Figure 2.

CPK1	BICNTCVGPSRNGFLQSVSAAMWRPRDGDDSASMSNGDIASEAVSGELRS-RLSDEVQ	N 57
CPK1 CPK2		
CPK2		
CPK3 CPK4		3 40
CPK5	IIAQEFS	
CPK6	TTDQDFS	
CPK7	NEYATTD	
CPK8	BAYTTNG	
CPK9	DPPSYTP	
CPK10	FAG-DFT	R 39
CPK11		
CPK12		
CPK13	AGG	K 34
CPK14	KQKKGFKLPNPFSNEYGNHH	
CPK15	HVSRDVL	K 39
CPK16	MCLCFSSAAKSSGHNRSSRNPHPHPPLTVVKSRPPRSPCSFMAVTIQKDHRTQPRRN	A 58
CPK17	ASNAANSTGPT.	A 35
CPK18	PROFESSION	K 40
CPK19	ITPKEQP	R 39
CPK20	WGNTCVGPNLNPNGFLQSVSAAVWRNQKPDDSIKSSKDESSRKKNDKSVNGDDSI	N 55
CPK21		E 32
CPK22	MGNCCGSKPLTASD	- 14
CPK23	BGGGERSIPIIPVQT	D 36
CPK24	MGSCVSSPLKGSPFGKRPVRRRHSSNSRTSSVPRFD	
CPK25	MENVCVHMVNNCVDTKSNSWVRPTDLIMDHPLKPQLQDKPPQPMLMNKDDDKTKLND	
CPK26		
CPK27	ME-CFSSKELQQS	- 12
CPK28	KAAP-TP	
CPK29	MLONOHKTTKNORNKNIGTKYFLRKKIMCFCFSKFGKSQTHEIPISSSSDSSPPHHYOP	
CPK30		-
CPK31		
CPK31 CPK32		
CPK32 CPK33		
CPK33		
CPK34	PENGPENGGGGVG-A	A 30

CPK1	KPPEQVTMPKPGTDVETKDREIRTESKET	
CPK2	KPPEPITMPSSKTNPETKLKPDLEIQPEEKKEKVLAEETKQKVVPEESKQEVPPEESKREVVVQPESAKPETKSESKPETTKPET SGTVGSSGSGTGGSRS	
CPK3	SGTVGSSGSGTGGSRS	56
CPK4		-
CPK5	DNNSNNNSKDPALVIPLR	70
CPK6	QNTNPALVI PVK	58
CPK7	SGAG	41
CPK8	SGTG	39
CPK9	ARTTQQPEKPGSVNSQPPPWRA	61
CPK10	SPAPIRV	46
CPK11		-
CPK12		
CPK13	KSAPIR	40
CPK14	G	36
CPK15	PQKPPSPQIPTTQSNHHHQQESKPVNQQI	69
CPK16	TAKKTPTRHTPPHGKVREKVIS	80
CPK17	EASVPQSKHAPPSPPP	51
CPK18	NTKKIQLRHQG	51
CPK19	QRQPAPRAKFQIVVQPHKLPLPLPQP	65
CPK20	GHVSSTVDPAPSTLPTPSEPPPKPTPPPPVKMANEEPPPKPEPPPKP	90
CPK21	HRKPQTPTPKPMTQPIHQQ	51
CPK22		
CPK23	HRKPQIPSP	45
CPK24	STNLSRRL	45
CPK25	HGDPKLLEGKEKPAQKQTSQ	88
CPK26		-
CPK27		-
CPK28	DTKASTKRRTG	42
CPK29	GQT SN PT SN PQ PK PK PA PP	89
CPK30		45
CPK31		-
CPK32	GGDGGGR P	45
CPK33	-THQDPSKISTGTNQPPPWRN	51
CPK34	EASVRASKHPDASPD	46

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Kinase Domain

CPK1	KPESKPDPPAKPKK-PKHMKRVSSAGLRTESVLORKTENFKEFYSLGRKLCOCOEGTFLOVEKTIGKEFACKSTAKRKLLTDE 191	
CPK2	TSETKPETKAEPOK-PKHMRRVSSAGLRTESVLORKTENFKEFYSLGRKLCOCOFGTFLCLEKGTGNEYACKSISKRKLLTDED 227	
CPK3	TTSTQONGRILGRPMEEVRRTYEFGRELCRCOECVTYLVTHKEIKQOVACKSIPTRRLVHKDD 119	
CPK4	ME-KPNPRRPSNSVLPYETPRLRDHYLLGKKLCOGOFGTTYLCTEKSSSANYACKSIPKRKLVCRED 66	
CPK5	EPIMRRNPDNQAYYVLGHKTPNIRDIYTLSBKLGQCQFCTYLCTEIASGVDYACKSISKRKLISKED 138	
CPK6	EPIMRRNVDNQSYYVLGHKTPNTRDLYTLSSKLGQGOPCTTYLCTDIARGVDYACKSISKRKLISKED 126	
CPK7	FKLSVIKOPTGHDISLOYDLGREVGRGEPGITYLCTDKEIGEKYACKSISKKKURTAVD 100	
CPK8	FKLSVLKDPTGHDISLMYDLGRBVGRGEFGTTYLCTDIKTGEKYACKSISKKKLRTAVD 98	
CPK9	AAAAPGLSPKTTTKSNSILENAFEDVKLFYTLGKELGRGOFGVTYLCTENSTGKKYACKSISKKELVTKAD 132	
CPK10	EKDVIPMSNQTQISDKYILGEBLERGITYLCTDRETHEALACKSTSKRKURTAVD 104	
CPK11	GORDENE AND ALL AND A CONTRACT A CONTRACT AND	
CPK12	MANKPRTRWLPYKTKNVEDNYFLCQVLCOGOFGTFFLCTHKOTGOKLACKSIPKRKLLCQED 63	
CPK13	VISDVPKENIEDRYLIDRELGREEFGVTYLCIERSSRDLLACKSISKRKLRIAVD 95	
CPK14		
CPK15	EKKHVLTQPLKPIVFRETETILGKPFBEIRKLYTLGKELGRGOFGITYTCKENSTGNTYACKSILKRKLTRKOD 143	
CPK16	NNGRRHGETIPYGKRVDFGYAKDFDHRYTIGKL <mark>LG</mark> HGOFGYRYVATDKKTGDRVAVKK <mark>T</mark> DKAKMTIPIA 149	
CPK17	ATKOGPIGPVLGRPMEDVKASYSLGKELGRODGVTHLCTOKADGHOFACKTAKKLVNKED 114	
CPK18	GIPYGKRIDFGYAKDFDNRYIGKLGHGOFGFTYVATDNNNGNRVAVKRIDKAKNTOPIE 112	
CPK19	QEKQKLINHQKQSTLQQPEPILGRPFEDIKEKYSLGRELGRGOFGITYICTEISSGKNFACKSTLKRKLIRTKI 139	
CPK20	ITENKEDPNSKPOKKEAHMKRMASAGLOIDSVLGRKTENIKDIYSVGRKLGOGOFGTTFLCVDKKIGKEFACKITAKRKLTTPED 175	
CPK21	ISTPSSNPVSVRDPDTILGKPFEDIRKFYSLGKELGRGOFGITYMCKEIGTGNTYACKSILKRKLISKOD 121	
CPK22	TVSDQKQETILGKPLEDIKKHYSFEDELGKENEGTYLCKENSIGKSYACKSIPKRTLSSEEE 77	
CPK23	SIPISVRDPETILGKPFEDIRKFYSLGRELGRCGLCITYMCKEIGTCNIYACKSILKRKLISELG 110	
