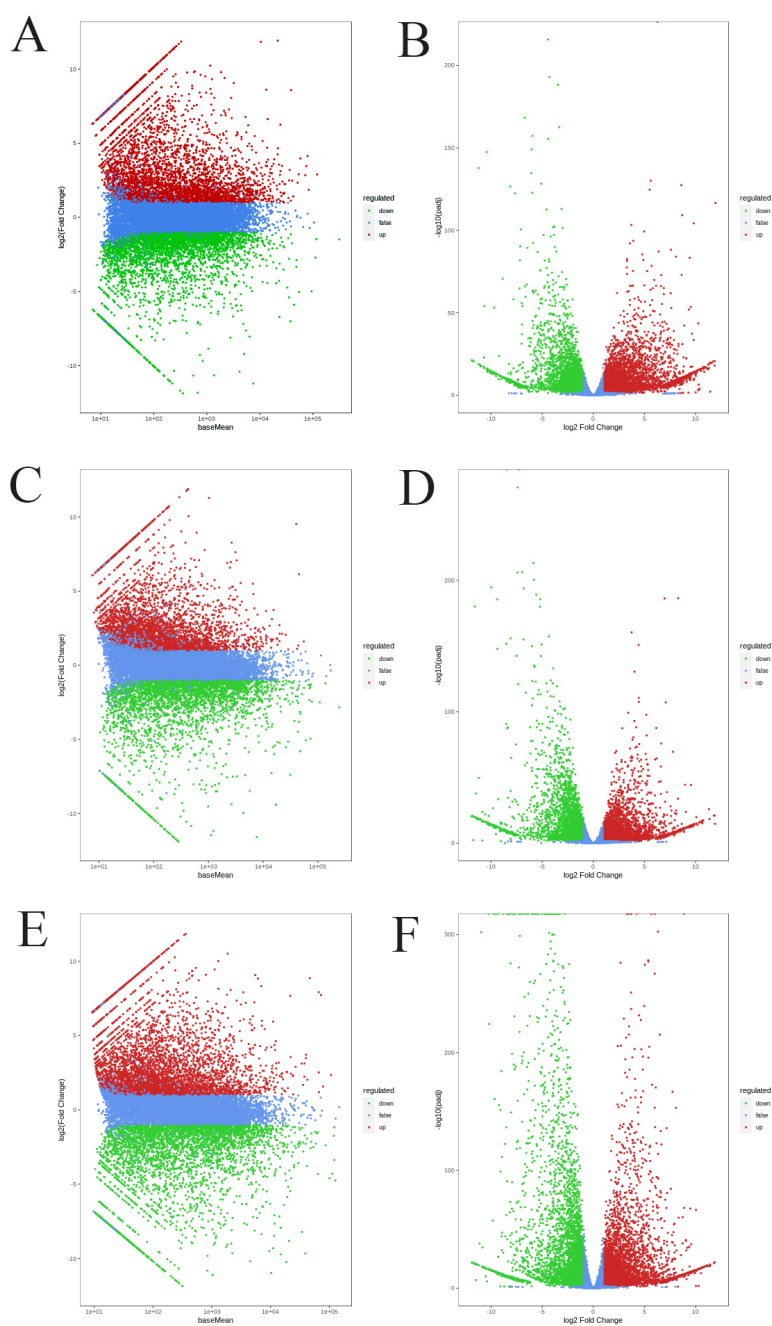
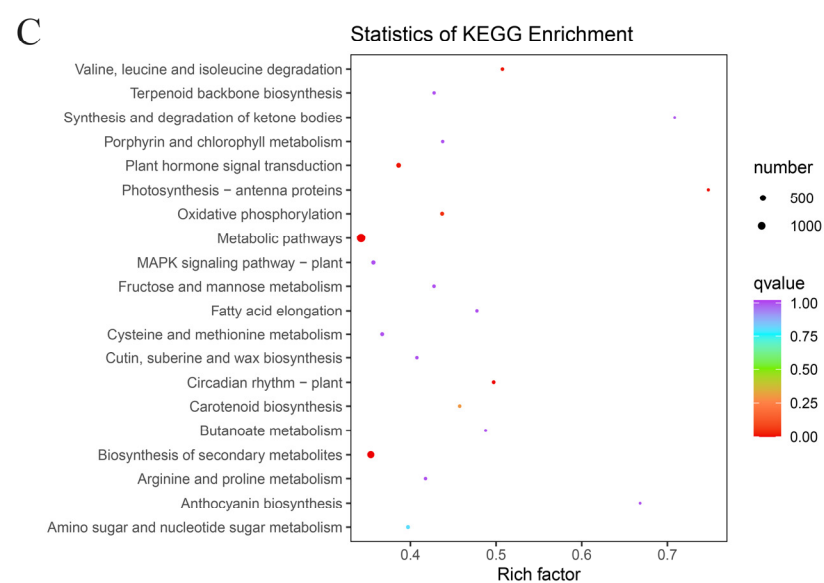
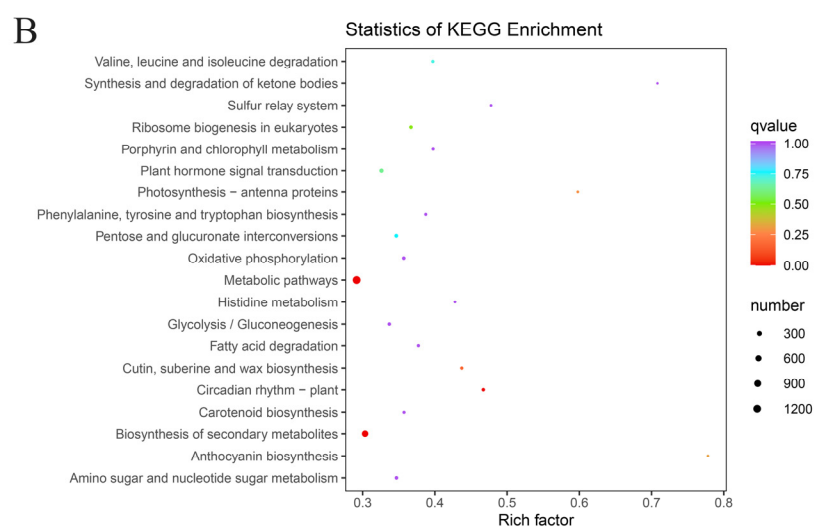
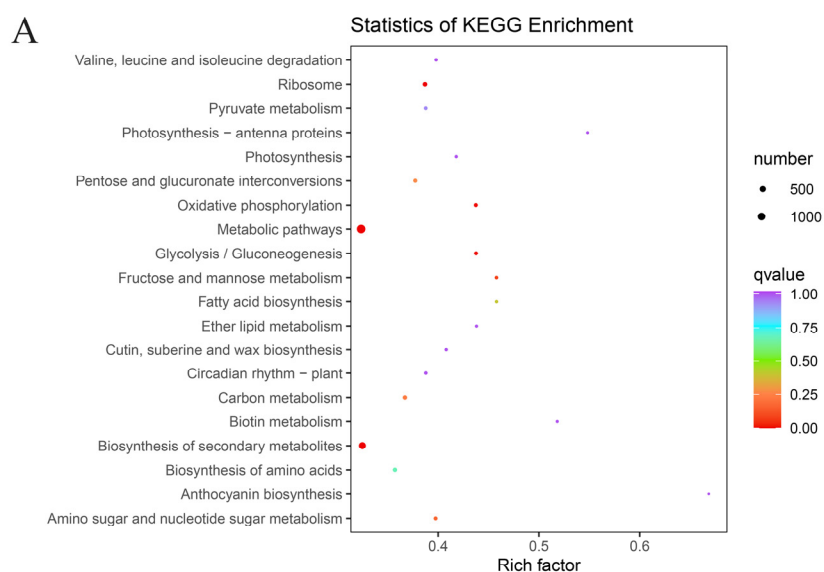


