

	1	10	20	30
sp|Q9XFX4|CARDB_CYNCAProcardosinB	MGTPIKASLLAL	F	F	LLSPTAFSVSNGGLL
PpV7_05g0093900-5.p	MGA.SRSVRLAF	F	V	VLVLALAEASPR..
PpV7_06g0053700-6.p	MGE.MKGVRLAV	M	A	LLAACGVFAEASPR..
PpV7_15g0051300-3.p	LL	V	V	VVALYVGVSDAATREG
PpV7_07g0125100-4.p	MGKMRFNSEFTRVSA	I	S	LLWRESGCLMEFENPRS
PpV7_03g0051200-1.p	MRIPV.....AMLKLRLCAYFRRCL	M	T	STLLQSRIHRAL
PpV7_01g0034200-9.p	MGLHCDFIWGLVG	F	G	ELGREGVIGVSVNPSENE
PpV7_11g0032900-3.p	MESVQKEESGFAGKTVKTFMFLFIAWSL	A	N	SLTVAEKFEVLTSKFI
PpV7_07g0113000-4.p	MESVYEEESGHPNETGKFMPFVRRAL	A	L	TYLAVEEYRVSTSSIT
PpV7_19g0054700-4.p	MAFMGCQAL	V	C	IVLLQLLFATECYQSG
PpV7_03g0140000-3.p	MSVNPNCIGAMAMAVL	V	I	IVLLQLLFATECYQSG
PpV7_02g0113200-1.p	MGWTIQIVRIAL	G	V	ASMDELTMVAQAQ....
PpV7_18g0022800-1.p	MUVAKERSHAL	F	I	TLVLTSWTYFAQAASSYQ
PpV7_26g0049700-3.p	MATTVRSRGV	L	V	LMWLATTFANAL....
PpV7_26g0049200-2.p	MATTVRSRGV	L	V	LMWLATTFANAL....
PpV7_14g0074200-4.p	MTRMRCTWEGPGCASP	I	L	LVNVAAGELQQPSLIA
PpV7_03g0083800-4.p	.....		.....	

sp|Q9XFX4|CARDB_CYNCAProcardosinB	.....
PpV7_05g0093900-5.p	.....
PpV7_06g0053700-6.p	.....
PpV7_15g0051300-3.p	.....
PpV7_07g0125100-4.p	GSRGSTGV.....
PpV7_03g0051200-1.p	GGVLRLLVLHLRLALPPKLIKLDVLIAMSTSTALP
PpV7_01g0034200-9.p	NGNGLNGV.....
PpV7_11g0032900-3.p	GASLFKGMQLPLHVQARVSN...VKSHEGGRVNDMKLVANLKR
PpV7_07g0113000-4.p	SAVDYKGLELTERIQARLCN...AESCNRRAGLLKQSVDRKGL
PpV7_19g0054700-4.p	LTAIVFLIAVPITQTLAAR.....
PpV7_03g0140000-3.p	GGIFRGGGRKLEL.....LNRNPADADLNTNV
PpV7_02g0113200-1.p	.....
PpV7_18g0022800-1.p	.....
PpV7_26g0049700-3.p	.....
PpV7_26g0049200-2.p	.....
PpV7_14g0074200-4.p	DIIQRNTLQLDI.....GRRATPMNSWRHVKEV
PpV7_03g0083800-4.p	.....

	40
sp|Q9XFX4|CARDB_CYNCAProcardosinB	RVGLKKRV.....DRL
PpV7_05g0093900-5.p	RIALKKPV.....TL
PpV7_06g0053700-6.p	RIPLKKSI.....DL
PpV7_15g0051300-3.p	RVLLKQQRW.....SL
PpV7_07g0125100-4.p	RIESEKSA.LVLPL.....TRS
PpV7_03g0051200-1.p	LTEFSTEHSQTITHRKSNARG...VRFDMRRPS.SCAEMPMLDSE.....SRS
PpV7_01g0034200-9.p	RIQSNCGSA.LVLPL.....VES
PpV7_11g0032900-3.p	SRKLVGGSKEKSGF.....SKL
PpV7_07g0113000-4.p	SRKLTGLSKTPKSGF.....TKL
PpV7_19g0054700-4.p	L.....RTELHREH.PSSPLRSNTSK.....TTT
PpV7_03g0140000-3.p	M.....RSVLVHRDD.LRT...STSSR.....SRS
PpV7_02g0113200-1.p	QFSLVHGVAHLEGSPASRRDQ.....HMS
PpV7_18g0022800-1.p	RVLDLHRDH.PLSPIAPAEGT.....TLS
PpV7_26g0049700-3.p	RMDLFHKFS.KQAIEAMRSRNGMDYAQDWPTG
PpV7_26g0049200-2.p	RMDLFHKFS.KQAIEAMRSRNGMDYAQDWPTG
PpV7_14g0074200-4.p	SEKHPTIRKELANGVTIHAIIISHRDA.PSSPFRL.SNR.....TRA
PpV7_03g0083800-4.p	MORIES.PCGLQKVEDGR.....PRD