CPK24	IFQPPSRVIPEPIGDGIHLKYDLGKELGRGEFGVTHECIEISIRERFACKRISKEKURTEID 107	
CPK25	EYKKRAIACANSKRKAHNVRRIMSAGLQAESVIKTKTGHIKEYNNLCSKIGHGOFGTFVCVEKGTGEEYACKSIPKRKEENEED 173	
CPK26	MKHSGGNQACYVLGQKTPSIRDLYSLCHKLGOGOFCTTYMCKEISTGREYACKSITKRKUISKED 65	
CPK27	CRTLEKPLVDITKINILEEBLGRENEGLTRK_VEKSIGKTEAGKTILETKLKDEEC 69	
CPK28	SIPCGKRTDFGYSKDFHDHYTIGKLIGHCOFGYTYVAIHRPNGDRVAVKRUDKSKMVLPIA 103	
CPK29	STSSGSQIGPILNRPMIDISALADIHKELGROPFITAKATOKSNGREYACKSISKRKUIRRKD 153	
CPK30	VIPMSHQSQISDKYILGRELGREGECITYLCTDRETREALACKSISKRKLRTAVD 100	
CPK31	KTILEKPFVDIGKVYILCDELCOCOFCITRKOVEKTSCKTYACKIILKTNLKSRED 69	
CPK32	LKLIVUNDPTGREHESKYTLGRELGRGEFGVTYLCTDKENDDVFACKSILKKKLRTAVD 104	
CPK33	PAKHSGAAAILEKPYEDVKLFYTLSKELGRGOFGVTYLCTEKSTGKRFACKSISKKKLVTKGD 114	
CPK34	ATKQGPIGPVLGRPMEDVKSSYTLGKELGRODGVTHLCTOKATGLQFACKTAKKEVNKED 109	
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• ATP Binding

Kinase Domain

CPK1	VEDVERBIOIMHHLAGHPNVISIKGA	TRD DIAL TIME CO	AGGETEDRITORG	HYTERKAARLTRAIN	GWEACHSLOWE 272
CPK1 CPK2	VEDVRREIGIMHHDAGH PNVISIKGA VEDVRREIOIMHHDAGH PNVISIKGA		the second se	HYTERKAAELARTIV	
CPK2 CPK3	IEDVRREVOIMHHLSGHRNIVDLKGA			LYSERAAADICROMV	
CPK3 CPK4	YEDVEREIOIMHHLSEHPNVVRIKGT		12 00000 DD 00000	CFSEREAAKIIIKTII	
			A DECEMBER OF A		
CPK5	VEDVRREIQIMHHLAGHGSIVTIKGA			HYSERKAAELTKIIV	
CPK6	VEDVRREIQIMHHLAGHKNIVTIKGA			HYSERKAAELTKIIV	
CPK7	IEDVRREVEIMKHMPKHPNVVSLKDS		The second se	HYTERAAAAVMKTIV	
CPK8	IEDVRREVEIMKHMPRHPNIVSLKDA			HYTERAAAAVMKTIL	
CPK9	KDDMRREIQIMQHLSGQPNIVEFKGA	MEDEKAVNLVMELC		HYTERAAASVCRQIV	
CPK10	IEDVRREVAIMSTLPEHPNVVKLKAS		EGGELFDRIVARG	HYTERAAAAWARTIA	EVVMMCHSNGVMH 185
CPK11	YEDVWREIQIMHHLSEHPNVVRIKGI			HFSEREAVKLIKTIL	
CPK12	YDDVLREIQIMHHLSEYPNVVRIESA			HYSEREAAKLIKTIV	
CPK13	IEDVKREVAIMKHLPKSSSIVTLKEA			HYTERAAAGVTKTIV	
CPK14	IEDVKREVEIMROMPEHPNIVTEKEI			HYTERAAASVIKTII	
CPK15	IDDVKREIQIMQYLSGQENIVEIKGA	YEDRQSIHLVMELC	GGSELFDRIIAQG	HYSEKAAAGVIRSVL	NVVQI <mark>CH</mark> FMGVIH 224
CPK16	VEDVKREVKILQALTGHENVVRFYNA	FEDKNSVYIVMELC	EGGELLDRILARKDS	RYSERDAAVVVRQML	KWAAECHLRGLVH 232
CPK17	IEDVRREVQIMHHLTGQPNIVELKGA	YEDKHSVHLVMELC	AGGELFDRIIAKG	HYSERAAASLLRTIV	QIVHTCHSMGVIH 195
CPK18	VEDVKREVKILQALGGHENVVGFHNA	FEDKTYIYIVMELC	DGGELLDRILARKDS	RYTEKDAAVVVROML	KMAAECHLRGLVH 195
CPK19	REDVRREIQIMHYLSGOPNIVEIKGA	MEDROSVHLVMELC	EGGELFDKITKRG	HYSEKAAAEIIRSVV	KVVQICHFMGVIH 220
CPK20	VEDVRREIQIMHHLSGHPNVIQIVGA	YEDAVAVHVVMEIC	AGGELFDRIIQRG	HYTEKKAAELARIIV	GVIEACHSLOVME 256
CPK21	KEDVKREIQIMQYLSGQPNIVEIKGA	MEDROSIHLVMELC	AGGELFDRIIAQG	HYSERAAAGTIRSIV	NVVQICHFMGVVH 202
CPK22	KEAVKTEIQIMDHVSGQPNIVQIKGS	YEDNNSIHIVMELC		YYSEKDAAGIFRSIV	NAMKICHSLDVVH 162
CPK23	REDVETEIOIMOHLSGOPNVVEIKGS	YEDRHSVHLVMELC	AGGELEDRI HAQE	HYSERAAAGTIKSIV	DVVQICHLNGVIH 191
CPK24	VEDVRREVEIMRCLPKHPNIVSFREA	FEDKDAVYLVMEIC	DOODT BROTHING	HYTERAAASVAKTIL	EVVKVCHENGVIN 188
CPK25	VEDVRREIEIMKHLLGQPNVISIKGA	YEDSVAVHMVMELC	RGGELFDRIVERG	HYTERAAASVAKTIL HYSERKAAHLAKVIL	GVVQTCHSLGVMH 254
CPK26	VEDVEREIOIMHHLAGYKNIVTIKGA	YEDPLYVHIVMELC	SGGELFDRIIORG	HYSERKAAELIKIIV	GVVEACHSLOWNH 146
CPK27	EEDVKREIRIMKOLSGEPNIVEFRNA	YEDKDSVHIVMEYC	GGGELYDKILALYDVGK	SYSEKEAAGIIRSIV	
CPK28	VEDVKREVQILIALSGHENVVQFHNA	FEDDDYVYIVMELC	Concerning and the second	RYSEKDAAVVVROML	and the second sec
CPK29	IEDVRREVMILQHLTGQPNIVEFRGA			SYSEKEAANIFROIV	and an and a second sec
CPK30	VEDVEREVTIMSTLPEHENVVKLKAT		The second se	HYTERAAATVARTIA	AND A REAL PROPERTY AND A
CPK31	E AVKREIRIMKHLSGEPNIVEFNKA		the second se	SYSEKEAVEIIRPIV	
CPK32	IEDVEREVEIMRHMPEHPNVVTLKET			HYTERAAAAVTKTIM	NUMBER OF TAXABLE PARTY OF TAXABLE PARTY.
