIP
<b>At5g57110</b>	Ca ATPase isoform 8 (ACA 8)
<b>At1g19870</b>	unknown protein, contains IQ calmodulin binding motif
<b>At1g70770</b>	unknown protein
<b>At4g02710</b>	sim. to chromosome condensation ATPases (centromere protein homolog)
<b>At5g41800</b>	proline transporter?
<b>At3g25540</b>	LAG homolog 1 (cont. TLC dom.)
<b>At3g19260</b>	longevity factor-like
<b>At2g41705</b>	cont. CRCB-like domain (possibly involved in chromosome condensation?)
<b>At4g33700</b>	sim. to Mg/Co transporter; cont. DUF21, CBS domain
<b>At4g08850</b>	RLK group XII (24 LRRs)
<b>At5g05170</b>	CesA3 cellulose synthase catalytic subunit
<b>At1g57700</b>	cdc2-related kinase
<b>At5g57110</b>	Ca ATPase isoform 8 (ACA 8)
<b>At1g19870</b>	unknown protein, contains IQ calmodulin binding motif
<b>At3g25540</b>	LAG homolog 1 (cont. TLC dom.)

# [R,K]-x-pS PKA-like sites

P	A	T	P	R	V	S	T	P	E	I	L	T
S	E	S	P	R	V	S	T	K	R	D	P	V
Q	L	P	C	R	V	S	T	S	D	V	D	
S	T	G	S	R	R	S	I	D	G	G	E	P
A	S	N	S	R	L	S	P	L	P	E	P	
V	S	S	S	R	L	S	D	G	S	F	D	N
G	N	S	S	R	H	S	F	N	M	F	G	F
G	R	S	S	R	L	S	A	D	D	F	I	E
I	F	P	E	K	G	S	Y	R	E	L	S	E
I	F	P	E	K	G	S	Y	R	E	L	S	E
S	T	V	V	K	G	S	F	G	Y	L	D	P
D	D	P	S	K	G	S	E	G	Q	T	P	P
L	E	L	M	R	E	T	Q	S	V	G	D	E
S	S	G	S	R	R	T	Q	S	V	N	N	D
P	S	S	A	R	N	S	V	S	S	P	I	M
G	S	S	P	R	A	S	V	S	D	N	G	N
V	N	V	Y	R	R	S	V	S	F	G	G	I
R	E	E	S	R	D	S	D	D	D	E	F	S
Q	S	P	S	R	D	S	H	D	G	E	K	T
R	D	P	S	R	A	S	L	G	N	E	E	E
N	D	R	R	R	W	S	F	D	S	V	S	A
D	D	G	L	R	Q	S	S	D	D	P	S	K
S	S	R	R	R	Q	S	S	E	I	V	P	E
V	A	M	G	R	M	S	R	D	S	A	A	E
G	R	M	S	R	D	S	A	A	E	A	S	G
N	A	T	G	R	M	S	G	N	L	A	S	A
D	G	L	L	K	A	S	A	E	V	L	G	K
D	G	L	L	K	A	S	A	E	L	L	G	R
N	D	L	L	K	G	S	F	E	L	P	R	G
S	S	W	G	R	K	S	G	S	W	D	M	S
E	S	W	G	R	R	S	G	S	W	D	V	A
N	S	P	G	K	A	S	I	G	S	Q		
G	A	P	R	K	I	S	G	P	L	D	Y	S
F	H	R	R	K	H	S	W	P	T	E	E	F
R	N	T	G	R	V	S	P	A	V	D	P	P
K	A	S	K	K	Q	S	D	S	E	E	T	S
R	T	E	H	R	R	S	R	S	E	E	N	I
H	V	G	T	K	M	S	N	E	L	A	V	P
K	S	S	D	R	N	S	G	K	M	M	S	Y
T	D	E	Q	K	L	S	M	E	S	M	K	R
S	K	E	K	R	L	S	F	V	R	A	W	E
Y	H	T	L	R	I	S	F	A	E	L	Q	S