	50	60	70
sp|Q9XFX4|CARDB_CYNCAProcardosinB	DQLRAHG	VHMG	GNARKDFGFRRTLS.....DS
PpV7_05g0093900-5.p	QSVRNAASRTI	QRAKT	FTFRSEDEL.....D
PpV7_06g0053700-6.p	QSVRSAAARTL	QRAN	ALAGSANSRL.....
PpV7_15g0051300-3.p	QQLRKASWAS	RMRAQ	QARGGTRGGV.....GS
PpV7_07g0125100-4.p	KK...NDIVDR	RFERR	GRKLEESARM.....
PpV7_03g0051200-1.p	LH.FACALD	RSSRR	QRFLYQKMSSTNFIRSVTEDR.VGFPPEHQPLPSLGHNETLPGQTD
PpV7_01g0034200-9.p	KR.HGHVVDR	RFERR	GRGLVEDARM.....
PpV7_11g0032900-3.p	QA.LVEDMA	IDES	RLASFRKQGRHKLSNDNDNGAHSNANPPVITAVIEGP..PSHDHDF
PpV7_07g0113000-4.p	QA.LAEDMV	IDAT	RLAAFRNQKNRNNSSGSGVENH.TANPPVITAVIAGP..PSHDYGF
PpV7_19g0054700-4.p	EI.FLAAVK	RGAER	RAQLSKHILA.....E
PpV7_03g0140000-3.p	ER.FLDAVK	RSRI	RVTELEKKLRTS.....REEQVQA
PpV7_02g0113200-1.p	RE.YFETLKA	HDRR	RLAAVDFPLTG.....
PpV7_18g0022800-1.p	ER.LQAAAK	RYQKR	RTLLTSRGRRL.....
PpV7_26g0049700-3.p	TIEFQTMLRD	HVAR	RHTRTARRILAA.....SSMDQYVL
PpV7_26g0049200-2.p	TIEFQTMLRD	HVAR	RHTRTARRILAA.....SSMDQYVL
PpV7_14g0074200-4.p	ER.IHETIL	RDNLR	VASIHARINQMVNGVSTSNSHDRQT.....KVPSQDF
PpV7_03g0083800-4.p	HHKLRCAYH	RSSLR	AREVGKKLHA.....HGSKGTKAGDNLPGGTS