CPK33	KEDMERETOIMOHLSGOPNIVEFEGA	the second se		HYSERAAASWCROIV	
CPK34	I DEVER EVOLMHHUTGOPNIMELKGA			HYSERAAASLLRTIV	
01101	* *	** ** *	* ** *	* *	**

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Figure 2.

Kinase Domain

CPK1	RDLKPENFLFVSKHED-SLLKTIDFGISMEF	KPDDVETDVVGSPYYVAPEVLRKR	GPEADVWSAGVIVYILLSGVPPFWAETEQ 356
CPK2		KPDEVETDVVGSPYYVAPEVLRKRY	GPESDVWSAGVIVYILLSGVPPFWAETEQ 392
CPK3	RDLKPENFLFLSKDEN-SPLKATDFGLSVFF	KPEDKEKDLVGSAYYVAPEVLKRNY	CEPEADIWSAGVILYILLSGVEPFWGENET 284
CPK4	RDLKPENFLFDSPSDD-AKLKATDFGLSVFY	KPGQYLYDVVGSPYYVAPEVLKKC	GPEIDVWSAGVILYILLSGVPPFWAETES 231
CPK5		KPGQIFTDVVGSPYYVAPEVLLKRY	GPEADVWTAGVILYILLSGVEPFWAETQQ 303
CPK6	RDLKPENFLLVNKDDD-FSLKAIDFGLSVFF	KPGQIEKDVVGSPYYVAPEVLLKH	GPEADVWTAGVILYILLSGVPPFWAETQQ 291
CPK7	RDLKPENFLFANKKET-SALKAIDFGLSVEF	KPCEQENELVGSPYYMAPEVLRRNY	GPEIDVWSAGVILYILLCGVPPFWAETEQ 265
CPK8	RDLKPENFLFANKKET-SALKAIDFGLSVEF	KPCEGENEIVGSPYYMAPEVLRENY	GPEVDIWSAGVILYILLCEVPPFWARTEQ 263
CPK9	RDLKPENFLLSSKDEK-ALIKATDFGLSVFI		CKEVDIWSAGIILYILLSGVEPFMAETEK 297
CPK10	RDLKPENFLFANKKEN-SPLKAIDFGLSVFF RDLKPENFLFDSPKDD-AKLKATDFGLSVFY	KPEDKETEIVGSPYYMAPEVLKRD KPEOYLYDVVGSPYYVAPEVLKRC	GPGVDVWSAGVIIYILLCGVPPFWABTEQ 269 GPBIDVWSAGVILYILLSGVPPFWABTES 232
CPK11 CPK12		KPEQYLYDVVGSPYYVAPEVLKKC: TPEEAESELVGSAYYVAPEVLHKH:	GPEIDVWSAGVILYILLSGVPPFWARTES 232 GPECDVWSAGVILYILLCGFPPFWARSEI 228
CPK12 CPK13	RDLKPENFLFANKKEN-SPLKAIDFGLSIFF	KPCEKESETVGSPYYMAPEVLKEN	CPRIDIWSAGVILYILLCGVEPEWAPSEQ 260
CPK13 CPK14		KPCERFNETVGSPYYMAPEVLR S	COBIDIWSAGVILIILLOGVEPFWAETEH 260
CPK15	RDLKPENFLLASTDEN-AMLKATDFGLSVFI		CKEIDIWSAGIILYILLCGVPPFWSETEK 308
CPK16	RDMKPENFLFKSTEED-SPLKATDFGLSDPI	KPCKKFHDIVGSAYYVAPEVLKRRS	
CPK17	RDLKPENFLLLNKDEN-SPLKATDFGLSVEY		GPEADIWSIGVMLYILLCGVPPFWAESEN 279
CPK18	RDMKPENFLFKSTEEG-SSLKATDFGLSDFI	KPGVK-QDIVGSAYYVAPEVLKERS	SCPESDVWSIGVITYILLCGRRPFMDKTOD 279
CPK19	RDLKPENFLLSSKDEASSMLKATDFGVSVFI	EECKVYEDIVGSAYYVAPEVLKRNY	CKAIDIWSAGVILYILLCGNEPFWAETDK 305
CPK20	RDLKPENFLFVSGDEE-AALKTIDFGLSVFF	KPCETFTDVVGSPYYVAPEVLRKH	SHECDVWSAGVIIYILLSGVPPFWDETEQ 340
CPK21	RDLKPENFLLSSKEEN-AMLKATDFGLSVFI		CEKEIDIWSAGVILYILLSGVEPFWAENEK 286
CPK22	RDLKPENFLFSSKDEN-AMLKAIDFGCSVYI		CEKEIDIWSAGVILYILLSGVEPFQTGIES 246
CPK23	RDLKPENFLFSSKEEN-AMLKVTDFGLSAFI		GKBIDIWSAGVILYILLCGVPPFWADNEE 275
CPK24	RDLKPENFLFSNGTET-AQLKAIDFGLSIFF		
CPK25		KPCENDTDVVGSPYYIAPEVLNKNY	GPEADIWSAGVMIYVLLSGSAPF GETEE 338
CPK26 CPK27		KPGQIFEDVVGSPYYVAPEVLLKHY EEGKVYQDLAGSDYYIAPEVLQGNY	
CPK27 CPK28		KPEKREHDI VGSAYYVAPEVLKERS	
CPK20	RDKREENFLEVSNEED-SPIKATDFGLSVFI		
CPK30			GREVDVWSAGVILYILLCGVPPFWAETEQ 265
CPK31	RDLKPENFLLSSTDKN-ATVKAIDFGCSVEI	E-CEVHRKFAGSAYYIAPEVLOGK	
CPK32		KPGERENEIVGSPYYMAPEVLKRNY	
CPK33	RDLKPENFLLSSKDEK-ALIKATDFGLSVFI	EEGRVYKDIVGSAYYVAPEVLKRRY	GKEIDIWSAGIILYILLSGVPPFWAETEK 279
CPK34	RDLKPENFLLLSKDEN-SPLKATDFGLSVEY	KPGEVEKDIVGSAYYIAPEVLREKI	GPEADIWSIGVMLYILLCGVEPFWARSEN 274
	** ***** * * *** *	** ** *****	* * * * * **
A	ctive Site		
		2	
	Kinase Do	omain	Autoinhibitory
0071			
CPK1	GIFEQVIHGDIDESSDFWESISES	AKDLVRKMLVRDPK <mark>K</mark> RLTAHQVLC-	HEWVQVDGVAPDKELDSAVLSRMKQESAM 433
CPK2	GIFEQVIHGDIDESSDEWESISES GIFEQVIHGDIDESSDEWESISES	AKDLVRKMLVRDPKKRLTAHQVLC- AKDLVRKMLVRDPKRRLTAHQVLC-	HENVQVDGVAP-KPLDSAVLSRMKQESAM 433 HENVQIDGVAP-KPLDSAVLSRMKQESAM 469
CPK2 CPK3	GIFEQVIHGDLDESSDPWESISES GIFEQVIHGDLDESSDPWESISES GIFDAILQGQLDESADPWEALSDG	AKDIVRKMIVRDPKKRITAHQVDC- AKDIVRKMIVRDPKRRITAHQVDC- AKDIV <u>RKMIKYD</u> PKDRITAAFV <u>D</u> N-	HEWVQVDGVAPDKFHDSAVLSRMKQFSAT 433 HEWVQIDGVAPDKFHDSAVLSRMKQFSAT 469 HEWIREDGEASDKFHDNAVLSRMKQFRAT 361
