

	1				50				100	
CsCCD1-Crocus	MGEVAKELVE	.....ER	RSIVAVNPGP	SKGLVSSAVD	LLESAVYLYF	FDKSKPCHYL	SGNFAPVVE	TPPCDLPVR	GHLPECLNGE	FVRVGNPKF
ZmCCD1-Zea	~~~~~MDSHR	.....ND	GVVVVPAPRP	RKGLASWALD	LLESAAVRLG	FDKTKPLHWL	SGNFAPVVE	TPPAPNLIVR	GHLPECLNGE	FVRVGNPKF
AtCCD1-Arabidopsis	~~~~~MAEKL	.....DG	SIIISVHPRP	SKGFSSKLLD	LLERLVVKLM	HDASLPLHYL	SGNFAPIRDE	TPPVKDLPVH	GHLPECLNGE	FVRVGNPKF
CmCCD1-Cucumis	~~~~~K	QKLNGGLPG	RSLVEVSEPK	SKGLVSKATD	LLEKLVFKLM	YDSSKPQHLYL	SGNFAPVHDE	TPPIIDLVPK	GHLPECLNGE	FVRVGNPKF
RdCCD1-Rosa	MAEVVEKRHD	DDVKEKLKS	NGIVVNPFPK	SKGVSTLVLD	TVEKLIVKLM	YDSSQPHHLYL	AGNFAPVIE	TPPTKDLHVI	GHLPECLNGE	FVRVGNPKF
<b>MtCCD1-Medicago</b>	~~~~~MESEK	.....IG	GGIVKVEPKP	SNGFTSKAVD	LLEKLIIVKLF	YDSSLPHHHL	AGNFAPVKDE	TPPIKDLPIK	GHLPECLNGE	FVRVGNPKF
PsCCD1-Pisum	~~~~~MGSEK	.....EN	GVILEVEPKP	SNGFTSKAVD	LLEKLIIVKLF	YDSSLPHHHL	SGNFAPVKDE	TPPVKDLTVQ	GHLPECLNGE	FVRVGNPKF
PvCCD1-Phaseolus	~~~~~MGDDGK	KN...G.AE	GGLVKVDPKP	TNGFSSKVID	LLEKLLVKFL	YDSSLPHHLYL	TGNFGPVT.E	TPPTKDLVPK	GHLPECLNGE	FVRVGNPKF
CmCCD1-Castanea	~~~~~MAEEKQ	KLSGGGG.AG	GGIVAVDPKP	NNGLTSKVID	EVEKLVVKLM	YDSSLPHHLYL	SGNFAPVREE	TPPTTDLIVK	GHLPECLNGE	FVRVGNPKF
VvCCD1-Vitis	~~~~~MAEKEE	Q.....GG	AGVVVVDPKP	SKGFTSKAVD	WLEKLVVKLM	YDSSQPLHLYL	SGNFAPVRDE	TPPCKNLPVI	GHLPECLNGE	FVRVGNPKF
CaCCD1-Coffea	~~~~~MGRQEG	EEVVEKIEGK	QEVVVVNPFPK	NNGFATAKLID	WLEKLVVKLM	YDSSQPLHLYL	SGNFAPVDE	TPPCKDLLVR	GHLPECLNGE	FVRVGNPKF
PhCCD1-Petunia	~~~~~MGRKES	..DDGVERIE	GGVVVNPFPK	KKGITAKAID	LLEKVIIVKLM	YDSSKPLHLYL	SGNFAPTD.E	TPPLNDLPIK	GHLPECLNGE	FVRVGNPKF
SlCCD1A-Solanum	~~~~~MGRKE	..DDGVERIE	GGVVVNPFPK	RRGITAKAID	LLEWGIIVKLM	YDSSKPLHLYL	QGNFAPTD.E	TPPLNDLIVQ	GHLPECLNGE	FVRVGNPKF