	80	90	100	110
sp|Q9XFX4|CARDB_CYNCAProcardosinB	GSGIVALTNDRD	TYGEIGICTPPQNF	FAVIFDTGSSDL	WVPSAKCY
PpV7_05g0093900-5.p	GEDIVALNNYLD	QYFGEIGIGSPPOPF	FAVIFDTGSSDL	WVPSAKCY
PpV7_06g0053700-6.p	GGDAVDLNNYMD	QYFGEIGIGSPPOPF	FAVIFDTGSSDL	WVPSAKCY
PpV7_15g0051300-3.p	GGDEVALVNYLD	QYGVIEIGTPKQEFF	TVVFDTGSSDL	WVPSAKCY
PpV7_07g0125100-4.p	...TLHDDLITKG	YTSRVFICTPPNEF	FALIVDTGSTV	TVVPCCSC
PpV7_03g0051200-1.p	NESYEFPEAGY	FLVPIYICTPPQKAV	VIIDTGSDLT	WVPSAKCY
PpV7_01g0034200-9.p	...VLHDDLITKG	LEIKLMSSGVPIIY	TSRVFICTPPQEF	FALIVDTGSTV
PpV7_11g0032900-3.p	QSPVVS GSTLGS	QYFVDFFLCTPPQKF	SLIVDSGSDL	WVPSAKCY
PpV7_07g0113000-4.p	QSPVVS GSTLGS	QYFVDFFLCTPPQKF	SLIVDSGSDL	WVPSAKCY
PpV7_19g0054700-4.p	GRLFSTPVASNG	EYLVDFISFSGPPQKAS	VIIDTGSDLT	WVPSAKCY
PpV7_03g0140000-3.p	ARSLEGQVSAGS	EYVLQISLCTPPQKF	FAVIFDTGSDLC	WVPSAKCY
PpV7_02g0113200-1.p	...DDDFPVTV	LYYTKIYLCCTPPVGV	YVQVDTGSDVT	WVPSAKCY
PpV7_18g0022800-1.p	.GAFTTTPITAESF	EYVIPLFFCTPLQPF	FTGMVDTGSDLV	WVPSAKCY
PpV7_26g0049700-3.p	IQGNATEQLFSGG	LHYSYIDICTPNVQF	FLVVLDTGSDLV	WVPSAKCY
PpV7_26g0049200-2.p	IQGNATEQLFSGG	LHYSYIDICTPNVQF	FLVVLDTGSDLV	WVPSAKCY
PpV7_14g0074200-4.p	QAPVISGLSLSGS	EYFIRVSVCTPPPRGM	MYLVMDTGSDLT	WVPSAKCY
PpV7_03g0083800-4.p	AGGFTATVAAARG	EYLATVRRLCTPPERV	FVIVDTGSDLV	WVPSAKCY

	120	130	140
sp|Q9XFX4|CARDB_CYNCAProcardosinB	CV.IH	PRYDSGDSTYK	...NGGT
PpV7_05g0093900-5.p	LSLACY.FH	HRYSKSGKSTYK	...EDGT
PpV7_06g0053700-6.p	LSLACY.FH	RRYKSSKSTYK	...EDGT
PpV7_15g0051300-3.p	LSLACF.FH	HRYSKSGKSTYK	...EDGT
PpV7_07g0125100-4.p	..THCG.HHQ	..D...PRFKPENSSSYQK	IGCRSSDCITGL
PpV7_03g0051200-1.p	..RACF.EQA	..D...PIFDPKSTYKNI	ACSSACADLLGTQT
PpV7_01g0034200-9.p	..THCG.HHQACFD	..PRFKPDNSSSYQTVS	CNSPDCITKM
PpV7_11g0032900-3.p	..LQCY.AQD	..T...PLYAPSNSTFN	NPVPCLSPECLLIPATEGFP
PpV7_07g0113000-4.p	..RQCY.AQD	..S...PLYVPSNSTF	SPVPCLSSDCLLIPATEGFP
PpV7_19g0054700-4.p	..ETCN.AAA	..S...VIFDPVKSTYD	TVSCASNFCSSLPFQS
PpV7_03g0140000-3.p	..ARCF.EQP	..D...PLFIPLASSSY	SNASC TDSLCDALPRPT
PpV7_02g0113200-1.p	..TSCV.TET	..H...QLPSIKLTT	YDPSRSTDGALSCRD
PpV7_18g0022800-1.p	..INCYTTHT	..H...PEFDPSTTSSE	AYVPC TDPAL
PpV7_26g0049700-3.p	..ESCAPLSAESKDP	RTSQNLNPTPSLS	STAKPVLCSDPLCEMSST
PpV7_26g0049200-2.p	..ESCAPLSAESKDP	RTSQNLNPTPSLS	STAKPVLCSDPLCEMSST
PpV7_14g0074200-4.p	..VSCY.HQC	..D...EVFDPYKSTY	STLGCNSRQCLNLDVGG
PpV7_03g0083800-4.p	..GT	CV.SQN	..D...SLFIPNTSTSF