CPK2 CPK3 CPK4	GIFEQVIHGDLDESSDPWPSISES GIFEQVIHGDLDESSDPWPSISES GIFDAIIQGQLDESADPWPALSDG GIFRQILQGKIDEKSDPWPIISEG	AKDLVRKMLVRDPRKRITAHQVLC- AKDLVRKMLVRDPRRRITAHQVLC- AKDLVRKMLKYDPRDRITAHQVLC- AKDLVRKMLKYDPRDRITAASVLM- AKDLTYKMLDRSPRKRISAHBALC-	HENVQVDGVAP-KPLDSAVLSRMKQESAM 433 HENVQIDGVAP-KPLDSAVLSRMKQESAM 469
CPK2 CPK3	GIFEQVTHGDLDESSDPWESISES GIFEQVTHGDLDESSDPWESISES GIFDAILQGQLDESADPWEALSDG GIFRQILQGKIDESSDPWEVISDS GIFDAVTKGYIDESSDPWEVISDS	AKDLVRKMLVRDPRKRITAHQVLC- AKDLVRKMLVRDPRRRITAHQVLC- AKDLVRKMLKYDPRDRITAHQVLC- AKDLVRKMLKYDPRDRITAASVLM- AKDLTYKMLDRSPRKRISAHBALC-	HEWVQVDGVAPDKEDDSAVLSRMKOFSAV 433 HEWVQIDGVAPDKEDDSAVLSRMKOFSAV 469 HEWIREDCEASDKEDDNAVLSRMKOFRAV 361 HEWIVDEHAAPDKEDDPAVLSRLKOFSOM 308
CPK2 CPK3 CPK4 CPK5	GIFEQVTHGDLDESSDPWESISES GIFEQVTHGDLDESSDPWESISES GIFDAILQGQLDESADPWEALSDG GIFRQILQGKIDESSDPWEVISDS GIFDAVTKGYIDESSDPWEVISDS	AKDIVRKMIVRDPKKRITAHQVIC- AKDIVRKMIVRDPKRRITAHQVIC- AKDIVRKMIKYDPKDRITAASVID- AKDITRKMIDRSPKKRISAHFAHC- AKDITRKMISSKPABRITAHEVIR-	HEWVQVDGVAPDKEDDSAVLSRMKOFSAV 433 HEWVQIDGVAPDKEDDSAVLSRMKOFSAM 469 HEWIREDGEASDKEDDNAVLSRMKOFRAM 361 HEWIVDEHAAPDKEDDPAVLSRLKOFSQM 308 HEWICENGVAPDRALDPAVLSRLKOFSAM 380
CPK2 CPK3 CPK4 CPK5 CPK6	GIFEQVDHGDLDESSDPWESISES GIFEQVDHGDLDESSDPWESISES GIFDAILQGLDESSDPWESISES GIFRQILQGKIDESSDPWEALSDG GIFDAVTKGYDESSDPWEVISDS GIFDAVTKGYDESDPWEVISDS GVAQAITRSVIDEKRDPWERVSET	AKDIVEKMIVRDEEKRITAHQVDC- AKDIVEKMIVRDEERRITAHQVDC- AKDIVEKMIKYDEEDRITAASVD- AKDITYKMIDRSEEKRISAHEADC- AKDIIERMISSKEABRITAHEVDR- AKDIIERMISSSESBRITAHEVDR- AKDIVEKMIEBDEEKRITAAQVDB- AKDIVEKMIEBDEEKRISAAQVDB-	HEWVQVDGVAPDKEDDSAVLSRMKOFSAV 433 HEWVQIDGVAPDKEDDSAVLSRMKOFSAV 439 HEWIREDCEASDKEDDNAVLSRMKOFRAV 361 HEWIREDCEASDKEDDNAVLSRLKOFSOV 308 HEWICENGVAPDRADDPAVLSRLKOFSAV 380 HEWICENGVAPDRADDPAVLSRLKOFSAV 368 HEWICENGVAPDRADDPAVLSRLKOFSAV 368 HEWICENGVAPDRADDPAVLSRLKOFSV 342 HEWIQNAKKAPNVSIGETVKARLKOFSV 340
CPK2 CPK3 CPK4 CPK5 CPK6 CPK7 CPK8 CPK9	GIFEQVIHGDLDESSDPWESISES GIFEQVIHGDLDESSDPWESISES GIFDAILQGLDESADPWEALSDG GIFRQIIQGKIDESSDPWEVISDS GIFDAVIKGYIDESDPWEVISDS GVAQAILRSVIDEKRDPWERVSDS GVAQAILRSVIDEKRDPWERVSES GVAQAILSSVIDEKRDPWESISS	AKDIVRKMIVRDPKKRITAHOVIC- AKDIVRKMIVRDPKRRITAHOVIC- AKDIVRKMIKYDPKDRITAASVIN- AKDIVRKMIDRSPKRRISAHBADC- AKDIRKMISSKPABRITAHEVIR- AKDIVRKMIEPDPKRRISAAOVIE AKDIVRKMIEPDPKRRISAAOVIE AKDIVRMIEPDPKRRISAAOVIE AKDIVRMIEPDPKRRISAAOVIE	HEWVQVDGVAPDKETDSAVLSRMKOFSAV 433 HEWVQIDGVAPDKETDSAVLSRMKOFSAV 469 HEWIREDCEASDREIDNAVLSRMKOFRAV 361 HEWIREDCEASDREIDNAVLSRLKOFSOV 308 HEWICENGVAPDRAUDPAVLSRLKOFSAV 368 HEWICENGVAPDRAUDPAVLSRLKOFSAV 368 HTWILNAKKAPNVSIGETVKARLKOFSV 342 HSWIQNAKKAPNVSIGETVKARLKOFSV 342 HSWIQNAKKAPNSIGETVKARLKOFSV 340
CPK2 CPK3 CPK4 CPK5 CPK6 CPK7 CPK8 CPK9 CPK10	GIFEQVIHGDLDESSDPWESISES GIFEQVIHGDLDESSDPWESISES GIFDAILQGQLDESADPWEALSDG GIFRQIIQGKIDESDPWETISEG GIFDAVIKGYIDESDPWEVISDS GIFDAVIKGYIDEDTDPWEVISDS GVAQAIIRSVIDEKRDPWENSET GIFDAILSCHDESSPWESISS GVALAILEGHIDESSPWESISS	AKDIVRKMIVRDPKKRITAHQVIC- AKDIVRKMIVRDPKDRITAHQVIC- AKDIVRKMIKYDPKDRITAAEVID- AKDIVRKMIKYDPKDRITAAEVID- AKDIIRMISSKPAERITAHEVIR- AKDIVRKMIEPDPKRITAAQVIE- AKDIVRKMIEPDPKRITAAQVIE- AKDIVRKMIEPDPKRITAAQVIE- AKDIVRKMITADPKRITAAQVIE- AKDIVRKMITADPKRITAAQVIE-	HEWVQVDGVAPDKETDSAVLSRMKOFSAV 433 BEWVQIDGVAPDKETDSAVLSRMKOFSAV 469 HEWIREDGEASDKETDNAVLSRMKOFSAV 361 HEWIREDGEASDKETDNAVLSRIKOFSAV 308 HEWICENGVAPDRADDPAVLSRIKOFSAV 380 HEWICENGVAPDRADDPAVLSRIKOFSAV 368 HTWILDAKKAPNVSIGETVKARLKOFSV 342 HEWIREGGEASDKETDSAVLSRMKOFRAV 374 HEWIREGGEASDKETDSAVLSRMKOFRAV 374
