

>A0A1D6DH46 (*Triticum aestivum*) 379

MCGGAPLADVKVPTVTRKMTKATLWHEKKKPRHGGSGGRHFTGLGGRRGPGLDDNEEDFEADSGDSDLERLERTMVDE
KDDDDDEVVEIKSFAAVKRSLSQGFDGPSAKRKRKNQFRGIRQRPWGKAAEIRDPSK GARVWLGTFN SAEEAARAYD
VEARRIRGNKAKVNF PKESTVPQKRRRPAAPNAPKLSVAQEPSVMPSINNLANPNAFIYPSATFASNQPLALPDNM
SFVPARNSTAPVEAFVMNPNYSHQGSNSFGCSLDLEWDYDTKTPDIPSIAPISITIAEGAEFALAQSNAYNSVVITEAAE
SALAQSNTHNSVVPVHVIENNDVDFEAWTRFLMDDGVDEPIDSLLNFNVPQDVVVNMDLWSFDDMPMCGEFL

>A0A1D6D7Z2 (*Triticum aestivum*) 324

MCGGAPLADVKVPTVTRRMTKEALWPEKKKPRHGGSGGQRMGLGGRRGPGLDDNEEDFEADSGDSDLRLERSMVDE
KDGDDDEVSEIKSFAAVKSSLSQGFDGPSAKRKRKNQFRGIRQRPWGKAAKIRDPSK GARVWLGTFN SAEEAARAYD
VEARRIRGNKAKVNF PKEPTVPQKRRRPAAPKAPKQSV AHEPSVMSSINNLANPNAFIYPSAD FASNQPLALPDNV
SFV PAMNFVAPVEAFVMNPNYSDQGSNSFGCSLDLDWDYDTKTPDIPFIAPISITIAEEAESALAQSNAYNSVVI AEASE
SALAQSN TYNSVVPVPRVMENNDVDFEAWTRFLMDDSVDEPIDSLLNFNVPQDVVVNMDL

> A0A1D6AZV0 (*Triticum aestivum*) 385

MYGGASLADLEVPMVTQKVIEAILWPEKKKPRLGGSGDTRFMGLDGRRLSLDDNKEDFKAEFEFEADSGESDLDL
GHSGVDEKDDNKEVIKIKPVTA VKGQSLSQAKRKRKNKFRGIRQRPWGKAAEIRDPSK GVRVWLGTFN NAEAAARA
YDVEARKIYGNKANVNFPEEPTVPQKHRTRRAAPKAPKLSASREPIVNNLANPNAFIYPS TNFASNQPLALHENV SF
VPAMNSDAPVEASVMNLHSDQESNSFGYSNLGWN YDTRTPDISSTAPISTIADGVE SALVQSNPYNSV VIAERAESI
ALVQSN TYNSVPPSMENNDVDFVPWVRLMDDGVVESIDSLLNFDVPREVVGNM DIWSSDGMPCGNFSEGSKPI

> A0A1D6BD13 (*Triticum aestivum*) 385

MYGGVSLADLEVPMVTRKVT EASLWHNKKNPRLGGSGDMCFTGLGGRRGLGLDDNKEDFEADFEFEADSRDSDLDL
GLSGVDEKDDDEEVIEIKPVAAIKNQSLFQAKIKRKNKFRGIRQRPWGKAAEIRDPSK GVRVWLGTFN SAEEAARA
YDVEARRIYGNKANVNFPEEPIVPQKRRTRRAAPKAPKLSASREPTAIPVVNNLANPKAFVYPSAD FALNQSLALHE
NMSFVPAMNSDAPVEASVMNLHSDQGSNSFGYSEMGWNYDTKTPDISSTAPISTIADGVE SALVQSNPYNSV VTAEG
AESALVQSN TYNSVPPAMENNDVIDIVALVRLMDDGVVEPIDSLLNFDVQDVVGNM DIWSSDDMPMCGEFSEGS
KPCI

> A0A1D6AI85 (*Triticum aestivum*) 385

MYGGASLMDLEVSTVMRKVIEATLRPKKKTTPRPGSGDFEADYENFEADSGESDLDLGHSG
GVDEKDDDEEVIEIKPVAAVKRRSLSQAKRKRKNKFRGIRQRPWGKAAEIRDPSK GVRV
WLGTFKSAEEAARAYDVEARRIYGNKANVNFPEEPTVPQKRRTRRPAPKAPKLRASWEPT
AIPVVNNLANPNAFVYPSAD FASNQPLALHENV SFVPTMNSDGPVEASVMNLHSDQGSNS
FGYS DLGWN YDTKTPDISSTPISTIADGVE SALVQSNPYNSV VIAEGAESAALVQSN TY
NSTVPPAMENNDIDIVAWATLLMDDGVVKPIDSLLNFDVQDVSGNM DIWSSDDMPMCGE
FV

> A0A1D6BK68 (*Triticum aestivum*) 340

MCGGRQLADAKVPAVTRKVM AATLWNEKKKPRSDGVGRHFTGLGGRRRLRLDDDKEDFD
AEFKFEFANS GDSDL ELGPGGVAEKDDEEEVVEIKPFATIKRPLSHDSSSTMSMTCFDGP

SERPAKRKRKNQFKGIRQRPLGKWAAEIRDPSKGVVRVWLGTFNSAEEAARAYDVQALRIH
GKKAKVNFPEEPAVQEPKAPKPSATQEPVTPAVNNPANTNAFMYP SADFASNQPLIQLD
NVPFVPTMNYVAPVEALAMNMYFGEGSNSFGWSDLGWEYDIKTPYISSMAPVSTIAEGAE
CAPVHSNTYNSMVPPVMENDVVDNMDLWNFDDMPICDEF

> **A0A1D6CP09** (*Triticum aestivum*) 359

MCGGRQLEDAEAPAVRRKVMATTLWTEKKKPRRSDGVGRHFTGLGGCGRRLRDDNEEDFD
AEFKFEANSRSDMELGPGGVVEKDDEEEVTEIKPFAAIKRSLSHDDL SIMSTNVFDGP
SERPAKRKRKNQFKGIRQRPSGKWAAEIRDPSKGVVRVWLGTFNSAEEAARAYDVEALRIH
GKKAKVNFPEEPAVQEPKAPKNAAQEPVTPAVNNPANTNAFVYPSTDFASSQPLIQLD
NVPFVPTMKYVAPVEALAMNMYSGQGSNIFGWSDLGWEYDIKTPYISSMAPISTIAEGAE
STLVQSNTYNSVVIIVEGAEFALVESNTYNSMVPLVMENDVVDNMDLWNFDDMPICDEF