	150	160
sp|Q9XFX4|CARDB_CYNCAProcardosinB	TASIQYGTGAI	VGFYSQDSVEVGD
PpV7_05g0093900-5.p	SFAIQYGTGSM	EGFLSQDDVT
PpV7_06g0053700-6.p	SFAIQYGTGSM	EGFLSQDDVT
PpV7_15g0051300-3.p	PFAIQYGTGSM	EGFLSIDDVT
PpV7_07g0125100-4.p	KYERMYAEMSTS	KGVLGKDL
PpV7_03g0051200-1.p	IYAYGYGDGSVT	RGYFSKETITATD
PpV7_01g0034200-9.p	KYERMYAEMSTS	KGVLGKDL
PpV7_11g0032900-3.p	AYEYRYADTSL	KGVFAYESATVDD
PpV7_07g0113000-4.p	AYEYLYADTSS	KGVFAYESATVDD
PpV7_19g0054700-4.p	KYDYMYGDGSST	SGALSTETVT
PpV7_03g0140000-3.p	TYSYSYGDGSNT	RGDFAFETVT
PpV7_02g0113200-1.p	AYSTTYGDGSST	QGYFIQDVM
PpV7_18g0022800-1.p	...SNFSARGDL	...TMDG
PpV7_26g0049700-3.p	PYEINYVSANTST	SCALYEDYMYFMRES
PpV7_26g0049200-2.p	PYEINYVSANTST	SCALYEDYMYFMRES
PpV7_14g0074200-4.p	LYQVDYGDGSFS	TGEFATDAVSLNST
PpV7_03g0083800-4.p	VYWYSYGDGSFS	TGDFVYDTITMDG

	170	180	190	200	210	220
sp|Q9XFX4|CARDB_CYNCAProcardosinB	...VEHQD	FIETTEED	TVFLK.S	EFDGILGLGFQ	ISAGKAV	PPVWYNMVNQGLVEE
PpV7_05g0093900-5.p	...VKQGV	FAEATKEP	GLTFV.V	AKFDGILGLGFKE	ISVNRVT	PPVWYNMLDQGLVKE
PpV7_06g0053700-6.p	...VKWQV	FAEATKEP	GVTFV.V	AKFDGILGLGFKE	ISVDRVT	PPVWYNMLDQGLVKE
PpV7_15g0051300-3.p	...VKAQV	FAEATKEP	GVTFLA	AEMDGILGLGFKE	ISVNDVN	PPVWYNMLYQKLVQE
PpV7_07g0125100-4.p	...QSLLS	FGCETAESG	DLYLQ	..VADGIMGLGRGP	LSIVDQL	LVNGAI
PpV7_03g0051200-1.p	...KVDLF	FGASVYNTG	TF..G	DTGGEGILGLGQGP	VSMPSQL	GSV
PpV7_01g0034200-9.p	...QPHPL	FGCETAETG	DLYLQ	..HADGIMGLGRGP	LSIVDQL	LVGTAM
PpV7_11g0032900-3.p	...IDKVA	FGCERADN	QSF..A	..AAGGVLGLGQGP	LSFGSQ	VGYA
PpV7_07g0113000-4.p	...IDKVA	FGCSDNQ	QSF..A	..AAGGVLGLGQGP	LSFGSQ	VGYA
PpV7_19g0054700-4.p	...IPNVA	FGCGHTNL	GSF..A	..GAAGIVGLGQGP	LSLSQ	ASSI
PpV7_03g0140000-3.p	...LARI	FGCGHNEG	TF..A	..GADGLIGLQGP	LSLPSQ	LNSS
PpV7_02g0113200-1.p	SDLHPRETLLT	LKCGTTQSG	NLLMSSRALD	GLIGFGQA	AVSP	SQLASMGKV
PpV7_18g0022800-1.p	...KLPVYL	GCGKVTQ	GSLLKG	..AAPNGLMGLG	TTDISV	PNKLASTGQL
PpV7_26g0049700-3.p	...KLPVYL	GCGKVTQ	GSLLKG	..AAPNGLMGLG	TTDISV	PNKLASTGQL
PpV7_26g0049200-2.p	...VLNKL	PLGCGHDNE	GSF..V	..GAAGLLGLGQGP	LSLPSQ	LNSS
PpV7_14g0074200-4.p	...QVPNFA	FGCGHDNE	GSF..A	..GADGLIGLQGP	LSLPSQ	LNSS
PpV7_03g0083800-4.p	...QVPNFA	FGCGHDNE	GSF..A	..GADGLIGLQGP	LSLPSQ	LNSS