CPK2 CPK3 CPK4 CPK5 CPK6 CPK7 CPK8 CPK9 CPK10 CPK11	GIFEQVTHGDLDESSDPWESISES GIFEQVTHGDLDESSDPWESISES GIFDAILQGQLDESADPWEALSDG GIFRQILQGKIDESDPWEVISDS GIFDAVLKGYIDESDPWEVISDS GVAQAILRSVIDEKRDPWEVISDS GVAQAILRSVIDEKRDPWESISS GVALAILRGVLDEKRDPWEQISES GVALAILGGHLDESSQPWESISS GVALQILQGKLDEKSDPWEVISE	AKDIVRKMIVRDFKKRITAHQVIC- AKDIVRKMIVRDFKRITAHQVIC- AKDIVRKMIVRDFKDRITAAEVIN- AKDITKMIDRSFKRISAHFAHC- AKDIIRKMICSSFSBRITAHEVIR- AKDIVRKMIEPDFKRITAAQVHE- AKDIVRKMIEPDFKRITAAQVHE- AKDIVRKMIEPDFKRISAAQVH- AKDIVRKMIEPDFKRISAAQVH- AKDIVRKMIEPDFKRISAAQVHA-	HEWVQVDGVAPDKETDSAVLSRMKOFSAV 433 HEWVQIDGVAPDKETDSAVLSRMKOFSAV 469 HEWIREDGEASDKETDSAVLSRMKOFSAV 469 HEWIVDEHAAPDKETDPAVLSRIKOFSAV 361 HEWIVDEHAAPDKETDPAVLSRIKOFSAV 380 HEWICENGVAPDRALDPAVLSRIKOFSAV 380 HEWICENGVAPDRALDPAVLSRIKOFSAV 368 HTWILNAKKAPNVSIGETVKARIKOFSV 342 HEWIQNAKKAPNVSIGETVKARIKOFSV 340 HEWIQNAKKAPNVEIGDIVKSRIKOFSAM 374 HEWIQNAKKAPNVEIGDIVKSRIKOFSAM 346 HEWIVDEQAAPDKELDPAVLSRIKOFSM 340
CPK2 CPK3 CPK4 CPK5 CPK6 CPK7 CPK8 CPK9 CPK10 CPK11 CPK12	GIFEQVIHGDLDESSDPWESISES GIFEQVIHGDLDESSDPWESISES GIFDAILQGLDESSDPWEALSDG GIFRAILQGLDESSDPWEALSDG GIFDAVIKGYIDESDPWEVISDS GIFDAVIKGYIDESDPWEVISDS GVAQAILRSVIDEKRDPWERVSET GIFDAILRSVIDEKRDPWERVSET GIFD	AKDIVEKMIVRDEKKRITAHOVDC- AKDIVEKMIVRDEKRITAHOVDC- AKDIVEKMIKYDERDRITAASVIM- AKDITYKMIDRSEKKRISAHEADC- AKDITEKMISSKEABRITAHEVMR- AKDITEKMICSSESBRITAHEVMR- AKDIVEKMIEEDEKKRISAAOVDE- AKDIVEKMIEDEEKRISAAOVDE- AKDIVEKMIEDEEKRISAAOVDE- AKDIVEKMIEDEETKRISAADVIO- AKDIVEKMIESSEKRISAADVIO- AKDIVEKMIESSEKRISAADVIO- AKDIVEKMIESSEKRISAADVIO-	HEWVQVDGVAPDKEDDSAWLSRMKOFSAU 433 HEWVQIDGVAPDKEDDSAVLSRMKOFSAU 469 HEWIREDGEASDKEDDNAVLSRMKOFSAU 361 HEWIVDEHAAPDKEDDPAVLSRIKOFSAU 380 HEWICENGVAPDRADDPAVLSRIKOFSAU 380 HEWICENGVAPDRADDPAVLSRIKOFSAU 340 HEWIREGGEASDKEDDSAVLSRMKOFRAU 340 HEWIREGGEASDKEDDSAVLSRMKOFRAU 346 HEWIVDAKKAPNVELGDIVRSRIKOFSOU 346 HEWIVDKVAPDKEDDCAVVSRIKNGSAU 305
CPK2 CPK3 CPK4 CPK5 CPK6 CPK7 CPK8 CPK9 CPK10 CPK11 CPK12 CPK13	GIFE OVD HGDLDE SSD PW PSI SES GIFE OVI HGDLDE SSD PW PSI SES GIFD OVI HGDLDE SSD PW PSI SES GIFD OVI HGDLDE SSD PW PSI SES GIFD OVI GGKIDE SSD PW PSI SES GIFD OVI GGKIDE SSD PW PSI SES GIFD AVI KGYIDE SSD PW PSI SDS GVAQ AVI KGYIDE SSD PW PSI SS GVAQ AI IRSVIDE KRD PW PSI SS GVAQ AI IRSVIDE KRD PW PSI SS GVAL AI IRSVIDE KRD PW PSI SS GVAL AI IRSVIDE KSD PW PI SSS GVAL AI IRSVIDE KSD PW PI SSS	AKDIVEKMIVRDEKKRITAHOVDC- AKDIVEKMIVRDEKRITAHOVDC- AKDIVEKMIKYDERDRITAHOVDC- AKDIVEKMIKYDERDRITAHOVD- AKDIVEKMICSSESERITAHEVDR- AKDIVEKMIESSESERITAHOVDE- AKDIVEKMIEDEFKRITAAOVDE AKDIVEKMIEDEFKRITAAOVDE- AKDIVEKMIESEKKITAAOVD- AKDIVEKMIESEKKITAHOVDC- AKDIVEKMIESEKKITAHOVDC- AKDIVEKMIESEKKITAHOVDC-	HEWVQVDGVAPDKEDDSAVLSRMKOFSAV 433 HEWVQIDGVAPDKEDDSAVLSRMKOFSAV 469 HEWIREDCEASDKEDDNAVLSRMKOFSAV 361 HEWIREDCEASDKEDDNAVLSRKKOFSAV 361 HEWICENGVAPDRADDPAVLSRLKOFSAV 380 HEWICENGVAPDRADDPAVLSRLKOFSAV 368 HEWICENGVAPDRADDPAVLSRLKOFSAV 368 HEWICENGVAPDRADDPAVLSRLKOFSAV 340 HEWIVDRVARDRVSIGETVKARLKOFSV 340 HEWIQNAKKAPNVSIGETVKARLKOFSV 340 HEWIVDRVARDREDDSAVLSRMKOFRAM 374 HEWIVDRVARDKEDDCAVVSRLKOFSAV 305 HEWIVDDKVAPDKEDDCAVVSRLKOFSAV 305