SlCCD1B-Solanum	~~~~~MGMNE	..EDGVARIE	G.VVVVDPKP	QNGVAAKAID	WLEWAIIVKLM	NDSTKPLPFL	QGNFAPTD.E	TPPLKNLPVI	GHLPECLNGE	FVRVGNPKF

	101				150				200	
CsCCD1-Crocus	MFVAGYHWF	GDGMIHGMRI	KDGKATYASR	YVKTARLKQE	EYFEGPKFMK	IGDLKGFGL	FMVQMQLLRA	KLKVIDVSYG	VGTGNTALIV	HHGKLALISE
ZmCCD1-Zea	APVAGYHWF	GDGMIHAMRI	KDGKATYVSR	YVKTARLKQE	EYFGGAKFMK	IGDLKGFGL	FMVQMQLRK	KFEVLDFTYG	FGTANTALIV	HHGKLALISE
AtCCD1-Arabidopsis	DAVAGYHWF	GDGMIHGRI	KDGKATYVSR	YVKTARLKQE	EYFGAAKFMK	IGDLKGFGL	LMVNIQQLRI	KLKILDNTYG	NGTANTALIV	HHGKLALISE
CmCCD1-Cucumis	SPVAGYHWF	GDGMIHGLRI	KDGKATYVSR	YVRTSRLKQE	EYFGAAKFMK	IGDLKGFGL	LMVNMQLLRA	KLKVIDVSYG	TGTGNTALIV	HHGKLALISE
RdCCD1-Rosa	APVAGYHWF	GDGMIHGMRI	KDGKATYVSR	YVKTARLKQE	EYFGGAKFMK	VGDLKGLFGL	LMVYMQQLRA	KLKVIDVSYG	HGTGNTALIV	HHGKLALISE
<b>MtCCD1-Medicago</b>	APVAGYHWF	GDGMIHGLRI	KDGKATYVSR	FVKTARLKQE	EYFGGSKFMK	IGDLKGLFGL	LMVNMQLLRA	KLKVIDVSYG	HGTANTALIV	HHGKLALISE
PsCCD1-Pisum	SPVAGYHWF	GDGMIHGLRI	KDGKATYVSR	FVKTARLKQE	EYFNGSKFMK	IGDLKGLFGL	LMVNMQLLRA	KLKVIDVSYG	HGTANTALIV	HHGKLALISE
PvCCD1-Phaseolus	APVAGYHWF	GDGMIHGLRI	KDGKATYVSR	FVETSRLKQE	EYFGRSKFMK	IGDLKGLFGL	LMVNIHMLRI	KLKVIDVSYG	GTTANTALIV	HHGKLALISE
CmCCD1-Castanea	SPVAGYHWF	GDGMIHGLRI	KNGKATYVSR	YVRTSRLKQE	EYFGGAKFMK	IGDLKGLFGL	LMVNMQILRI	KLKVIDVSYG	YGTANTAMVY	HHGKLALISE
VvCCD1-Vitis	SPVAGYHWF	GDGMIHGLRI	KDGKATYVSR	YVRTSRLKQE	EYFGGAKFMR	IGDLKGLFGL	LMVNMQLLRA	KLKVIDVSYG	TGTGNTALIV	HHGKLALISE
CaCCD1-Coffea	SPVAGYHWF	GDGMIHGLRI	KDGKATYVSR	YVKTARLKQE	EYFGGSKFMK	VGDLKGLYGL	FMVNMQILRA	KLKVIDVSYG	IGTANTALIV	HHGKLALISE
PhCCD1-Petunia	APVAGYHWF	GDGMIHGLRI	KDGKATYVSR	YVRTSRLKQE	EYFEGAKFMK	IGDLKGLFGL	FTVYMQMLRA	KLKVIDVSYG	NGTANTALIV	HHGKLALISE