> **W5H072** (*Triticum aestivum*) 398

MCGGAILKDLKVPAPTRKVTAAVLWPEKNKPKRADGVARRLAGLGRRGGLGLDDGDVDFE
ADFEFEADSGSDVELGRAGVAGKGDGHVVEIKPLFAVKRSLSQDDLSTMTTAGFDGP
AQRS AKRKRKNEFRGIRQRPWGKWAAEIRDPSKGVVRVWLGTFNSAEEAARAYDVEARRIR
GKKAKVNFPEELTVHQRRACPAAPKVPKSSAAQEPVTPAVNNLANPNAFVYPPADFAS
KQPLVQPDNVPYVPAINSAAPVEAPVMNMYSDQGSNSFGCSDLGWEYDTKTPDISSIAPI
STIAEGTESALLQSNTYNPAVIAEGAESALVQSNTYNSVPPVMENNAVD FEPWMRFLVD
DGVDEPIDSLNFDVDPQDVVGNMDLWSFDDMPICGEIF

> **W5GAN0** (*Triticum aestivum*) 398

MCGGAILKDLKVPAPARKVTAAVLWPEKNKPKRADGGGWRLAGLGRRGGRGLDDGEEDFQ
ADFEFEADSGSDVELGRAGVAGKGDGDEVEIKPFAAVKRSLSQDDLSTMTTAGFDGP
AQRS AKRKRKNEFRGIRQRPWGKWAAEIRDPSKGVVRVWLGTFNSAEEAARAYDVEARRIR
GKKAKVNFPEEPTVPQKRRACPAAPKVPKSSVAQEPVTPAVNNLANPNAFVYPSADFAS
KQPLVQPDNMPFVPAINSAASVEAPVMNMYSDQGSNSFGCSDLGWEYDTKTPDISSIAPI
STIAEGTESAVLQSKTYNPAVIAEGAESAPVQSNTYNSVPPVMENNAVD FEPWMRFLLD
DGVDEPIDSLNFDVDPQDVVGNMDLWSFDDMPICGKIF

> **A0A1D6S8W8** (*Triticum aestivum*) 398

MCGGAILKGLKVPAPARKVTAAVLWPEKNKPKRADGGARHLAGLGRRGGLGLDDGEADFE
ADFEFEADSGSDQELGRGGVAEKDGDDEVETKPF AAVKRSLSQDDLSTMTTAGFDGP
AQRS AKRKRKNEFRGIRQRPWGKWAAEIRDPSKGVVRVWLGTFNSAEEAARAYDVEARRIR
GKKAKVNFPEEPTVPQKRRACPAAPKVPKSSAAQEPVTPAVNNLANPNAFVYPSADFAS
KQPLVQPDNVPFVPAINSAAPVEAPVMNMYSDQGSNSFGCSDLGWEYDTKTPDISSIAPI
STIAEGAETALLQSNTYNPAVIAEGAESAPVQTNTYNSVPPVMENNAVD FEPWMRFLLD
DGVDEPIDSLNFDVDPQDVVGNMDLWSFDDMPICGEIF

> **A0A1D6ATH9** (*Triticum aestivum*) 408

MENHYEGLEVESGSDSLELARDGVADKDNHKKVVEIKPLAAVRMSLSKGRGDDYEKILVK
MSQVCSTILTTLKLPTVMRRVVEAVLWPKKKPWCCGGSRGFMGLGGLGVELGFDNDDV

GLKANFKELDDLSTMTTDFDGPQRS AKRKS KNQFMGIRQRSRARWGAEIRDPIKGVRLW
LGTFN SAEEAARAYNVEARRIHGKKAKINFPEEPKLPQKSRAPPASPKVPKPSAAQEHSF
IPAFNNLVNQNAFVYPSAHFASKQQLVQPENVPFVPPMSTIAPVEAPVMNMYSDRGSNSF
GFSKLGWKYHTKTPDISSIAPISTIAEGAEPVLVENNTYNSLVPPVMENN VVNFEPWMRY
LMDDSVDE MIDSL LNFDVPRDVVSNRTFGASMP CPSVANFSEGSKPCI

> **A0A1D6CLS2** (*Triticum aestivum*) 331

MCGRALLADV KVPVTRKVM ETVWPEK KKHRRGGGGRRFTGHSGHRGLELYNEEEDFE
ADFEKFKADSRDYDL DLGHGGVAEKDDDDEEVEIKPLVAVKRSLSHDDLSTMPTASFDGP
SERPAKRKRKNQINVI RRRPLGKWAAEIRDPSKGV RVWLGTFN SAKKAARAYDAEAHKIR
GKKA EVNFPEEPTGSAD FASNQPPVPAMNSAAPIEVPVMDIYSDQGSNSFCCSNLDWEYD
TKSLDISSIAPISTIAEGA KSAVVKNN TYNSLVPLFMENNAINFEPWMRYLMDDSVDELI
DSL LNFDV PQDVVGNMDLWSFDDM PICGKFF

> **Q84LJ6** (*Triticum aestivum*) 355

MCGGAILSDIIPPPRRATGGNVWRADKKRRARPDA AAGRPRRVPEEEFQEEESDAEF EAD
FEGFVEAEEESDGEAKPFPVRRSGFSGDGLKATAAGDDDCASGS AKRKRKNQFRGIRRRP
WGKWAAEIRDPRKGVRAWLGTYN SAEEAVRAYDVEARRIRGKKAKSISQKKLPWLLSKRC
ATSVKVP EFNTEQKPV LNTMG NADVSCPAVDYTLNQQFVQPQNMSFVPTVNAVEAPFMN
FSSDQGSNSFSCSDFSWENDIKTPDITSVLASIPTSTEVNESAF LQNNGINSTVPPVMGD
ANVDL AYLEPYMKFLMDDGSD EIDSILS CDV PQDVVGNMGLWTFDDMPLSAGFY