CPK2 CPK3 CPK4 CPK5 CPK6 CPK7 CPK8 CPK9 CPK10 CPK12 CPK13 CPK14	GIFEQVIHGDLDESSDPWESISES GIFEQVIHGDLDESSDPWESISES GIFDAILGQLDESSDPWEALEDG GIFRQIIQGKIDESDPWEVISDS GIFDAVIKGYIDESDPWEVISDS GVAQAILSVIDEKRDPWEVISDS GVAQAILSVIDEKRDPWESISS GVALAILEGHIDESQPWESISS GVALAILGKUDEKRDPWESISES GVAL	AKDIVRKMIVRDPKKRITAHOVIC- AKDIVRKMIVRDPKRITAHOVIC- AKDIVRKMIKYDPKRITAHOVIC- AKDIVRKMIKYDPKRITAHOVIC- AKDIVRKMICSSPEERITAHEVIR- AKDIVRKMIEPDPKRITAAOVIE- AKDIVRKMIEPDPKRITAAOVIE- AKDIVRKMIEPDPKRITAAOVIE- AKDIVRKMIERSPKRITAAOVIE- AKDIVRKMIERSPKRITAHOVIC- AKDITKMIERSPRKRITAHOVIC- AKDITKMIERSPRKRITAHOVIC- AKDITKMIEPSPRRITAHOVIC-	HEWVQVDGVAPDKETDSAVLSRMKOFSAV 433 HEWVQIDGVAPDKETDSAVLSRMKOFSAV 469 HEWIREDCEASDKETDNAVLSRMKOFSAV 469 HEWIREDCEASDKETDNAVLSRMKOFSAV 361 HEWIVDEHAAPDKETDPAVLSRIKOFSAV 368 HEWICENGVAPDRATDPAVLSRIKOFSAV 368 HEWICENGVAPDRATDPAVLSRIKOFSAV 368 HEWICENGVAPDRATDPAVLSRIKOFSAV 340 HEWICENGVAPDRATDPAVLSRIKOFSAV 340 HEWIQNAKKAPNVSIGETVKARIKOFSAV 340 HEWIQNAKKAPNVFIGDVKSRIKOFSAV 374 HEWIVDCAAPDKETDPAVLSRIKOFSAV 309 HEWIVDRAKAPNVFIGDVKSRIKOFSAV 305 HEWIVDAKKAPNVFIGDVKSRIKOFSAV 337
CPK2 CPK3 CPK4 CPK5 CPK6 CPK6 CPK7 CPK8 CPK9 CPK10 CPK11 CPK12 CPK13 CPK14 CPK15	GIFEOVTHGDLDESSDPWESISES GIFEOVTHGDLDESSDPWESISES GIFDATIQQLDESADPWEALSDG GIFROILQGKIDESSDPWEALSDG GIFDATIQQLDESADPWEALSDG GIFDATIQQLDESADPWEALSDG GIFDATIQQLDESADPWEALSDG GIFDATIRSVIDESDPWEALSDG GVAQATIRSVIDESDPWEALSDG GVAQATIRSVIDESCPWEALSGG GIFDATIRSVIDESCPWEALSGG GVAQATIRSVIDESCPWEALSGG GIFD	AKDIVEKMIVRDEKKRITAHOVDC- AKDIVEKMIVRDEKRRITAHOVDC- AKDIVEKMIKYDERDRITAHOVDC- AKDIVEKMIKYDERDRITAHOVDC- AKDIVEKMICSSESERITAHEVDR- AKDIVEKMIESDERKRITAHOVDC- AKDIVEKMIEDDEKRITAHOVDC- AKDIVEKMIEDDEKRITAHOVDC- AKDIVEKMIESDEKRITAHOVDC- AKDIVEKMIESDEKRITAHOVDC- AKDIVEKMIESDEKRITAHOVDC- AKDIVEKMIESDERRITAHOVDC- AKDIVEKMIESDERRITAHOVDC- AKDIVEKMIEDERRITAHOVDC- AKDIVEKMIEDERRITAHOVDC-	HEWIVQVDGVAPDKEDDSAWLSRMKOFSAV 433 HEWIVQIDGVAPDKEDDSAVLSRMKOFSAV 469 HEWIREDCEASDKEDDNAVLSRMKOFSAV 361 HEWIREDCEASDKEDDNAVLSRMKOFSAV 361 HEWICENCVAPDRADDPAVLSRLKOFSAV 368 HEWICENCVAPDRADDPAVLSRLKOFSAV 368 HTWILDNAKKAPNVSIGETVKARLKOFSAV 342 HEWIQNAKKAPNVSIGETVKARLKOFSAV 340 HEWIQNAKKAPNVSIGETVKARLKOFSAV 346 HEWIQNAKKAPNVSIGETVKARLKOFSAV 346 HEWIQNAKKAPNVSIGETVKARLKOFSAV 346 HEWIQNAKKAPNVSIGETVKARLKOFSAV 346 HEWIVDEQAAPDKEDDPAVLSRLKOFSAV 346 HEWIVDEQAAPDKEDDPAVLSRLKOFSAV 309 HEWIVDDKVAPDKEDDCAVSRLKOFSAV 337 HEWIQNAKKAPNVSIGETVRARLKOFSV 337 HEWIQNAKKAPNVSIGETVRARLKOFSV 337
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	Domain	Calmodulin-Like Domain		
CPK1	NKFKKMALRVI	AESLSEBBTAGLKEMENNITDARKSCOLTPEELKAGUKRVG-ANTKESELLDIMQA-ADVINSGTLDYKEFTAAR 516 AESLSEBETAGLKOMSKMIDARNSCOLTPEELKAGUKRVG-ANUKESELLDIMQA-ADVINSGTLDYKEFTAAR 552 AENLSEBETIGLKEMEKSLDTINNGIVTLEELRIGUPKLG-SKISEAELROIMEA-ADMIGDOSIDYLEFISAT 444 AERLSEBETIGLKELFKMIDTINSGTLIPEELKAGUKRVG-SEIMESEIKSIMDA-ADTINSGTLDYGEFTAAR 391		
CPK2 CPK3	NKEKKMALEVI	AESLSEBETAGLKOMSKMIDADNSGOIDFEELKAGUKRVG-ANDKESEILDIMQA-ADVDNSGTIDYKEFTAAT 552 Aenlsebetiglkemsksldtinngivileslitgipklg-skiseAbirolmea-admigdgsidyleftsat 444		
CPK4	NKIKKMALRVI	AERLSEPEIGGLKELEKMIDTONSCTITFEELKAGUKRVC-SEIMESEUKSIMDA-ADIONSCTIDVGEFLAAT 391		
CPK5	NK <mark>IK</mark> KMALKVI	AESLSEBBLAGLREMEQANDIENSCALTEDELKAGURKYS-STUKDIETHDIMDA-ADVENSGILDYSEELAAT 463		
CPK6	NKIKKMALKVI	AESLOEDERAGLAAMSEANDTENSCALDEDELXAGURRYC-STEKDTEURDIMEA-ADVENSCTLDYSEETAAF 451 Arus garraacteraacterationer wroten articles of a dependent wroten by company settions 425		