Supplementary Figure S1



Supplementary Figure S2



Supplementary Figure S3

PmCCD4 -----MDAFS--SSFLSTFTPTQNFSLSPAI-----ATPKLSSISSVRIEERPPSSPPASPSTKAPQP---PKTSPPLTTKARDY--N 72
 AtCCD4 -----MDSVSSSSFLSSTFSLHSLRRR-----SSSPTLLRINSVVEERSPTINPSDNNDRRKPKT-----LHNRNHTLVS 70
 NtCCD4 -----MDAFS--STFLSTLSQHPKSLSPN----YSPNTSSSPILKVSSVRIEERPQTTTTTTRTKPQEKPTP---SPYTPPKDTPKQRL--- 76
 MdCCD4 -----MDAFS--STFLSTLSQHPKSLSPN----YSPNTSSSPILKVSSVRIEERPQTTTTTTRTKPQEKPTP---SPYTPPKDTPKQRL--- 76
 OfCCD4 -----MDTSL--SSFLPKL--HPKYIFSPIPLSPPTSPHPQNSLNISSVRIEDKPQTTTTTTTSRRAPQPVKKQTPPPSPQQNTNRK--- 83
 OsCCD4 MQRICPAHCSVTHSLTMKSMRLSYIPPAASAAPQSPSYGKKKNASAAAPSSAAASTVLTSLPLVTTTTRTPKQTEQEDELQVAKTKTTRTVIATNNGRA--- 97