> **Q7XY26** (*Triticum aestivum*) 355

MCGGAILSDIIPPPRRATGGNVWRADKKRRARPDA AAGRPRRAPEEEFQEEEGDAEF EAD
FEGFVEAEEESDGEAKPFPVRRSGFSGDGLKATAAGDDDCASGS AXRKRKNQFRGIRRRP
WGKWAAEIRDPRKGV RVWLGTYN SAEEAARAYDVEARRIRGKKA EVNFPEEAPMAPQQR
CATAVKVP EFNTEQKPV LNTMG NADVSCSAVDYTLNQQFVQPQNMSFVPTVNAVEAPFMN
FSSDQGSNSFSCSDFSWENDIKTPDITSVLASIPTSTEVNESAF LQNNGINSTVPPVMGD
ANVDLADLEPYMKFLMDDGSD EIDSILS CDV PQDVVGNMGLWTFDDMPLSAGFY

> **Q84LJ7** (*Triticum aestivum*) 332

MCGGRHPLRHHPAAGRPCRAPEEEFQEEEGDAEF EADFEGFVEAEEESDGEAKPFPVRRS
GFSGDGLKATAAGDDDCASGS AKRKRKNQFRGVRRRPWGKWAAEIRDPRKGV RVWLGTYN
SAEEAARAYGVEARRIRGKKAKVNFPEEAPMAPQQR CATAVKVP EFNTEQKPV LNTMGNA
DVYSCSAVDYTLNQQFVQPQNMSFVPTVNAVEAPFMNFSSDQGSNSFSCS DLSWENDIKT
PDITSVLASIPTSTEVNESAF LQNNGINSTVPPVMGDANVDLADLEPYMKFLMDDGSD E
IDSILS CDV PQDVVGNMGLWTFDDMPLSAGFY

> **Q2TN80** (*Triticum aestivum*) 355

MCGGAILSDIIPPPRRATGGNVWRADKKRRARPDA AAGRPRRVPEEEFQEEEGDAEF EAD
FEGFVEAEEESDGEAKPFPVRR TGFSGDGLKATAAGDDDCASGS AKRKRKSQFRGIRRRP

WGKWAAEIRDPRKGVRVWLGTYN SAEEAARAYDVEARRIRGKKAKVNFPEEAPMDPQORC
ATSVKVPEFNTEQKPV LNTMGN TDVYSCPAVDYTLNQFVQPQNMSFVPTVNAVEAPFMN
FSSDQGSNSFSCSDFSWENDIKTPDITSVLASIPTSTEVNESAF LQNNGINSTVPPVMD
ANVDLADLEPYMKFLMDDGSDESIDSILSCDVPQDVVGNMGLWTFDDMPLSAGFY

> **TaERF6** (*Triticum aestivum*) 353

MCGGAILSDIIPPPRRATGGNVWRADKKRRARADAAAGRPRRAPEEFEEEGDAEF EADFE
GFVEAEEESDGEKPFVRRSGFSGDGLKATAAGDDDCASGS AKRKRKNQFRGIRRRPWG
KWAAEIRDPRKGVRVWLGTYN SAEEAARAYDVEARRIRGKKAKVNFPEEAPMAPQORCAT
SVKVPEFNTEQKPV LNTMGNADVYSCPAVDYTLNQFVQPQNMSFVPTVNAVEAPFMNFS
SDQGSNSFSCSDFSWENDIKTPDITSVPAS IPTSTEVNESAF LQNNGINSTVPPVMDAN
VDLADLEPYMKFLMDDGSDESIDSILSCDVPQDVVGNMGLWTFDDMPLSAGFY

> **A0A1D6D258** (*Triticum aestivum*) 353

MRATHPAPQQRKARSPSSSHTHTHQHTNRPVSSRKRFTLSLSFRLALPAVPRAPAAMC
GGAILSDIIPPPRRATGGNVWRADKKRRARPDAAAGRPRRAPEEFQEEEGDAEF EADFE
GFVEAEEESDGEAKPFVRRSGFSGDGLKATAAGDDDCASGS AKRKRKNQFRGIRRRPWG
KWAAEIRDPRKGVRVWLGTYN SAEEAARAYDVEARRIRGKKAKVNFPEEAPMAPQORCAT
AVKVPEFNTEQKPV LNTMGNADVYSCSAVDYTLNQFVQPQNMSFVPTVNAVEAPFMNFS
SDQGSNSFSCSDFSWENDIKTPDITSVLAS IPTSTEVNESAF LQNNGINSTVPPVMDAN
VDLADLEPYMKFLMDDGSDESIDSILSCDVPQDVVGNMGLWTFDDMPLSAGFY

> **Q8H0K1** (*Triticum aestivum*) 349

MCGGAILSDIIPPPRRPAGGRLWQADRKKRRAGPRRVPEEEPEEEAEEGDED FEADFEFGF
VDEESDGEVKKPFARRSGFSGDGLKATAAGEYDCASGS AKRKRKNQFRGIRRRPWGKWAA
EIRDPRKGVRVWLGTYN SAEEAARAYDVEARRIRGKKAKVNFPEEAPMAPQORCATAVKV
PEFNTEQKPV LNTMGNADVYSCSAVDYTLNQFVQPQNMSFVPTVNAVEAPFMNFS
SDQGSNSFSCSDFSWENDIKTPDITSVLAS IPTSTEVNESAF LQNNGINSTVPPVMDAN
VDLADLEPYMKFLMDDGSDESIDSILSCDVPQDVVGNMGLWTFDDMPLSAGFY

> **A0A1D5YG50** (*Triticum aestivum*) 377

MCGGAILAGFIPPSAAAKAAA KKKQQQRSVTADSLWPLQKKA ADEEDFEADFRE FERD
SSDDDAVEEVPPPPAAAGFAFAAAA EVAPPAPARLDAVQRDGPAAKQVKRVRKNQYRGI
RQRPWGKWAAEIRDPSKGV RVWLGTYDTAEAAARAYDAEARKIRGKKAKVNFPE DAPTQ
KSTLKPTAAKS AKLAPPKACEDEPFNHVSRGDNDLFAMFAFN DKKVPAKPAESVDSL LP
VKLKPPTETFGMMLSDQSSNSFGSTDFGW DDEAMTPDYTSV FVPNAAMPAYVEPAYLQG
GAPKRLRNNFGVAVLPQNGAQDIPAFDHEMKYSLPYVESSSDGSMDSL LLLNGAMQNGAS
SGDLWSLDEL FMAAGGY