CPK7 CPK8	NKUKKRALEVI	AERLESEELGGLKELEKMEDTENSGTETFEBLAACHKWC-SEDMESETKSIMDA-ADIDNSCTEDYGEFLAAT 391 AESLESEELAGLREMPOAMDTENSGATTFEDELKAGURKYC-STUKDTEHHDIMDA-ADVUNSCTEDYSEFIAAT 463 AESLESEELAGLRAMPEANDTENSGATTFEDELKAGURKYC-STUKDTEHRDIMEA-ADVUNSCTEDYSEFIAAT 451 AEHLEVEBAAGIKEAFEMMUNKRGKINIEBLKYGUCKAC-QOTADTDIDIDIMEA-TDVDGDCTENYSEFVAVS 425 AEHLEVEBVAGIKEAFEMMUNKRGKINIEBLKYGUCKAC-QOTADTDIDIIMEA-TDVDGDCTENYSEFVAVS 425 AEHLEVEBVAGIKEAFEMMUNKRGKINIEBLKYGUKAC-QOTADTDIDIIMEA-TDVDGDCTENYSEFVAVS 425 AEHLEVEBVAGIKEAFEMMUSKKTGKINIEBLKYGUKAC-QOTADTDIDIIMEA-ADVUGDCTENYSEFVAVS 424 AENIDTEEIQGLKAMPANIDTENSGTITYEBLKEGUARLC-SKITEAEVKQIMDA-ADVUGNCSIDYIEFITAT 457		
CPK9	NKIKKIALKVI	AENIDIBETOGIKAMEANIDIDNSETITYEELKEELAKLE-SKETEAEVKOLMDA-ADVDGNESIDYIEFITAT 457		
CPK10	NR <mark>F</mark> KK <mark>KV</mark> LRVI	AEHLSIDEVEVIXNMESIMDDIKDEKITYPELXACHOKVE-SONGEPENKMEMEV-ADVIGNEFLDYGBEVAVI 429		
CPK11 CPK12	NKIKKMALEVI	AERLSEREIGGLKELEKMIDTINSGTINFEELKAGUKRVG-SELMESEIKSLMDA-ADIINSGTIDYGEELAAT 392 AERLSEREIGGLKELEKMIDTIKSGTINFEELNDEMRRVG-SELMESEIGELLRA-ADVDESGTIDYGEFLAAT 388		
CPK13	NR <mark>FKRK</mark> ALRVI	AERLSBEBIGGLKELEKMIDTDKSGTINFESLKDGWREVG-SEDMESEDOELLRA-ADVDESGTDYGSFLAAT 388 AEFLSTEEVEDIKVMENKMDTDNDGIVSIEBLKAGURDFS-TODAESENOMDIEA-VDTKGKGTLDYGSFLAAT 388 AEFLSVEETSCIKERSOVMDTSNRGKITITSLGIGLOKLG-IVVPODDUQILMDA-GDVDKDGYLDVNSFVAIS 420 AESLSBEBIKGLKTMFANNDTKSGTINFESLKGGSKGG-TRUSEYEVOOLMEA-ADVDGNGTDYIEFISAT 467 ATTLDEEELADLRDOEDAIDVOKNGVISLEEMROADAKDHPWKUKDARVAEILOA-IDSNTDGEVDFGEFVAAA 477 AGCLSBEBIKGLKEMFKGMDTDSSGTITLEELROGLAKOG-TRUSEYEVOOLMEA-ADADGNGTIDYGSFIAAT 439 AKTINEDBIDDLRDOEDAIDVOKNGVISLEEMROADAKDHPWKUKDARVAEILOA-IDSNTDGEVDFGEFVAAA 477 AGCLSBEBIKGLKEMFKGMDTDSSGTITLEELROGLAKOG-TRUSEYEVOOLMEA-ADADGNGTIDYGSFIAAT 439 AKTINEDBIDDLRDOEDAIDICKNGSISLEEMROADAKDVPWKUKDARVABILOA-NDSNTDGLVDFTBFVAA 440 AONUKEBIKGLKTMFANNDTDKSGTITYDELKSGTEKLG-SRUTETEWKOLLEA-ADVDGNGTIDYGFIAAT 465 AESLSBEBIKGLKTMFANNDTDKSGTITYBELKKGUDRVC-ADUKDSBILGIMQA-ADVDGNGTIDYGFIAAT 500 ABSLSBEBIKGLKTMFANIDTDKSGTITYBELKKGUDRKG-SRUSETEKKOLMEA-ADVDGNCTIDYJEFISAT 445		
CPK14	NKLKKRALRVI	ABHLSVEBTSCIKEREQVWDTSNREKITITELGIGDQKLG-IVWPQDDIQILMDA-GDVDKDCYLDVNEFVAIS 420		
CPK15 CPK16	SELKOPALEAL	AESLEEPEIKGLEIMBANNDIDKSGIITYEELKNGLAKLG-SKUTEAEVKOLMEA-ADVDGNGIIDYIEFISAT 467 ATTLDEEELADLRDOSDAIDVEKNGVISLEEMROALAKDHPWKUKDARWAEILOA-IDSNIDGEVDEGEEVAAA 477		
CPK10 CPK17	NNFKKVALRVI	AGCLSEBELMGLKEMEKGNDTDSSCTITLEELROCHAKQC-TRUSEYEVQQLMEA-ADADGNCTIDYGEFIAAT 439		
CPK18	SRLKQIALRAL	AKTINEDBLDDLRDQBDAIDIBKNESISLEEMRQAHARDVPWKEKDARVABILQ2-NDSNIDELVDBIBEVVAA 440		
CPK19 CPK20	NKEKKEAFKFI	AQNIKEEBIKGIKTMBANMDTOKSGTITYDBIKSGIEKIG-SRITETEWKQILLED-ADVDGNGTIDYIBFISAN 465 AESIGEBETAGIKEMSKMIDTONSCHITIEBIKKGIDRVC-ADUKDSBIIGIMQA-ADIONSCTIDYGEFIAAM 500		
CPK20 CPK21	NKIKKLALKVI	AESLSEBELKGLATMEANIDICKSCILTYEELATCITRIC-SRUSETEWKOLMEA-ADVIGNCTIDYBEISAA 445		
CPK22	NK <mark>IK</mark> KLALKVI	AEGLSEBEIKGINTMEENVIDMUKSESITYEELSMEINRHE-SKUSETEVKOLMEA-ADVUGNETIDYIEFISAT 411		
CPK23	NKEKKEALKVS	AEGLSEEEIKGLWIMEENMIMEKSGSITYEELMGINRHG-SKUSEIEVKOLMEA-ADVIGNETIDYIEFISAT 411 AVSLSEEEIKGLWIIFANMITURSGIIYEOLQIGISRIR-SRUSEIEVOOLVEA-SDVIGNETIDYYEFISAT 434 ADNLENEEIAAIVOMEQIMITIKNGHLIFEELRIGIKKIG-QVVPDGDVKMLMDA-ADIGSCMESCDEFVIS 432		