PmCCD4 NASTFSAAKKQ-----TDP-TLPAVIFNALDDIINNFTDPP-LRPSVDPKHVLNNFAPV-DELPPTECBTIHGSPPCL-DGAYIRNGPNPQYLPRGPF 163
 AtCCD4 SPPKL----RP-----EM--TLATALFTTVEDVINFTDPP-SRPSVDPKHVLSDNFAPVDELPPTECBTIHGTPLSL-NGAYIRNGPNPQYLPRGPF 157
 NtCCD4 -PTKSITTKKP-----VEP-SFPSVIFNAFDVFNFTDPP-LKPGVDPKYILSNFAPV-DELPPTECBTVVGSPPCL-DGAYIRNGPNPQYLPRGPF 166
 MdCCD4 NASTFTAAKQT-----VS--ALPAVIFNALDDIINNFTDPP-VKPSVDPRHVLNNFAPV-DELPPTECBTIHGSPPCL-DGAYIRNGPNPQYLPRGPF 129
 OfCCD4 -PSTPKT--RP-----TEPVSLPTTIFNVVDGFINTFDPP-LRPSVDPRYVLSDNFAPV-DELPPTECBTVVGSPPCL-NGAYIRNGPNPQYLPRGPF 172
 OsCCD4 APSQSRPRRRPAPAAAAAASLMTFCNALDEVINFTDPPALRPVADPRHVLNNFAPV-DELPPTECBTVVGSPPCL-NGAYIRNGPNPQYLPRGPF 196

PmCCD4 HIFDGDGMLHSVRI-----SKGRAVLCSRYVRYTYKYTIERDAGYPLPNVFSGNGLTASATRGALSAARVFT--QNPANGIGLANTSLAFFGNQLYALG 257
 AtCCD4 HIFDGDGMLHAIKI-----HNGKATLCSRYVRYTYKYTIERDAGYPLPNVFSGNGLTASVARGALTAARVLTGQNPANGIGLANTSLAFFSNRLEALG 252
 NtCCD4 HIFDGDGMLHSIKI-----SQSKATLCSRYVRYTYKYTIEREAGSPVFPNPVFSGNGLTASAARGAITAARAIAAGQNPANGIGLANTSLALFGGKLEALG 261
 MdCCD4 HIFDGDGMLHSVRI-----SGGRAVLCSRYVRYTYKYTIERDARHPLPNVFSGNGLTASATRGALSAARVLTGQNPANGIGLANTSLAFFGDRLYALG 224
 OfCCD4 HIFDGDGMLHSVRI-----SUGKATLCSRYVRYTYKYTIEREAGSPVFPNPVFSGNGLTASAARGALAAARVAGQNPANGIGLANTSLALIGGKLYALG 267
 OsCCD4 HIFDGDGMLHSVRI-----LSPASSGDDPVLCSRYVRYTYKYTIERDAGYPLPNVFSGNGLTASATRGALSAARVLTGQNPANGIGLANTSLAYFAGRLYALG 295

PmCCD4 ESDLPLYSLRITSN-GDIITLGRHDFDGKLFMSMTAHPKIDPDTCEAFAFRYGFLPPFLTYFRFANGHKQPDVPIFSMVTFSFLHDFAITKKYAIFFVFIQ 356
 AtCCD4 ESDLPLYAVRITES-GDIETLGRYDFDGKLFMSMTAHPKIDPDTCEAFAFRYGVPVPPFLTYFRFSAGKKQPDVPIFSMTSPSFLHDFAITKKHAIFFAIQ 351
 NtCCD4 ESDLPLYAVKAPD-GDIITLGRYDFDGKLFMSMTAHPKIDPDTCEAFAFRYGPMPPFLTYFRFEPNGTKTPDVPIFSMTSPSFLHDFAITKKHAIFFAIQ 360
 MdCCD4 ESDLPLYSLRITSN-GDIITLGRHDFDGKLFMSMTAHPKIDPDTCEAFAFRYGFLPPFLTYFRFSNGVKKQPDVPIFSMVTFSFLHDFAITKKHAIFFAIQ 323
 OfCCD4 ESDLPLYAVENQON-GDIYTEGRNDFDGKLFMSMTAHPKIDPDTCEAFAFRYGPMRPPFLTYFRFNADGKQPDVPIFSMTSPSFLHDFAITKKYAIFFFIQ 366
 OsCCD4 ESDLPLYAVRHPDTEVTHGRDFDGKLFMSMTAHPKIDPDTCEAFAFRYGVPVPPFLTYFRFPAGNKGADVPIFSVQPSFLHDFAITKKYAIFFFIQ 395