SlCCD1A-Solanum	APVAGYHWF	GDGMIHGLRI	KDGKATYVSR	YVRTSRLKQE	EYFGGAKFMK	VGDLKGLFGL	FTVYMQMLRI	KLKVIDVSYG	NSTANTALIV	HHGKLALISE
SlCCD1B-Solanum	APVAGYHWF	GDGMIHGLRI	KDGKATYVSR	FVRTSRLKQE	EYFGGAKFMK	IGDLKGLFGL	FSVYIYMLRE	KLKVIDVSYG	NGTANTALIV	HHGKLALISE

	201				250				300	
CsCCD1-Crocus	ADKPYVVKVL	EDGDLQTLGL	LDYDKRLSHS	FTAHPKVPDF	TDEMFTFGYA	HTEFPYVYTRV	ISKDGVMRDP	VPITIPASVM	MHDFAITENY	SIFMDLPLLYF
ZmCCD1-Zea	ADKPYVVKVL	EDGDLQTLGL	LDYDKRLKHS	FTAHPKVPDF	TDEMFTFGYS	HEFPYCTYTRV	LNKEGAMLDP	VPITIPESVM	MHDFAITENY	SIFMDLPLLYF
AtCCD1-Arabidopsis	ADKPYVIKVL	EDGDLQTLGL	IDYDKRLTHS	FTAHPKVPDV	TDEMFTFGYS	HTEFPYLYTRV	ISKDGIMHDP	VPITISEPIM	MHDFAITENY	AIFMDLPLLYF
CmCCD1-Cucumis	GDKPYVIKVL	EDGDLQTLGL	LDYDKRLTHT	FTAHPKVPDF	TDEMFTFGYS	HTEFPYVYTRV	ISKDGLMHDP	VPITIPAPVM	MHDFAITENY	AIFMDLPLLYF
RdCCD1-Rosa	GDKPYVVKVL	EDGDLQTLGL	LDYDKRLKHS	FTAHPKVPDF	TDEMFTFGYS	HTEFPYVYTRV	ISKDGFMDHP	VPITVPAPVM	MHDFAITENY	AIFMDLPLLYF
<b>MtCCD1-Medicago</b>	GDKPYAIKVF	EDGDLQTLGM	LDYDKRLGHN	FTAHPKVPDF	TDEMFTFGYS	HTEFPYIYTRV	ISKDGFMDHP	VPITISEPIM	MHDFAITENY	SIFMDLPLLYF
PsCCD1-Pisum	GDKPYAIKVF	EDGDLQTLGM	LDYDKRLGHN	FTAHPKVPDF	TDEMFTFGYS	HTEFPYVYTRV	ISKDGFMDHP	VPITISDPVM	MHDFAITENY	SIFMDLPLLYF
PvCCD1-Phaseolus	ADKPYAIKVF	EDGDLQTLGM	LDYDKRLGHS	FTAHPKVPDF	TDEMFTFGYA	HTEFPYIYTRV	ISKDGYMHDP	VPITISDPIM	MHDFAITENY	AVFMDLPLLYF
CmCCD1-Castanea	ADKPYAVKVL	EDGDLQTLGM	LDYDKRLSHS	FTAHPKVPDF	TDEMFTFGYS	HTEFPYIYTRV	ISKDGFMDHP	VPITISDPIM	MHDFAITENY	AIFMDLPLLYF
VvCCD1-Vitis	ADKPYVVKVL	EDGDLQTLGM	LDYDKRLTHS	FTAHPKVPDF	TDEMFTFGYS	HTEFPYIYTRV	ISKDGFMDHP	VPITISDPIM	MHDFAITENY	AIFMDLPLLYF
CaCCD1-Coffea	ADKPYVLRVL	EDGDLQTLGL	LDYDKRLTHS	FTAHPKVPDF	TDEMFTFGYS	HTEFPYIYTRV	ISKDGFMDHP	VPITISDPIM	MHDFAITENY	AIFMDLPLLYF