	230	240	250	260	270
sp|Q9XFX4|CARDB_CYNCAProcardosinB	AV SFWL .NRNVDEEEGGELV F CGVDPNHFRGNHT YVPVT RKGY WQF EMGD VLI G				
PpV7_05g0093900-5.p	PV SFWL .NRNPDESSGGELV L GGVDPKHFKGEHV YTPVT RKGY WQF DLGD VTI N				
PpV7_06g0053700-6.p	PV SFWL .NRSDDESDDGGELV F GGVDPDHFKEHHT YTPVT RKGY WQF DLGD VTI A				
PpV7_15g0051300-3.p	PV SFWL .NRDVEGEKGGELV L GGVDPHHFKGNHT YTPVT RLGY WQF DMGD VLL D				
PpV7_07g0125100-4.p	DS S SLCYGGMD E GG...GSMVLGAIPAPS..G.MV F AK...SDPRRSN Y YNLE L TE I QVQ				
PpV7_03g0051200-1.p	NK S SYCLVDWL S AGSET S TM F FGDAAVPS..GEV Q Y T PIV.PNADHPT Y Y I AV Q GISV G				
PpV7_01g0034200-9.p	DS S SLCYGGMD E GG...GSMVLGAIPPP..A.MV F AK...SDPNRSN Y YNLE L SE I QVQ				
PpV7_11g0032900-3.p	NK S AYCLVN Y LDPT S VSS L IFGDELIST I HD.L Q F T PIV.SNSRNPT L Y V Q I E K V M V G				
PpV7_07g0113000-4.p	NK S AYCLVN Y LDPT S VSS L IFGDELIST I HD.M Q Y T PIV.SNPKSPT L Y V Q I E K V T V G				
PpV7_19g0054700-4.p	KK S SYCLVPLGS..TKT S PM L IGD S AAAG..G.VA Y T A LL.TNTANPT F Y Y AD L T G IS V S				
PpV7_03g0140000-3.p	HI S SYCLVDQ S T T GT.F S P I T F GNAAENS..R.A S F T PL L .Q N EDNPS Y Y V GV S ESV G				
PpV7_02g0113200-1.p	NR S FA C CL Q G...DNQGG T IV I GSVSEPN...IS Y T P IV....SRNH Y AV G MQ N IA V N				
PpV7_18g0022800-1.p	DV S FA C CLVPYTAAT T LS A LV F GSRDAT N ALG.LV Y T P LL.Q G T.SP S F Y Y V GV G MV G V S VA				
PpV7_26g0049700-3.p	DS S SL C IS P GGSG T LT F GDEGPAA....Q R T P I P KSV S MLD T Y I VE I DS I T V G				
PpV7_26g0049200-2.p	DS S SL C IS P GGSG T LT F GDEGPAA....Q R T P I P KSV S MLD T Y I VE I DS I T V G				
PpV7_14g0074200-4.p	GR S SYCL T GRD T D S TER S LI F GDAAVPPA.G.VR F T P QA..SNLRV S T F Y Y L K MT G IS V G				
PpV7_03g0083800-4.p	GK S SYCLVDWLAP T QT S LL F FGDAAV P T F PG.VR Y IS L LL.T N PKV P T Y Y V W K L N G I S V G				