PmCCD4 IG--MNPIDMITKGASVGLLPSKVSRLGVIPRYAKDETEMWFDVPGENIHAHNAWDEED--ATVMVAPNVLSEHTLERMMLTHASVEKVRIDLKTG 452
 AtCCD4 LGMRMMLDLVLEGGSPVGTNGCTPRLGVIPRYAKDESEMWFVDPGENIHAHNAWDEDDGNSVVLTAIPNIMSHTLERMMLVHALVEKVKIDLVITG 451
 NtCCD4 IG--MNPLEFIT-GGSPVSSDSCHIPRLGVIPRYAKDESEMWFVDPGENIHAHNAWDEDDGDTIVMVAPNVLSEHTLERMMDIHASVEKVKIDLVITG 457
 MdCCD4 IG--LNLIDMITKRATPFGLLPSKVSRLGVIPRYAKDESEMWFVDPGENIHAHNAWDEDD--ATVMVAPNVLSEHVLRLVHLVHCTIVEKVRIDLKTG 419
 OfCCD4 IG--MNPMEEMA-GGSPVGANPGKVPRLGVIPRYAKDESEMWFVDPGENIHAHNAWDEDDGDTIVLVAPNVLSEHTLERMMLTHASVEKVKIDLVITG 463
 OsCCD4 IV--MKPMDVMVVGSGSPVGSPPGVRLGVIPRYATDESEMRFVDPGENIHAHNAWDEAGGEEELVLAAPNVLSEHALCHMLVHSCVEKVRINLRTG 493

PmCCD4 IVSRQPISTRNIDFAMNPAYVGRKNKYVYAAVGDMPKISGVVKLDVS--NVEHKECTVASRMFGPGCYGGEPEFFVAREPENPEADEDGCVVYVYVHDE 550
 AtCCD4 IVRRHPIISARNIDFAMNPAYVGRKNKYVYAAVGDMPKISGVVKLDVS--KGDRDCTVARRMFGSGCYGGEPEFFVARDPGNPEABEDDGYVYVYVHDE 549
 NtCCD4 IVSRQPISTRNIDFAMNPAYVGRKNKYVYAAVGDMPKISGVVKLDVSVAEADRRDCTVARRMFGSGCYGGEPEFFVAREPENPEADEDGCVVYVYVHDE 554
 MdCCD4 IVTRQPISTRNIDFAMNPAYVGRKNKYVYAAVGDMPKISGVVKLDVS--NVEHKECTVASRMFGPGCYGGEPEFFVAREPENPEADEDGCVVYVYVHDE 517
 OfCCD4 IVSRHPISSRNIDFAMNPAYVGRKNKYVYAAVGDMPKISGVVKLDVSVSDSDRCDCTVARRMFGSGCYGGEPEFFVAREPENPEADEDGCVVYVYVHDE 563
 OsCCD4 VVTRTPLAAGNDFDPMNPAYVGRKNKYVYAAVGDMPKISGVVKLDVSVSDSDRCDCTVARRMFGSGCYGGEPEFFVAREPENPEADEDGCVVYVYVHDE 590

PmCCD4 KAGESRFLVMDAKSPRFDIVAVRLPRRPVYGFHGLFVKESDNLK-- 596
 AtCCD4 VTGESKFLVMDAKSPFLSIVAAVRLPRRPVYGFHGLFVKESDNLK-- 595
 NtCCD4 KTGESRFLVMDAKSPNLDIVAAVRLPRRPVYGFHGLFVRESDLKLM- 601
 MdCCD4 KAGESRFLVMDAKSPOLDIVAAVRLPRRPVYGFHGLFVRESDL---- 560
 OfCCD4 KTGESRFLVMDAKSPNLDIVAAVRLPRRPVYGFHGLFVRESDLKLM-- 609
 OsCCD4 ATGENRFLVMDAKSPDLIVAEVQLGRVPYGFHGLFVTEAEIQSQHQ 638

Supplementary Figure S4