WGKWAAEIRDPRKGVVRVWLGTYNsAEeAArAYDVEARRIRGKKAKVNFPEEAPMAPQQRc
ATSVKVPeFNTEQKpVLNTMGnADVySCPavDYTLNQQFVQPQnMSFVPTVNAVEAPFMN
FSSDQGSNSfSCSDFswENDIKTPDITsvLASIPTSTEVNESaFLQnNGINSTVPPVMGD
ANVDLADLEPYMKFLMDDGSDESIDSiLScDVLQDVIgNmGLWTFDDMPLSAGFY

>T1NAC4 (*Triticum urartu*) 394

MCGGASLADVKVPTVTRKVKKTALWPEKKKPRCGSGDrrFTGLGEHGVDLDDNKDYEA
DFKEFEANSGSDLELGRSTVDEKDDDEAVEIKPFVAVKRSLsQGIRPGTMtTAGFDGTS
AKRKRKNQFRGIRQRpWGKWAveIRDPSKGarVWLGTfNSAEeAArAYDVEAHRIRGNKS
KVNFpKEPTVPQERRARPTTLKAPKLCVAQEPsVMPSVNNLANPNASVYPtDFASnQPL
DLpDNVsfVPTMNSTSLVEAFIMNLYSDQGSNSfGCSDLDYyyDTKTPDIPSIAPISTIV
EGAESTLVQgNTYNpVVIAGAKSALAQsNTYNSMVPpVRENKDVDfEALTRFLMDDGMD
EPIDSLlNFYVPRDvVGNMDLWSfDDMPMcGKI f

>M7ZS74 (*Triticum urartu*) 394

MYGGASLMDLEISTVTRKVTEATLRPKKKTPrPGSGDFEADYENFEADYGDSDLDLGHs
GVDEKDDDEEVIEIKPVAAVKRRSLsQAKRKRKNKFRGIRQRpWGKWAveIRDPSKGVrV
WLGTFKSAEAArAYDVEARRIYGnKANVNFPEEPTVPQRRTRCPAPKAPKLRSWEPT
AIPVNNLANPNPFVYPSANfASnQPLALHENVSfVPTMNSDGPVEASVMNLHSDQGSNS
FGYSDLGWNYDTKTPDISSTPISTIADGVESALVQSNPYNSVVIAGAESALVQsNTY
NSTVPPAMENNGIDIVAWATLLMDDGVVEPIDSLlNFdVpQDVSGNMdIGSSedMTMcGE
FV

> M7YUE1 (*Triticum urartu*) 369

MCGGAILKDLKVPAPARRGGRGLDDGEEDFQADFEFEADSGDSdVELGRAGVAGKDGDD
EVVEIKPFAAVKRSLsQDDLSTMTTAGFDGPAQRsAKRKRKNefRGIRQRpWGKWAveIR
DPSKGVrVWLGTfNSAEeAArAYDVEARRIRGKKAKVNFPEEPTVPQRRACPAAPKVPK
SSVAQEPTVIPAVNNLANPNafVYPSADfASKQPLVQPDNMPFVPAInSAASVEAPVMNM
YSDQGSNSfGCSDLGWEYDTKTPDISSIAPISTIAEGTESAVLQSKTYNPAVIAEGAESA
PVQsNTYNSVVPpVMENNAVDfEPWMrFLLDdGVDEPIDSLlNFdVpQDVVGNMDLWSfD
DMPICGKI f

> T1MVQ2 (*Triticum urartu*) 305

MENHYEEFEVESGDSDLELGRDGVADKDNHkVVEIKSLAAVRMSLskDDLSTMTTNDVD
GSAQRsAKRKSknQFMGIRQRsrARWGAEIRDPIKGVRLWLGTfNSAEeAArAYDVEARR
IHGKKAKINfPEEPKLPQKSRAPPASPKVPKPSAAQEHsfIPAFNNLVNQNafVHPSAHf
ASKQPLVQpENVPFVPPMSTICpVEAPVMNMYSdQGSNSfGFsKLGWkyHTKTPDISSIA

PISTIAEGAEPVLVKNNTYNSLAPPIMENNVVNFEPWMRYLMDDSVDEMIDSLNFDVPR
DVISN

> **M7ZUV6** (*Triticum urartu*) 313

MAVEAAVAGRGSRRGGSYRKAVKRSQRGGYGQKINRLIFISLLHSDGLKATAAGDDDCAS
GSAKRKRKNQFRGIRRRPWGKWAAEIRDPRKGVRVWLGTYN SAEEAARAYDVEARRIRGK
KAKVNFPEEAPMAPQQRCA TSVKVPEFNTEQKPV LNTMGHADVYSCPAVDY TINQQFVQP
QNMSFVPTVNAVEAPFMNFS SDQGSNSFSCSDFSWENDIKTPDITSVLASIPTSTEVNES
AFLQNNGINSTVPPVMGDANVDLADLEPYMKFLMDDGSDESIDSILSCDVPQDVVGNMGL
WTFDDMPLSAGFY

> **A0A068EE87** (*Triticum turgidum*) 355

MCGGAILSDIIPPPRRATGGNVWRADKKKRARADAAAGRPRRVPEEEFQEEEGDAEF EAD
FEGFVEAEEESDGEAKPFPVRR TGFSGDGLKATAAGDDDCASGS AKRKRKSQFRGIRRRP
WGKWAAEIRDPRKGVRVWLGTYN SAEEAARAYDVEARRIRGKKAKVNFPEEAPMAPQQRCA
ATSVKVPEFNTEQKPV LNTMGNADVPCPAVDYTLNQQFVQPQNMSFVPTVNAVEASF MN
FSSDQGNNSFSCSDFSWENDIKTPDITSVLASIPTSTEVNES AFLQNNGINSTVPPVMGD
ANVDLADLEPYMKFLMDDGSDESIDSILSCDVPQDVVGNMGLWTFDDMPLSAGFY

> **A0A068EFX0** (*Triticum turgidum*) 354

MCGGAILSDIIPPPRRATGGNVWRADKKKRARADAAAGRPRRAPEEEFEEEGDAEF EADF
EGFVEAEEESDGEKPFVRRSGFSGDGLKATAAGDDDCASGS AKRKRKNQFRGIRRRPW
GKWAAEIRDPRKGVRVWLGTYN SAEEAARAYDVEARRIRGKKAKVNFPEEAPMAPQQRCA
TSVKVPEFNTEQKPV LNTMGNADVYSCPAVDY TINQQFVQPQNMSFVPTVNAVEAPFMN F
SSDQGSNSFSCSDFSWENDIKTPDITSVLASIPTSTEVNES AFLQNNGINSTVPPVMGDA
NVDLADLEPYMKFLMDDGSDESIDSILSCDVLQDVIGNMGLWTFDDMPLSAGFY