	280	290	300	310	320
sp|Q9XFX4|CARDB_CYNCAProcardosinB	D K S S GF.....CAGG C AA I AD S GT S FAGPTA T IT Q IN Q AT G .AK G VIN Q QCK T LV G				
PpV7_05g0093900-5.p	G R IT G F.....CANG C TA I AD S GT S LAGPS G IVAEIN Q AT G .AT G VVS Q QCK M V V Q				
PpV7_06g0053700-6.p	G R SV G F.....CAQ G CSA I AD S GT S LAGPS G IVAEIN Q AT G .AT G IVS Q QCK M V V Q				
PpV7_15g0051300-3.p	G Q ST G F.....CAG G CAA I AD S GT S LAGPT G IVAEIN Y AT G .AT G II S GECK L V V D				
PpV7_07g0125100-4.p	GAS L KLDS N VF...NGK F GT I LD S GT T YAYLPD R AF E AFT D AV V .AO L GS L Q.....				
PpV7_03g0051200-1.p	GS L LDIDQ S V E IDS G SG G GT I DS G TT I TYLQ Q EV F NALVA Y T.S Q VR Y PT.....				
PpV7_01g0034200-9.p	G V SL N VP S EV F ...NGR I GT V LD S GT T YAYLPD K AF D AF K DA I T.Q O LGS L Q.....				
PpV7_11g0032900-3.p	GE S LP I SHSAWS L DFLGN G GS I FD S GT T VTYWLP P AY R NI L AA F D.K N V R Y P R.....				
PpV7_07g0113000-4.p	G K SL P ISDS A WEID L LNG G GS I FD S GT T LTYWFP S AY S HI L AA F D.S G V H Y P R.....				
PpV7_19g0054700-4.p	G K AV T YPV G TF S IDAS G Q G GF I LD S GT T LT Y LET G AF N ALVA L K.AE V PF P E.....				
PpV7_03g0140000-3.p	NRR V PTPP S AFR I DANG V GG V IL D S G TT I TYWRL A AF I PILAE L R.R Q IS Y PE.....				
PpV7_02g0113200-1.p	GR N V T TP S .FD T T S T S AG V IM D S G TT L AYLV D PA Y T Q FVN A IV.AA P VP V				
PpV7_18g0022800-1.p	G V DA G IPT A LF...ASTD G V L FD S GT T LT Y FA P E I YD P LH Q SI A .GA I PP V				
PpV7_26g0049700-3.p	NT N LL M ASH.....A L FD T GT S FT Y LS K TV P Q F V Q AY D .A Q MS L PK.....				
PpV7_26g0049200-2.p	NT N LL M ASH.....A L FD T GT S FT Y LS K TV P Q F V Q AY D .A Q MS L PK.....				
PpV7_14g0074200-4.p	GS I L T IPT S AF Q LD S LGN G V I IDS G TS V TRL Q NA Y AS L RE A FR.A G TS D LV.....				
PpV7_03g0083800-4.p	G K L L NI S STA F DI D SVGR A GT I FD S GT T V T QLAG E V H Q E V L AA M NA S T M D Y PR.....				

	330	340	350	360	370
sp|Q9XFX4|CARDB_CYNCAProcardosinB	QY G K N MIQ M LT S .VQ P DK I C S HM....K L CTFDGA H DV.RSM I ESV D K N ND.K S SG G				
PpV7_05g0093900-5.p	QY G DQ I VE M LL A Q.M N PGK V C T TL....G L C N FG A G...EP G IASV E K D Q S HS L RED				
PpV7_06g0053700-6.p	QY G EQ I VE M L V AQ.M N PGK V C A SL....G L C Q LA G ...EP G IASV L E K EE V HS L HAD				
PpV7_15g0051300-3.p	QY A DF I IQ M LS K LL T PL K ICA K A....G A CLVE E GT S TR N PN I ASV L E K HN.D L GN G				
PpV7_07g0125100-4.p	AVD G PD P N Y P....D I C Y AG A G.....				
PpV7_03g0051200-1.p	T....TS A T G L....D L C F NT R G.....				
PpV7_01g0034200-9.p	AVP G PD P S Y P....D V C F AG A G.....				
PpV7_11g0032900-3.p	A...AS V Q G L....D L C V D V T G				
PpV7_07g0113000-4.p	A...ES V Q G L....D L C V EL T G.....				
PpV7_19g0054700-4.p	A.D.G S LY G L....D Y C F ST A G.....				
PpV7_03g0140000-3.p	A..D P TP Y GL....N L C Y DI S S.....				
PpV7_02g0113200-1.p	T.V V T S S S E....S I C W I Y T G				
PpV7_18g0022800-1.p	A.P D P V DA V VAK P LN R L C F D LAG.....				
PpV7_26g0049700-3.p	W.ND P RF S K W D L C Y Q T SN.....				
PpV7_26g0049200-2.p	W.ND P RF S K W D L C Y Q T SN.....				
PpV7_14g0074200-4.p	L T TE F SL F D T C Y N L SD.....				
PpV7_03g0083800-4.p	K.S.D D S S GL....D L C L GG F A.....				