<b>At1g47670</b>	put. Lys/His transporter
<b>At1g78610</b>	putative mechanosensitive ion channel
<b>At1g80830</b>	NRAMP metal ion transporter 1 (NRAMP1)
<b>At3g52710</b>	hypothetical protein
<b>At1g61250</b>	secretory carrier membrane protein
<b>At1g59650</b>	expressed protein (CW14)
<b>At2g47000</b>	P-glycoprotein, putative MDR4
<b>At2g41705</b>	cont. CRCB-like domain (involved in chromosome condensation?)
<b>At4g30190</b>	H <sup>+</sup> -ATPase 2, plasma membrane-type (AHA 2)
<b>At2g18960</b>	H <sup>+</sup> -ATPase 1, plasma membrane-type (AHA 1)
<b>multiple</b>	conserved in At5g28680, At4g39110, ...
<b>At2g26730</b>	RLK group LRR III (5 LRRs)
<b>At3g51740</b>	RLK group LRR III (1 LRR)
<b>At1g59870</b>	ABC transporter family protein (PDR8)
<b>At2g36910</b>	multidrug resistance P-glycoprotein (pgp1/ MDR1)
<b>At2g45140</b>	putative VAMP-associated protein
<b>At2g01980</b>	probable Na <sup>+</sup> /H <sup>+</sup> antiporter NHX7
<b>At2g27090</b>	putative bZIP
<b>At1g45688</b>	expressed protein
<b>At5g09960</b>	putative protein
<b>At1g64060</b>	Atrboh F (respiratory burst oxidase)
<b>At2g26730</b>	RLK group LRR III (5 LRRs)
<b>At2g16250</b>	RLK (11 LRRs)
<b>At1g59870</b>	ABC transporter family protein (PDR8)
<b>At1g59870</b>	ABC transporter family protein (PDR8)
<b>At1g78880</b>	expressed protein
<b>multiple</b>	conserved in At5g53320, At5g16590, ...
<b>multiple</b>	At3g50230 or At5g43020 or At5g67200
<b>At5g08080</b>	syntaxin SYP132
<b>At3g18524</b>	DNA mismatch repair protein MSH2; cont. DHHC zinc finger domain
<b>At4g24630</b>	DHHC-type zinc finger domain-containing protein
<b>At3g58690</b>	kinase group extensin
<b>At1g78880</b>	expressed protein
<b>At3g24180</b>	cont. Pfam: DUF608; sim. to bile acid beta-glucosidase
<b>At1g15400 or At1g80180</b>	expressed protein
<b>At1g57700</b>	cdc2-related kinase
<b>At3g26490</b>	unknown protein; cont. NPH3 dom
<b>At1g59870</b>	ABC transporter family protein (PDR8)
<b>At3g59110</b>	kinase group TAKL
<b>At3g62150</b>	multidrug resistance P-glycoprotein MDR17
<b>At3g61260</b>	remorin
<b>At5g24010</b>	RLK group CrRLK1L