PhCCD1-Petunia	ADKPYALKVL	EDGDLQTLGM	LDYDKRLKHS	FTAHPKVPDV	TDEMFTFGYA	HTEFPYIYTRV	ISKDGFMDHP	VPITISDPIM	MHDFAITENY	AIFMDLPLLYF
SlCCD1A-Solanum	ADKPYALKVL	EDGDLQTLGM	LDYDKRLTHS	FTAHPKVDV	TDEMFTFGYA	HTEFPYIYTRV	ISKDGFMDHP	VPITISDPIM	MHDFAITENY	AIFMDLPLLYF
SlCCD1B-Solanum	GDKPYVVKVL	EDGDLQTLGM	LDYDKRLKHS	FTAHPKVPDV	TDEMFTFGYS	QTEFPYIYTRV	ISKDGFMDHP	VPITIPASVM	MHDFAITENY	AIFMDLPLLYF

	301				350				400	
CsCCD1-Crocus	QPKEMVKGGR	LIFSFDATKK	ARFGVLPRYA	KDDSLIRWFE	LPNCFIFHNA	NAWEEGDEVV	LITCRLNPD	LDMVNGAVKE	KLEN.FKNEL	YEMRFNMKTG
ZmCCD1-Zea	RPKEMVKNGE	FIYKFDPTKK	GRFGILPRYA	KDDKLIWRFQ	LPNCFIFHNA	NAWEEGDEVV	LITCRLNPD	LDKVNQYQSD	KLEN.FGNEL	YEMRFNMKTG
AtCCD1-Arabidopsis	RPKEMVKEKK	MIYSFDPTKK	ARFGVLPRYA	KDELMIRWFE	LPNCFIFHNA	NAWEEDEDEVV	LITCRLNPD	LDMVSGKVKE	KLEN.FGNEL	YEMRFNMKTG
CmCCD1-Cucumis	KPKEMVKENK	LIFTFDATKK	ARFGVLPRYA	KDDLITQWFE	LPNCFIFHNA	NAWEEGDELV	LITCRLNPD	LDMVSGSVKE	KLEN.FSNEL	YEMRFNMKSG
RdCCD1-Rosa	RPKEMVKEGK	LIFSFDPTKK	ARFGVLPRYA	KDDLIRWFE	LPNCFIFHNA	NAWEEDEDEVV	LITCRLNPD	LDMVNGPIKK	KLDN.FKNEL	YEMRFNMKTG
<b>MtCCD1-Medicago</b>	RPKEMVKNKT	LIFSFDSTKK	ARFGVLPRYA	KDEKHIRWFE	LPNCFIFHNA	NAWEEDEEIV	LITCRLNPN	LDMVGGAVKE	KLDN.FANEL	YEMRFNMKTG
PsCCD1-Pisum	RPKEMVKNKT	LIFSFDSTKK	ARFGVLPRYA	KDDKHIRWFE	LPNCFIFHNA	NAWEEDEEIV	LITCRLNPN	LDVVGAVKE	KLDN.FSNEL	YEMRFNMKTG
PvCCD1-Phaseolus	RPKEMVKNKT	LIFSFDSTKK	ARFGVLPRYA	KDEQHIRWFE	LPNCFIFHNA	NAWEEDEDEVV	LITCRLQNP	LDNVGGTVQE	KLEN.FSNEL	YEMRFNMKTG
CmCCD1-Castanea	RPKEMVKGK	LIFTFDATKN	ARFGVLPRYA	KDELQIRWFE	LPNCFIFHNA	NAWEEDEDEVV	LITCRLQNP	LDMVNGVKE	KLEN.FINEL	YEMRFNMKTG
VvCCD1-Vitis	RPKEMVKEKK	LIFTFDATKK	ARFGVLPRYA	KNELHIKWF	LPNCFIFHNA	NAWEEDEDEVV	LITCRLNPD	LDLVGGDVKE	KLEN.FGNEL	YEMRFNMKTG