	380	390	400	410	420	430
sp|Q9XFX4|CARDB_CYNCAProcardosinB	E I CT F CE M AL V RM Q NE I K R NET E DN I INH V NE V CD Q LP T SS A ES I VD C N G ISS....M P N					
PpV7_05g0093900-5.p	PL C TVCE M AV V WA Q N Q LS Q NR T KE I DA Y LN Q LC E RL P SP N GES A VD C N S LS....M P N					
PpV7_06g0053700-6.p	PR C TVCE M AL V WA Q N Q LR M NR T KE I DA Y LN Q LC E RL P SP N GES A VD C N S LS....M P N					
PpV7_15g0051300-3.p	VT C V F CE M V I WA Q N Q LR K NG T QA Q IK E HL N Q L C E RL P NP N GES M VD C N S LS....M P D					
PpV7_07g0125100-4.p	T..D T ..K E L G K H F L					
PpV7_03g0051200-1.p	T..G S ..P V ...F E A					
PpV7_01g0034200-9.p	S..D S ..K A L G K H F P					
PpV7_11g0032900-3.p	V..D Q ..P S ...F E S					
PpV7_07g0113000-4.p	V..D Q ..P S ...F E S					
PpV7_19g0054700-4.p	V..A N ..P T ...Y P T					
PpV7_03g0140000-3.p	V S A S ..L T ...F E S					
PpV7_02g0113200-1.p	D..L Q ..A D ...F E T					
PpV7_18g0022800-1.p	V..Q S ..P V ...F E T					
PpV7_26g0049700-3.p	T...N..F Q ...V P V					
PpV7_26g0049200-2.p	T...N..F Q ...V P V					
PpV7_14g0074200-4.p	L..S S ..V D ...V P T					
PpV7_03g0083800-4.p	E..G Q LP T ...V E S					

490 500

sp|Q9XFX4|CARDB_CYNCAProcardosinB MFMGYPYH TVFDYGKLRV GFAAEAV.

PpV7_05g0093900-5.p VFMGVYHT TVFDGNGTRL GFAAEAA.

PpV7_06g0053700-6.p VFMGVYHT TVFDGNGSRL GFAKAA.

PpV7_15g0051300-3.p VFMGAYHT TVFDGNGRL GFALAA.

PpV7_07g0125100-4.p IIVRNMLV TVDYRNHQIG FLKTN CTELWSILPAEAPLTA PAVSPSPVPANEE SPVPPEPS

PpV7_03g0051200-1.p IQQNFDFI VYDDLNNMRT GFAPAD CASL.

PpV7_01g0034200-9.p IVVRNTLV TVDRANHG IGFFKNTN CTNLWSILPAEPPLAPP. PPPVNESSPIESPA

PpV7_11g00332900-3.p LLQQNFVL VQYDREENRI GFAPAK CSSHS.

PpV7_07g0113000-4.p LLQQNFVQ VYDREENLI GFAPAK CSSHS.

PpV7_19g0054700-4.p IQQQNHLL VHDLVNQRV GFKEAN CETI.

PpV7_03g0140000-3.p VQQNNLLV TVDVANSRV GFLATD CSTL.

PpV7_02g0113200-1.p TVLKDHLV VYDNDNRV VGKSFDC TKTSIRVSADSS TSPNEVMP.

PpV7_18g0022800-1.p IQQANHYI EHDVALNRNI IGWTSKDC TV.

PpV7_26g0049700-3.p NFMTNYSIT TVNRAKMTI IGWTPSD CSTDLTLSNSTPGSVPAALPPTAPLPAVPRPASPNT

PpV7_26g0049200-2.p NFMTNYSIT TVNRAKMTI IGWTPSD CSTDLTLSNSTPGSVPAALPPTAPLPAVPRPASPNT

PpV7_14g0074200-4.p IQQQGFRV IYDNLNHQV GFVPSQCD.

PpV7_03g0083800-4.p IQQQNFQV IYD TVGRKI GFVPSK CVGRG.