> **C5Z5Y3** (*Sorghum bicolor*) 358

MCGGAILSDIIPPPRRVTAGHLWPESKKPRRGAGARRRAGPPVEEEEEEEEDFEADFEV
FEVESGESELESEDEAKPFAAPRTR SALPRDGLNTSAVVVDGPAANSVKRKRKNQFRGIR
RRPWGKWAAEIRDPRKGVRVWLGTFN SPEEAARAYDAEARRIRGKKAKVNF PDEVSTIPQ
KHRAGPTPLKVP EMDFE EKPIIKPAVNNMTNSNAYHYPPVDHNIPEPFMHTQNMSFAPFV
NSAAPIQE PFVNLSSDQGSNSFSCSDFSL ENDT RTPDITSVVVGESAFVQNTGP AVV PPL
MGNASVDLTELDPYMNFLMDSGSEDSINTLLSCDGSQDVVSNMDLWSFDDMPMSAGFY

> **A0A1B6QCP0** (*Sorghum bicolor*) 390

MCGGAILSGFIPPSGVAAAAAAKKKQQQGRRTADLLWPGPGKKGALPQEEEDDFEADF
REFERGLSEDDDDVDGAGEGGDDEVQELAPPEPVRFAFAAAKAPRPAVDGVMTPKDVQGD
RPTANSVKRNRKNQYRGIRQRPWGKWAAEIRDPSKGVVWLGTYNTAEAAARAYDAEARK
IRGKKAKVNFPEVPGAQKSTAKPTDSNATKLAPPPKACADEVFSNLNNDNNDLFAMFAF
NDNKVPVKPAEVASFPLPAVKPLVPSKRSATNMLSDQNSNSYGSDDFGWDDDTMTSGYTFA
PNNAI PASYMGGESKMRMNNYGVAMFQNGAPSLAQVMPGFDPEMNYQPLPYVESSSSD
ASMSLLPQDGASNGDIWLSLELLMAAGAY

> **C5XTP7** (*Sorghum bicolor*) 368

MCGGAILDDLREPELRRVTDRDIWQKKKPKRGGGGRRSFAAEDHEDFEADFADFEADSG
DSDLELGEADDDVVEIKPFAAKGTFSGDGLSTMTTADYDAPVARSAKRKRKNQYRGIRK
RPWGKWAAEIRDPPQKGVVWLGTFNSPEEAARAYDAEARRIRGKKAKVNFDPAPAVGQKR
RSGSASAKAPKSSVEQKPVVKAPMTNLANTNASFYQSVNYPSPNNPFVQHANMPFVPAMNF
TASVEDPIMNLHSDQGSNSFGCSDLAWENDTKTPDITSIAPISTIAEGDESFAVNSNSNS
SMLPPVLENSAVDFTDGLTDLESYMRFLLDGGASDSVDSLNLNLDGSQDVGSNMDLWSFDD
MPIAGDFF

> **M8B834** (*Aegilops tauschii*) 375

MCGGAPLADVVPVTRKMTKATLWHEKKKPRHGGSGGRHFTGLGGRRGPGLDDNEEDFE
ADSGDSDLELERTMVDEKDDDDDEVVEIKSFAAVKRSLSQGFDGPSAKRKRKNQFRGIRQR
PWGKWAAEIRDPSKGVVWLGTFNSAEEAARAYDVEARRIRGNKAKVNFPEKSTVPQKRR
ARPAAPNAPKLSVAQEPSVMP SINNLANPNAFIYPSATFASNQPLALPDNMSFVPAMNST
APVEAFVMNPNYSHQGSNSFGCSLEWDYDTKTPDIPSIAPISTIAEGAEFALAQSNAYNS
VVITEAAESALAQSNTHNSVVPVHVIENNDVDFEAWTRMSLSTWTS GASMTCPVANFYEG
FTHVYRDKRKNKTMGD

> **XP_020195166.1** (*Aegilops tauschii*) 388

MCGGAPLADVVPVTRKMTKATLWHEKKKPRHGGSGGRHFTGLGGRRGPGLDDNEEDFEADSGDSDLEL
ERTMVDEKDDDDDEVVEIKSFAAVKRSLSQDDLSTMTTAGFDGPSAKRKRKNQFRGIRQRPWGKWAAEIRD
PSKGVVWLGTFNSAEEAARAYDVEARRIRGNKAKVNFPEKSTVPQKRRARPAAPNAPKLSVAQEPSVMP
SINNLANPNAFIYPSATFASNQPLALPDNMSFVPAMNSTAPVEAFVMNPNYSHQGSNSFGCSLEWDYDTK
TPDIPSIAPISTIAEGAEFALAQSNAYNSVVITEAAESALAQSNTHNSVVPVHVIENNDVDFEAWTRFLMD
DGVDEPIDSLNLFNVPQDVVVNMDLWSFDDMPMCGEFL

> **NIR3R2** (*Aegilops tauschii*) 410

MCGGAPLADVVPVTRKVTKAALWPEKKKPRHGSNEGRRFTGLGGRRGHGVDDNEEDFE
AEMEDFEVESGSDSDELRRTRVDEKDDHNEVEIKSFAAAKSSLSQVIDYRTRKRLCDWFG
KDDLSTMTTAGFDGSSAKRKRKSQFRGIRQRPWGKWAAEIRDPSKGVVWLGTFNSAEEA
ARAYDVEARRIRGNKAKVNFPEKELIIPQKRRARPAAPKSPKLSVAPEPSVMP SVNNLANP

NAFIYPSANFASNQPLALPDNLSFVHAMNSDGPVEASVMNSYSDQGINSFSFSLEWDYD
TKNPDIPSIAPISTITEGAESALAQSNAYNSVVIAGGAESALAQSNNTNLLVPHVMENND
VDFEAWTRFLIYDGVDEPIDSLNFDVPRDVIIGNMDLWSFDDMPMCGEFF