# pS-[D,E]

A	G	I	Q	N	Q	S	D	L	S	D	D	D
V	G	E	D	I	R	S	D	S	E	D	D	D
Q	K	E	D	S	N	S	D	Y	D	Y	G	N
Q	K	L	G	A	A	S	D	S	D	D	N	E
N	D	P	E	Y	N	S	D	S	Q	S	Q	A
A	N	S	D	T	N	S	D	T	E	S	I	A
K	Q	D	N	S	G	T	E	S	D	A	D	D
V	N	S	G	T	G	T	D	D	D	A	N	E
C	F	R	R	D	G	S	E	S	P	S	S	E
F	I	S	P	F	P	S	D	R	F	V	S	P
G	S	P	N	P	V	S	D					
A	S	P	G	P	L	S	D					
S	N	G	S	P	V	S	D	R	A	G	L	Q
D	D	P	S	K	G	S	E	G	Q	T	P	P
D	G	L	R	Q	S	S	D	D	P	S	K	G
T	I	K	E	V	L	S	D	V	D	S	D	N
A	P	I	R	V	L	S	D	V	P	K	E	N
T	R	K	R	T	L	S	D	P	F	S	N	G
V	S	S	S	R	L	S	D	G	S	F	D	N
E	H	R	V	V	F	S	D	R	V	S	S	G
S	R	R	R	Q	S	S	E	I	V	P	E	P
G	S	Y	R	E	L	S	E	I	A	E	Q	A
R	S	L	S	E	I	S	E	V	D	A	V	R
E	H	R	R	S	R	S	E	E	N	I	N	L
K	A	S	K	K	Q	S	D	S	E	E	T	S
V	D	S	E	S	V	S	E	A	G	D	I	G
S	V	Q	R	Q	N	S	E	N	V	L	I	D
R	N	V	I	V	N	S	D	T	L	G	E	K
K	K	T	G	G	N	T	E	T	E	T	E	E
N	T	A	D	S	A	T	D	D	D	R	S	R
I	H	D	E	S	S	T	D	N	E	R	E	S
A	A	R	G	G	I	S	D	E	F	S	R	S
R	S	D	S	F	A	S	E	I	I	K	A	P
V	S	T	Q	A	A	S	E	R	G	G	V	D
S	P	A	S	M	M	S	D	P	E	L	A	D
K	P	R	F	N	F	S	D	E	E	K	E	E
I	L	R	G	A	N	S	D	T	N	S	D	T
Q	N	Q	S	D	L	S	D	D	D	S	K	N

At4g05110	nucleoside transporter ENT6
At3g19260	longevity factor-like
At4g18760	LRR family
At1g34020	transporter-related (weak similarity to UDP-glucose transporter)
At3g25070	RIN 4
At5g47910	AtrbohD respiratory burst oxidase protein D
At5g43310	expressed protein; sim. to COP1-interacting protein 7
At5g54380	RLK group CrRLK1L
At1g25320	RLK group LRR III (7 LRRs)
At2g35350	PP2C
At3g02880	RLK group LRR III (5 LRRs)
At5g16590	RLK group LRR III (5 LRRs)
At1g23080	auxin efflux carrier, putative PIN7
At2g26730	RLK group LRR III (5 LRRs)
At2g26730	RLK group LRR III (5 LRRs)
At3g20410	CPK 9 (calcium-dependent kinase)
At3g51850	CPK 13
At1g33990	polyneuridine aldehyde esterase, putative
At1g59650	expressed protein (CW14)
multiple	kinase group TAKL (At1g01540 or At4g01330)
At2g16250	RLK (11 LRRs)
At4g30190	H <sup>+</sup> -ATPase 2, plasma membrane-type (AHA 2)
At1g56230	unknown protein
At3g26490	unknown protein; cont. NPH3 dom
At1g57700	cdc2-related kinase
At2g41705	cont. CRCB-like domain (possibly involved in chromosome condensation?)
At5g61740	ABC transporter ATH14
At4g00340	RLK group SD-2
At4g27500	proton pump interactor
At5g49720	cellulase KORRIGAN
At5g45420	put. Myb family protein; cont. 2TM, 2 SANT
At2g37050	RLK group LRR I (2 LRRs)
At3g53380	RLK L-lectin group
At5g05170	CesA3 cellulose synthase catalytic subunit
At5g02620	ankyrin - like protein
At3g28850	weak sim. to SH3-binding, Glu-rich protein and put. peptide transporter
At5g47910	AtrbohD respiratory burst oxidase protein D
At4g05110	nucleoside transporter ENT6