CaCCD1-Coffea	RPKEMVKDKK	LIFTFDPTKK	ARFGVLPRYA	KNDALIKWF	LPNCFIFHNA	NAWEEGDEVI	LITCRLQNP	LDMVSGIVK	KLEN.FSNEL	YEMRFNMKTG
PhCCD1-Petunia	RPKEMVKNQ	LAFTFDPTKK	ARFGVLPRYA	KSEALIRWFE	LPNCFIFHNA	NAWEEGDEVV	LITCRLPHD	LDMVNGEVKE	NLEN.FSNEL	YEMRFNMKSG
SlCCD1A-Solanum	RPKEMVKNK	LAFTFDATKK	ARFGVLPRYA	NNEALIRWFE	LPNCFIFHNA	NAWEEGDEVV	LITCRLVNP	LDMVNGAVKE	KLEN.FCNEL	YEMRFNMKSG
SlCCD1B-Solanum	RPKEMVKNKQ	LAYSFDPTKK	ARFGVLPRYA	KNESLIKWF	LPNCFIFHNA	NAWEEGDDVV	LITCRLQNP	LDAIKGTEKE	EQRDGFINEL	YEMRFNMKNG

	401				450				500	
CsCCD1-Crocus	AASQKQLSVS	AVDFPRINES	YTTRKQRYVY	GTILNITKV	KGIIKFDLHA	EPEAGKKKLE	VGGNVQGI	LGFGRYGSEA	VFVPRERGIK	SEEDDGYLIF
ZmCCD1-Zea	AASQKQLSVS	AVDFPRINES	YTGRKQRYVY	CTILDSIAKV	TGIIKFDLHA	EPESGVKLE	VGGNVQGIYD	LGFGRFGSEA	IFVPKHPGVS	GEEDDGYLIF
AtCCD1-Arabidopsis	SASQKQLSAS	AVDFPRINEC	YTGKKQRYVY	GTILDSIAKV	TGIIKFDLHA	EAEAGKRMLE	VGGNIKGIYD	LGEGRYGSEA	IYVPRETAE.	..EDDGYLIF
CmCCD1-Cucumis	LASQKQLSES	AVDFPRINES	YTGRKQRYVY	GTILDSIAKV	TGIAKFDLHA	EPETGKTKIE	VGGNVQGLYD	LGFGRFGSEA	IFVPRVPGIT	SEEDDGYLIL
RdCCD1-Rosa	LATQKQLSES	AVDFPRINES	YTGRKQRYVY	GTILDSIAKV	TGIVKFDLHA	APETGKTKIE	VGGNVQGLYD	LGFGRFGSEA	IFVPRVPGIT	SEEDDGYLIF
<b>MtCCD1-Medicago</b>	EASQKQLSAS	AVDFPRINES	YTGRKQRYVY	GTELDIAKV	TGIVKFDLHA	KPDSGKTKLE	VGGNVVGHYD	LGFGRFGSEA	VYVPRVPGTD	SEEDDGYLIF
PsCCD1-Pisum	EASQKQLSAS	TVDFPRINES	YTGRKQRYVY	GTILDSIAKV	TGIIKFDLHA	EPDSGKTKLE	VGGNVQGLYD	LGFGRFGSEA	VYVPRVPGTD	SEEDDGYLIF
PvCCD1-Phaseolus	EASQKQLSAS	TVDFPRINEN	YTGRKQRYVY	GTILDSIAKV	TGIIKFDLHA	EPDHGKTKLE	VGGNVQGLYD	LGFGKFGSEA	VYVPRVPGIE	SEEDDGYLVL
CmCCD1-Castanea	LASQKQLSAS	AVDFPRINES	YTGRKQRYVY	GTILDSIAKV	TGIIKFDLHA	EPDTGKTKLE	VGGNVLGIYD	LGFGRFGSEA	VFVPRVPGIT	SEEDDGYLIF