>P7WEF7 (*Aegilops tauschii*) 389

MYGGVSLADLEVPMVTRKVTPEARLWHNKKNPRLGGSGDMRFTGLGGRRGLGLDDNKEDFE
ADFEFEADSRDSDLGLSGVDEKDDDEEVIEIKPVAAIKNRSLFQAKIKRKNKFRGIR
QRPWGKWAAEIRDPSKGVVWLGTFNSAEAAARAYDVEAHRIYGNKANVNFPEEPIVPQK
RRTRRAAPKAPKLSASREPTAIPVVNNLANPKAFVYPSADFASNQSLALHENLSFVPAMN
SDAPVEASVMNLHNSQGSNSFGYSEMGNWYDTKTPDISSTAPISTIADGVESALVQSNPY
NSVVTAEGAESAALVQSNTYNSVPPAMENNDVDIVALVRLMDDGVVEPIDSLNFDV
QDVVGNMDIWSDDMPMCGEFFEGSKPCI

> R7W6S9 (*Aegilops tauschii*) 359

MCGGRQLEDAEAPAVRRKVMATTLWTEKKKPRRSDGVGRHFTGLGGCGRLRLDDNEEDFD
AEFKFEANSGLSDMELGPGGVVEKDDEEEVTEIKPFAAIKRSLSHDDL SIMSTNVFDGP
SERPAKRKRKNQFKGIRQRPWGWAAEIRDPSKGVVWLGTFNSAEAAARAYDVEALRIH
GKKAKVNFPEEPAVQEPKAPKPNAAQEPTVTPAVNNPANTNAFVYPSTDFASSQPLIQLD
NVPFVPTMKYVAPVEALAMNMYSGQSNIFGWSDLGWEYDIKTPYISSMAPISTIAEGAE
STLVQSNTYNSVIVEGAEFALVESNTYNSMVPLVMENDVVDNMDLWNFDDMPICDEFF

> M8B9E4 (*Aegilops tauschii*) 398

MCGGAILKDLKVPAPTRKVTAAVLWPEKNKPKRADGVARRLAGLGRRGGLGLDDGDVDFE
ADFEFEADSGSDVELGRAGVAGKGDHVVVEIKPLFAVKRSLSQDDLSTMTTAGFDGP
AQRSAKRKRKNFRGIRQRPWGWAAEIRDPSKGVVWLGTFNSAEAAARAYDVEARRIR
GKKAKVNFPEELTVHQRRACPAAPKVPKSSAAQEPTVIPAANNLANPNFVYPSADFAS
KQPLVQPDNVPYVPAINSAAPVEAPVMNMYSDQGSNSFGCSDLGWEYDTKTPDISSIAPI
STIAEGTESALLQSNTYNPAVIAEGAESALVQSNTYNSVPPVMENNAVDFEPWMRFLVD
DGVDEPIDSLNFDVQDVVGNMDLWSFDDMPICGEIF

> M8D7G5 (*Aegilops tauschii*) 392

MLRGRRRAWGQAWLRHDDEAFKAEFEDFDADSGYFDLDCGHGVTRRVVEALLWPEKKKPR
QRGGRSFCVGLDGLGVKLGFDMTTRPSRPNLRTSTPTQVVNLKHYFDDLSTRASAGFDG
HTHMPAKRKRKNQFRGIRQRPWGWAAEIRDPIK GARVWLGTFDSAEAAARAYDVEARRI
RGKKARLNFPEPTIPQKCHALHVIPKVPKSTTQEHSEFIPAANNLANRNDVYPSAYST
SSQPLVQLDNMPFVVPAMGSVTPVEVPAMNMYDRRSNTFGCSMLGREYYTKTPNIISSIAPI
STIAEGEGSAPIKSNSTNSVVLPMENNGVNLEPWMRYLMDDSVDELINSLNFDVPRD
VVGNMDFVASMTCPSMVNF SERTKPYISGKRE

>I1IFK4 (*Brachypodium distachyon*) 394

MCGGAILTDLKRPPAVSRRLAEGLLWPEKKKVCWKGEEDDFEADFGGFVDEDELEFGGE
EEEAGDDDDVVEIKPPPVKRAFTGDDLSTMTSAAF DGPAERSAKRKRKNQFRGIRQRPWGK
WAAEIRDPNKGVRVWLGTFN SAEEAARAYDAEARRIRGNKAKVNFPEEPRAAQKRRAGPA
AAKVPKSRVEQKPNVKPAVNNLANTNASAYPSADFASNKPFVQPDNKPFFVQSDDL SFFQP
DDL PFVQPDDMPFVPAMNSAVPIGAPCMNLYSDQGSNSFGCSDLGWDCDTKTPTTTSVAP
ISTIVEGF EYAVVKNTQDSVPPVPMETNTVDHTNVLETNPVDPTSGLADLEPLLKFLLE
EDAGESIDSFLNLD ESQDVNGLWSFDDLISDFY

> I1H041 (*Brachypodium distachyon*) 351

MCGGAILSDIIPPPRRVTDGHLWPAEKKRGKGVGGRRPRRVPEEEFEFEAGFEGFEE
ELGEVEVGF GDEIKPSLASRNGSAGDGLNATSAGADGRASGSSKRKRKNQFRGIRRRPWG
KWAAEIRDPKRGVRVWLGTYN SAEEAARAYDAEARRIRGKKAKVNFPEEAPVTSQRHAEP
TFVKVSEFNTEEKPIVNTMGNTNAHSYPVVDYSLHEPFLQPQNMSFMPVMNAVEAPFMNL
SSDQGSNSFSCSDFSWENDIKTPDITSVLASIPTSTEVD ESAFLQNNANNAALPPVMGNA
NVDIADLEPYMKFLMDSGSD ESIDSMLS CDGSPDAVDLWTFDDMPMSAGFY

>A0A287UXT6 (*Hordeum vulgare*) 369

MCGGAILKDLKVPVTRKVT EAAALWPEKKKPRQADGGARRLGLVDGEEDFEADFEFEFEAD
SGSDSLELGRGAAEKDDDEVVEIKPYAAVKRPLSQDDFSIITTAGCDGPAQRS AKRKRK
NQFRGIRQRPWGK WAAEIRDP SKGVRVWLGTFN SAEEAARAYDVEARRIRGKKAKVNFPE
EPTVPQKRRVRPAPLKAPKLSASQEPTVIPAVNNLANPNAFVYPSADFASNQPPVQPDNV
PFVPAMKFAAPVEAPVMNMYSDQGSNSFGCSDLGW DYETKTPDISSVAPISTVAEGAESA
LIQSNTYNSVPPVMENNAVD FEPWTRFLMDDGVDEPIDSLNFDVDPQDVVSNMDLWSFG
DMPICGEFF