# pS-P MAPK/ cdc2-like sites

S	K	V	D	V	E	S	P	A	V	L	A	P	At2g45820	remorin
V	M	L	D	V	Y	S	P	D	R	L	A	G	At5g10020	RLK group LRR III (no LRR)
I	A	L	E	S	E	S	P	A	K	V	T	T	At3g61260	remorin
S	N	R	S	V	G	S	P	A	P	V	T	P	At5g12080	putative mechanosensitive ion channel
H	F	S	K	S	A	S	P	A	S	V	I	K	At2g02480	DNAPol III gamma-like
N	L	R	A	D	E	S	P	E	K	V	T	V	At3g25070	RIN 4
L	D	E	Q	E	Q	S	P	E	T	S	E	N	At1g47330	sim. to Mg/Co transporter; cont. DUF21
G	E	F	S	A	A	S	P	E	R	L	S	V	At5g05170	CesA3 cellulose synthase catalytic subunit
V	S	R	S	P	A	S	P	G	P	L	S	D	At5g16590	RLK group LRR III (5 LRRs)
R	R	D	G	S	E	S	P	S	S	E	N	L	At1g25320	RLK group LRR III (7 LRRs)
S	A	S	V	L	E	S	P	D	I	E	N	G	At3g54030	kinase group RLCK II (PlantsP annotation); cont. C-term. TPR
D	G	S	S	L	D	S	P	A	E	T	R	S	At5g18610	kinase group RLCK VII
R	S	G	L	F	M	S	P	I	E	R	G	A	At2g35350	PP2C
N	S	G	S	M	A	S	P	P	V	P	E	G	At2g28070	ABC transporter WBC3
F	E	D	Q	P	G	S	P	E	S	L	A	T	At1g27460	cont. 4 TPR; sim. to <i>Zea Mays</i> MPCBP
S	L	E	G	V	G	S	P	E	S	S	S	S	At5g13290	kinase
V	W	G	S	N	G	S	P	V	S	D	R	A	At1g23080	auxin efflux carrier, putative PIN7
A	S	S	P	A	R	S	P	R	R	P	V	Y	At1g45688	expressed protein
A	S	N	S	R	L	S	P	L	P	P	E	P	At1g61250	secretory carrier membrane protein
R	N	T	G	R	V	S	P	A	V	D	P	P	At1g15400 or At1g80180	expressed protein
P	A	V	D	P	P	S	P	R	L	S	A	F	At1g15400 or At1g80180	expressed protein
A	T	P	R	V	S	T	P	E	I	L	T	P	At1g47670	put. Lys/His transporter
A	P	S	A	S	S	T	P	E	S	Y	S	K	At4g01410	harpin-induced protein 1 family (HIN1)
K	P	V	S	A	S	S	P	E	K	A	I	L	At3g61670	unknown protein; cont. coiled-coil dom.
S	Y	V	N	E	Y	S	P	S	A	V	K	A	At3g17840	RLK group LRR III (5 LRRs)
E	P	D	Q	I	L	S	P	R	R	S	L	E	At1g57990	put. purine permease
A	S	A	A	I	A	T	P	P	I	S	K	E	At1g01540	TAK1 (kinase group TAKL)
E	S	A	L	L	K	S	P	S	P	D	N	N	At1g19870	unknown protein, contains IQ calmodulin binding motif
L	P	K	I	Q	N	S	P	D	N	P	T	S	At2g27060	RLK group LRR III (16 LRRs)
G	E	L	G	E	L	S	P	D	I	R	A	T	At3g18524	DNA mismatch repair protein MSH2; cont. DHHC zinc finger domain
N	I	A	G	G	S	S	P	T	I	Q	S	N	At2g01210	RLK group LRR III (7 LRRs)
P	V	Y	Y	V	Q	S	P	S	R	D	S	H	At1g45688	expressed protein
G	R	S	Y	T	P	S	P	P	R	G	Y	G	At1g55310 or At3g13570	arginine/serine-rich splicing factor SCL30a or 33
E	I	R	V	E	Q	S	P	V	G	E	D	F	At2g36570	RLK group LRR III (5 LRRs)
S	T	F	I	S	I	S	P	S	M	S	P	K	At3g25500	formin homology 2 (FH2) domain-containing protein
H	T	M	V	Y	R	S	P	Q	M	K	R	V	At5g37900	putative protein; TRAF domain-like & C2H2 zinc finger