VvCCD1-Vitis	IASQKQLSAS	SVDFPRINES	YTGRKQRYVY	GTILDSIAKV	TGIIKFDLHA	EPDTGKSKLE	VGGNVQGI	LGVGRFGSEA	VFVPREPGIT	SEEDDGYLIF
CaCCD1-Coffea	LASQKQLSES	AVDFPRINES	YTGRKQRYVY	GTILDSIAKV	TGIAKFDLHA	EPETGKTKIE	VGGNVQGVFD	LGFGRFGSEA	IFVPRVPGIT	SEEDDGYLIF
PhCCD1-Petunia	AASQKQLSES	SVDFPRINEN	YTGRKQRYVY	GTILNSIAKV	TGIIKFDLHA	EPETGKQLE	VGGNVQGI	LGFGRFGSEA	VFVPSQPGTE	CEEDDGYLIF
SlCCD1A-Solanum	AASQKQLSES	AVDFPRINEN	YTGRKQRYVY	GTILNSIAKV	TGVIKFDLHA	EPETGKSQLE	VGGNVQGI	LGFGRFGSEA	VFVPSRPGTE	REEDDGYLIF
SlCCD1B-Solanum	VASQKQLSEA	AVDFPRINEN	YTGGKQRYVY	GTILNVAQI	TGVVKFDLHA	EPETGKTKLE	VGGNVPGIFD	LGFGRFGSEA	IFVPRVPGTE	CEEDDGYLIL

	501				550	
CsCCD1-Crocus	FVHDENTGKS	EVNVIDAKTM	SAEPVAVVEL	PNRVPGFHA	FFVTEEQLOW	QQTDV
ZmCCD1-Zea	FVHDENTGKS	EVNVIDAKTM	SADPVAVVEL	PNRVPGFHA	FFVTEEQLAR	QAEQ
AtCCD1-Arabidopsis	FVHDENTGKS	CVTVIDAKTM	SAEPVAVVEL	PHRVPGFHA	FFVTEEQLOE	QTLI~
CmCCD1-Cucumis	FVHDENTGKS	AVNVDAKTM	SSEPVAVVEL	PHRVPGFHA	FFVTEEQLOE	QGR~
RdCCD1-Rosa	FVHDENTGKS	AIHVLDAKTM	SGDPVAVVEL	PHRVPGFHA	FFVTEEQLOE	QAKF~
<b>MtCCD1-Medicago</b>	FVHDENTGKS	FVHVLDAKTM	SADPVAVVEL	PORVPGFHA	FFVTEEQLOE	QAKL~
PsCCD1-Pisum	FVHDENTGKS	FVHVLDAKRM	SAEPVAVVEL	PORVPGFHA	FFVTEEQLOE	QAKF~
PvCCD1-Phaseolus	FVHDENAGKS	FVHVLDAKTM	SADPVAVVEL	PNRVPGFHA	FFVTEEQLOE	QAKL~
CmCCD1-Castanea	FAHDENTGKS	SVNVIDAKTM	SPDPVAVVEL	PKRVPGFHA	FFVTEEQLOE	QGR~
VvCCD1-Vitis	FVHDEKTGKS	YVNVIDAKTM	SPDPVAVVEL	PNRVPGFHA	FFVTEEQLOE	QAKL~
CaCCD1-Coffea	FVHDESTGKS	AVNVDAKTL	SADPVAVVEL	PNRVPGFHA	FFVTEEQLEE	QAKL~
PhCCD1-Petunia	FVHDENTGKS	AVNVDAKTM	SAEPVAVVEL	PKRVPGFHA	FFVTEEQIQE	QAKL~
SlCCD1A-Solanum	FVHDENTGKS	AVNVDAKTM	SAEPVAVVEL	PKRVPGFHA	FFVTEEQIQE	QAKL~
SlCCD1B-Solanum	FVHDENTGKS	SVNVIDAKTM	SAEPVAVVEL	PKRVPGFHA	FFVTEEQIQE	QAKM~