CPK24 CPK25	DKEKKMALRVI	ADNLEMBETAATVOMEOTNDERKSHLIPEELROETKKIG-OVOPDGOVKNIMDA-ADTEGNOMESCOEFVIJE 432 AERLEBEETHELRETEKTIDSGKSGRVTYKELKNGUEREN-TNUDNSLMOIPTDVHLEDTVOVNEFIEAT 499 AESLEBEETKGLKEMEKKANDTONSGATTEDELKAGURKYG-SNUKKENGONEA-ADTGONGNETIDDEFTSAT 390 AANLEBEETKGLKTLETNIDTEKSGNITLEELKIGITRLG-SNUKKENGONEA-ADTGONGNETIDDEFTSAT 390 ASTLDEAETSDLROOPDAIDVEKNOVISLEEMROADAKDLPWKIKKDSRVAETLEA-IDSNIDELVDETSEVAAA 431 AENLEBEETKGLKOTEKNMDTEESGTINEDELENGINEAKLGESKITESETKGLMEA-ADTVOKSGTIDYIBEVTAT 477 ABHLSTEETKGLKOTEKNMDTEESGTINEDELENGURKVG-SOUGEPEKILMEV-ADVOKSGTIDYIBEVAAT 477 ABHLSTEETKGLKOTEKNMDTEESGTINEDELENGURKVG-SNUGEPEKILMEV-ADVOKSGTIDYISEVAAT 477 ABHLSTEETKGLKOTEKNMDTEESGTINEDELENGURKVG-SNUGEPEKILMEV-ADVOKSGTIDYISEVAAT 477 ABHLSTEETKGLKOTEKNMDTEESGTINEDELENGURKVG-SNUGEPEKILMEV-ADVOKSGTIDYISEVAAT 477 ABHLSTEETKGLKOTEKNMDTEESGTINEDELENGURKVG-SNUGEPIKILMEV-ADVOKSGTIDYISEVAAT 477 ABHLSDEBKGLKOTEKNMDTISSGTINEELKGTAKLG-SNUKEWERDIMEA-ADVOKSGTIDYISEVAAT 477 ABHLSDEBKGLKOMENDINGKISTIDELKIGUCKLC-HATPODDIDIIMDA-GDIDROEVDCDEFTAT 479 AEHLEDFEBTOGLKAMPANIDTINSGTINYEELKETAKLG-SRUTEAEVKOLMDA-ADVIGNGSTIDYISFTAT 439 ACLEBEETKGLKOMENDERNSGTINEELKETAKLG-SRUTEAEVKOLMDA-ADVIGNGSTIDYISFTAT 439 ACLEBEETKGLKOMENDERNSGTINEELKETAKLG-SRUTEAEVKOLMDA-ADVIGNGSTIDYISFTAT 434 * * * * * *		
CPK26	NK <mark>lkom</mark> alrvi	AESLSEBBLAGLKEMEKANDTONSCALTEDELKAGURRYS-STEKDTELRDEMEA-ADLOKSGTLDYGEELAAT 390		
CPK27 CPK28	NKFKKVVLKFI	AANLSEBBIKGIKTLETNIDTEKSONIHLEELKTEITRIC-SNESKTEVEOLMEA-ADNIGNETIDIDEFISAT 397		
CPK20 CPK29	NKEKKEALKVI	ASTLDEABISDLRDORDAIDVDKNGVISLEBMRQALARDLPWKLKDSRVAEILEA-IDSNIDELVDSISEVAAA 431 Aenlsebeikglkoisknudtlesciinedeleneuhrls-skuteseikolmea-adveksciidviseviam 477		
CPK30	NR <mark>ikkk</mark> alrvi	AEHLSIGEVEVIRNMETIMDDDDDCKISYLELRACURKVC-SOUGEPEIKLIMEV-ADVNGNCCLDVGEFVAVI 425		
CPK31	NKEKKVALKVI	AANLSEBERKGLKTLETNIDTEKSCTITLEELKTETTRLC-SNESKTEVEOLMEA-ADVEGNETIDIDEFISAT 397		
CPK32 CPK33	NKUKKUALEVI	AEHLEDEBASGIREGEQINDISORGKINIDELKIGUQKLG-HAHPQDDUQIDNDA-GDIDRDCYLDCDBETAIS 429 AENIDIEEIQGLKAMSANIDIINSCIINYEELKEGLAKLG-SRIIEAENKOLMDA-ADVDGNOSIDYIEEITAI 439		
CPK34	NNFKKVALRVI	AGCLSEBEINGLKEMEKGMDTENSGTITLEELROGDAKOG-TRESEYEVOOLMEA-ADAUGNGTIDYGEFIAAT 434		
	*			
EF Hand 1 EF Hand 2				
		Calmodulin-Like Domain		
CPK1		Calmodulin-Like Domain		
CPK2	LHLNKIEREDH	Calmodulin-Like Domain		
	LHLNKIEREDH MHMNRIEREDH	Calmodulin-Like Domain		
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EF Hand 3

EF Hand 4

CPK1	ITGGPVKMGLEKSFSIALKL	610
CPK2	IMGGPVKMGLENSISISLKH	646
CPK3	PELVPNRRRM	529
CPK4	GVGRSRTMRNNLNFNIAEAFGVEDTSSTAKSDDSPKSRTMRNNLNFNIAEAFGVEDTSSTAKSDDSPK	501
CPK5	AGVGRRTMRNSLNISMRDA	
CPK6	AGVGRRTMKNSLNISMRDV	
CPK7	DWRKASRQYSRERFNSLSLKLMRDGSLQLEGETGET	535
CPK8	DWRKASRQYSRERFNSLSLKLMREGSLQLEGENGEN	533
CPK9	DWRKASRQYSRERFNSLSLKLMREGSLQLEGENGEN	541
CPK10	DWRKASRQYSRERFKSLSINLMKDGSLHLHDALTGQTVPV	545
CPK11	GVGRSRTMMKNLNFNIADAFGVDGEKSDDSRTMMKNLNFNIADAFGVDGEKSDD	
CPK12	GTGGGIGRRTMRNSLNFGTTLPDESMNV	490
CPK13	DWRKASRHYSRGRFNSLSIKLMKDGSLNLGNENENE	528
CPK14	DWRKASRQYSRDLFKCLSLKLMQDGSLQSNGDTKNGDTK	530
CPK15	TLPQQGKILPVQ	554
CPK16	IKSRNVRSPPGYLISRKV	
CPK17	PDPI PKKRRELSFK	528
CPK18	LKSKNVKSPPGYQLSQKM	
CPK19	QSHQSKLVQPN	
CPK20	FGKMGLKVS	
CPK21	TQPQ-GKLLPFH	531
CPK22	ILQPQGKLVGIHI	498
CPK23	TQPK-GKQYPFH	520
CPK24	DWKMASRQYSRALLNALSIKMFKEDFGDNGPKSHSMEFPIARKRAKLLDAPKNKSMELQISKTYKPSGLRN	582
CPK25		_
CPK26	VGRTMRKSINMSIRNNAVSQ	484
CPK27	SLQPEGELLPIIN	
CPK28	ISSQRAPSPAGHRNLR	523
CPK29		-
CPK30	DWRKASRQYSRERFKSLSLNLMKDGSMHLHDALTGQSIAV	
CPK31	SLQPQRELLPIK	484
CPK32	DWRKASRQYSRERFNSISLKLMQDASLQSCVFDILANERAEYGDQERKTVLAFGCV	560
CPK33	PQQPRLF	521
CPK34	PDPN PKKRRELSFK	523

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