>M0XA37 (*Hordeum vulgare*) 374

MCGPLTHKNVDVPPVTRKVM AATFWPEKKKPRQTDGRGRHFLGLGGLRGLGLDEKEEDFE
ADFKEFEVNF GDSLELGHNGVIGKDDHEDVVEIKPFVVIKGFLSQDDLSTMSTAGPSE
PAKRKRKNQFRGTRQRPWGK WAAEIRDP SKGVRLWLGTFR SAEEAARAYDVAARRIHGKK
AKVNFPEEPAVEEPTVIPALNNLANPNAFVYPSVDFASNQPLVQIANMPFVPAMNFVAPV
QAPAMNMYSDQGSNTFGCSDLGRQYTIKTPDMSSIIAPVSTIAEGAESARVQSNTYNPVV
IAEAAESALVQSNTYNSVVP SIME SDSVDFDAWTRFLMDDDVDEPIDSLVNFVLDVLDV
NMDLWNFDDMPICG

> M0UDG0 (*Hordeum vulgare*) 320

MENDYKEFEFDSGSDLELGRDGVAAEDNNDEVDEIMSFVAIKRSLSKDDLSTMSSAGFH
DRPAQRS AKRKRKNQFRGIRQRPWGKWAAEIRDPIKGFRVWLGTFN SAEEAARAYDVEAR
RIRGKKAKLNFPMPTVPQKHHAPPVVPKVPKRSTTTKEHSFVPAINNLANKNASVYPSAD
FASKHPLGQPGNMPFVPMNSLAPVEAPVINMCS DRGSTSFGCSNLGWEY YTKTPHISAT
APISTIAEGDESLLVKGNTNNSVPPVMENDAANFEPWIRYLMDDTV DQLIDSLNFDVP
RDVAANFSKGTKPCISEQRE

> **F2EG87** (*Hordeum vulgare*) 319

MENEWE EFQVNSTDSLELGH DGLVEEDYNDDVVEIKPFVVISRSLSKDDLSTMPTAGFD
GPAQRS AKRKRKTHYRGIRQRPWGKWAAEIRDPIKGV RVWLGTFN SAEEAARAYDVAARR
IRGKKAKLNFPE DRTFAQKSHAPRAAPKVPKPSAPWEYSFVPAVNNLAKRNSFVYPSASF
ASKHPVVQRDHVSFPHAMSSVAPVEAPVTNIYSDRGTNSFGCPDLCWDYHTKAPHISSTT
RISTIAKGDGSLHVKNNTNNLMVPHVMENNAANFEPWMRYLMDNSVDEMIDSLNFDVPQ
DAVGNISEGTEPSISGKRE

> **F2CZK8** (*Hordeum vulgare*) 351

MCGGAILSDIIPPPRAAGRLWQADRKKRRRAGPRRVPEEEPEEEAEEGDEDFEADFEFGF
VDEESDGEVKKPFPARRSGFSGDGLKATAAGEYDCASGSAKRKRKNQFRGIRRRPWGKWA
EIRDPRKGVVWLGTYNSAEAAAYDVEARRIRGKKAKVNFPEEAPMASQQRCEPTAV
KVPEFNTEQKPVNLTMGNADVYSAAVDYTLNQQFVQPQNMSFVPTMNAVEAPFMNFSSD
QGSNSFSCSDFSWENDIKTPDITSVLASIPTSTEVNESAFVQNNGSNSTAPPVGMGNANVD
LADLEPYMKFLMDDRSDESIDSILSCDVPQDVVGNMDLWTFDDMPLSAGFY

> **F2E8K7** (*Hordeum vulgare*) 385

MCGGAILAGFIPPSAAAAAKAAATAKKKQQQSVTADSLWTGLRKKADEEDFEADFRDF
ERDSSEEDDEVEEVPPPPAPATAGFAFAAAAEEVALRAPARRDAAVQHDGPAKQVQRVR
KNQYRGIRQRPWGKWAEEIRDPSKGVVWLGTYDTAEAAAYDAEARKIRGKKAKVNF
EDAPTVQKSTLKPTAAKSAKLAPPPKACEDQPFNHLSRGDNDLFAMFAFSDKKVPAKPTD
SVDLLPVKHLAPTEAFGMNMLSDQSSNSFGSTDFGWDDEAMTPDYTSVFPVPSAAAMPAY
GEPAYLQGGAPKMRNNFGVAVLPQGNQAQDIPAFDNEVKYSLPYVESSSDGSMNLLLN
GAMQDGASSGDLWSLDELMAAGGY

> **B4G1N2** (*Zea mays*) 363

MCGGAILANLREPAPRRLTERDIWQQKKLKRGGGGRRSFAAEDDEDFEADFEVFEADS
SDSDLELREGTDDDDVVEIKPFTAKRTFSSDGLSTMTSAVARSAKRKRKNLYRGIRQRPWG
KWAEEIRDPOKGVVWLGTFNSPEEAARAYDAEARRIRGKKAKVNFDPAPAVGQKHRSGS
ASAKASKSSFGQKPIVKVAMNNLANTNASFFQSASYPNSLQVHGNNMPFVPAMNSTASVD
DLIMNLHSDQGSNSFGCSLDGWENDTKTPDITSIAPISTIAEGDESFAVDSNSNSSSFVLP
ALENSAVDLTDGLTDLESYMRFLLDGGPSDSVDSLNLNLDGSQDVGSDMDLWSFDDMP
IVGDF

> **B4G1H0** (*Zea mays*) 361

MCGGAILAELREPAPRRLTERDIWQQKKPKRGGAGRRSFAAEDDEDFEADFEVFEADS
GSDLELREGTDDDDVVEIKPFAAKSTFSRDGLSTMTTAGYDAPAARLAKRKRKNQYRGIR
QRPWGKWAEEIRDPOKGVVWLGTFNSPEEAARAYDAEARRIRGKKAKVNFDPAPAVGQK
CRSSASAKALKSCVEQKPIVKTDNMLANTNAPFYQSVNYASNNPFVPAMNSTV
SFEDPIMNLHSDQGSNSLGCSDLGWENDTKTPDITSIAPIPTIAEGDES
VFNNSNSNSSMVPPVLENNAVDLTDGLTDLESYMRFLMDGGASDSIDSLNLNLDGSQDLGSNMDLWTFDDMPIAGDF
F