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sp|Q9XF44|CARDB_CYNCAProcardosinB      . . . . .
PpV7_05g0093900-5.p                      . . . . .
PpV7_06g0053700-6.p                      . . . . .
PpV7_15g0051300-3.p                      . . . . .
PpV7_07g0125100-4.p                      ALPSPSVNAPPPLSTESPAPVSQAEIFFDRIQLIIVLDTNKTIICEQMGVFLSSIASELN
PpV7_03g0051200-1.p                      . . . . .
PpV7_01g0034200-9.p                      SLPEDKQD . . . . . FGSIELLIELFDGNFTTILNQTLFLFKSSMASELA
PpV7_11g0032900-3.p                      . . . . .
PpV7_07g0113000-4.p                      . . . . .
PpV7_19g0054700-4.p                      . . . . .
PpV7_03g0140000-3.p                      . . . . .
PpV7_02g0113200-1.p                      . . . . .
PpV7_18g0022800-1.p                      . . . . .
PpV7_26g0049700-3.p                      . . . . .
PpV7_26g0049200-2.p                      . . . . .
PpV7_14g0074200-4.p                      . . . . .
PpV7_03g0083800-4.p                      . . . . .

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sp|Q9XF44|CARDE_CYNCAProcardosinB      .....
PpV7_05g0093900-5.p                     .....
PpV7_06g0053700-6.p                     .....
PpV7_15g0051300-3.p                     .....
PpV7_07g0125100-4.p                     VSESQINSEdVTVKEEAGQAVVLVVYAESSQHfSSSSAQTLASrFGNHtVQLPAVFgTY
PpV7_03g0051200-1.p                     .....
PpV7_01g0034200-9.p                     ISSSQISIED..IKEDGEHVVRcIISSPASSQLfSSSSAAKALAARLEDHTVklPEIFgAY
PpV7_11g0032900-3.p                     .....
PpV7_07g0113000-4.p                     .....
PpV7_19g0054700-4.p                     .....
PpV7_03g0140000-3.p                     .....
PpV7_02g0113200-1.p                     .....
PpV7_18g0022800-1.p                     .....
PpV7_26g0049700-3.p                     .....
PpV7_26g0049200-2.p                     .....
PpV7_14g0074200-4.p                     .....
PpV7_03g0083800-4.p                     .....

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sp Q9XFX4 CARDB_CYNCAProcardosinB	
PpV7_05g0093900-5.p	
PpV7_06g0053700-6.p	
PpV7_15g0051300-3.p	.....
PpV7_07g0125100-4.p	TLKSWKGLPPSRRGWFQSKKIKVAAIVAGVVGLVAMLALVPSLAYWYISKYKEKNQVNYK
PpV7_03g0051200-1.p	.....
PpV7_01g0034200-9.p	RLRSWKGLPPSKWAWIHSDRAKMGAMIAILVGVVVLLAVIASLVYWYFFKYRNRGQIKYE
PpV7_11g0032900-3.p	.....
PpV7_07g0113000-4.p	.....
PpV7_19g0054700-4.p	.....
PpV7_03g0140000-3.p	.....
PpV7_02g0113200-1.p	.....
PpV7_18g0022800-1.p	KLGASGAGASREISTHVLLLCCLFAMLSIYS.....
PpV7_26g0049700-3.p	.....
PpV7_26g0049200-2.p	VTANSNVATAVLADILPLLLACLISLAAIFG.....
PpV7_14g0074200-4.p	VTANSNVATAVLADILPLLLACLISLAAIFG.....
PpV7_03g0083800-4.p	.....

sp|Q9XFX4|CARDB_CYNCAProcardosinB	.....
PpV7_05g0093900-5.p	.....
PpV7_06g0053700-6.p	.....
PpV7_15g0051300-3.p	.....
PpV7_07g0125100-4.p	NLNAAENSEEESLIGDQQL
PpV7_03g0051200-1.p	.....
PpV7_01g0034200-9.p	NLEVAETNEETWIGDEQL
PpV7_11g0032900-3.p	.....
PpV7_07g0113000-4.p	.....
PpV7_19g0054700-4.p	.....
PpV7_03g0140000-3.p	.....
PpV7_02g0113200-1.p	.....
PpV7_18g0022800-1.p	.....
PpV7_26g0049700-3.p	.....
PpV7_26g0049200-2.p	.....
PpV7_14g0074200-4.p	.....
PpV7_03g0083800-4.p	.....