> **B8A346** (*Zea mays*) 448

MCGGAILANLREPAPRRLTERDIWQQKKLKRGGGGRRSFAAEDDEDFEADFEVFEADS
SDSDLELREGTDDDDVVEIKPFTAKRTFSSDGLSTMTSAVARSAKRKRKNLYRGIRQRPWG
KWAEEIRDPOKGVVWLGTFNSPEEAARAYDAEARRIRGKKAKVNFDPAPAVGQKHRSGS
ASAKASKSSFGQKPIVKVAMNNLANTNASFFQSASYPNSLQVHGNNMPFVPAMNSTASVD
DLIMNLHSDQGSNSFGCSLDGWENDTKTPDITSIAPISTIAEGDESFAVDSNSNSSSFVLP
ALENSAVDLTDGLTDLESYMRFLLDGGPSDSVDSLNLNLDGSQDVGSDMDLWSFDDMP
IVGDF

RFLLRILKLGHRSMYIGTRGIKTGGDWEAPAWHLGGSICSCLAQRCRSCILKLLGYRPVP
YFSYLFMRAIYETEPFCFAFFSLLQYMV

> **B6TMM1** (*Zea mays*) 363

MCGGAILANLREPAPRRLTERDIWQQKKLKRGGGGRRSFAAEDDEDFEADFEVFEADS
SDSDLELREGTDDDVEIKPFTAKRTFSSDGLSTMTSAVARSAKRKRKNLYRGIRQRPWG
KWAAEIRDPOKGVVWLGTFNSPEEAARAYDAEARRIRGKKAKVNFDAPEVQKRRSGS
ASAKASKSSFGQKPIVKVTMNSLANTNASFFQSVSYPSNSFVQHGNIPFVPMNSTGSVE
DPIMNLHSDQGSNSFGCSDLGWENDTKTPDITSIAPISTIAEGDESAFVDSNSNNSFVLP
ALENSAVDLTDGLTDLESYMRFVLDGGPSDSVDSLNLNLDGSQDVGSNMDLWSFDDMPIAG
DFF

> **B8A023** (*Zea mays*) 363

MCGGAILSDIIPPPPPRRVTAGHLWPESKKPRRAASGRRGAPVEQHEQEEDFEADFEFEFE
VESGESELESEDEPKPFAAPRSALARGGLNTGAAGVDGPAANSVKRKRKNQFRGIRRRPW
GKWAAEIRDPRKGVVWLGTFNSPEEAARAYDAEARRIRGKKAKVNFDEVPVAVSQKRR
AAGPASLKAPKMDVEEEKPIIKLAVNNMTNSNAYHYPAVVGHNIIPEPFMQTQNMPFAPL
VNYAALVNLSSDQGSNSFGCSDFSLENDSTRTPDITSVPAVATLAAVGESVVFVQNTAGHA
VASPATGNTGVDLAELEPYMNFLMDGGSDDSISTLLSCDGSQDVVSNMDLWSFEDMPMSA
GFY

> **C0PM12** (*Zea mays*) 362

MCGGAILSDIIPPPPPRRVTAHLWPESKKPRRAASGRRGAPVEQHEQEEDFEADFEFEFEV
ESGESELESEDEPKPFAAPRSALARGGLNTGAAGVDGPAANSVKRKRKNQFRGIRRRPWG
KWAAEIRDPRKGVVWLGTFNSPEEAARAYDAEARRIRGKKAKVNFDEVPVAVSQKRRRA
AGPASLKAPKMDVEEEKPIIKLAVNNMTNSNAYHYPAVVGHNIIPEPFMQTQNMPFAPLV
NYAALVNLSSDQGSNSFGCSDFSLENDSTRTPDITSVPAVATLAAVGESVVFVQNTAGHAV
ASPATGNTGVDLAELEPYMNFLMDGGSDDSISTLLSCDGSQDVVSNMDLWSFEDMPMSAG
FY

> **Q6K7E6** (*Oryza sativa* (Japonica)) 365

MCGGAI IHHLKGHPESRRATEGLLWPEKPKPRWGGGGRRHFVGGFVEEDDEDFEADFEFEF
EVDSDLELGEEDDDDVEIKPAAFKRALSRDNLSTITTAGFDGPAAKSAKRKRKNQF
RGIRQRPWGKWAAEIRDPRKGVVWLGTFNSAEEAARAYDAEARRIRGKKAKVNFPEAPT
TAQKRRAGSTTAKAPKSSVEQKPTVKPAFNLANANAFVYPSANFTSNKPFVQPDNMPFV
PAMNSAAPIEDPIINSDQGSNSFGCSDFGWENDTKTPDITSIAPISTIAEVDESAFIKSS
TNPMVPPVMENSAVDLPDLEPYMRFLLDGAGDSIDSLNLNLDGSQDVVSNMDLWSFDDMP
VSDFY

> **Q69Y47** (*Oryza sativa* (Japonica)) 362

MCGGAILSDLIPPPRRVTAGDLWLEKTKKQQQKKKKNKGARRLPLRQEEEDDFEADFEF
EVDSEGEVEVESDADEAKPLAAPRSGFAKGLKNTTVAGADGPAARSAKRKRKNQFRGIRQ
RPWGKWAEEIRDPRKGVRVWLGTFNSPEEAARAYDAEARRIRGKKAKVNFDPGAPVASQR
SHAEPSSMNPFAFSIEEKPAVMSAGNKTMYNNTAYAYPAVEYTLQEPFVQIQNVSFVPAM
NAIEDTFVNLSSDQGSNSFGCSDFSQENDIKTPDITSM LAPMTGTGVDSDAFLQNNASDAM
VPPVMGNASIDLADLEPYMKFLIDGGSDESIDTLLSSDGSQDVASSMDLWSFDDMPVSAE
FY

> **Q69PH3** (*Oryza sativa* (Japonica)) 396

MCGGAIISGFIPPSAAAAAAAAAVAKKQQGRRVTADVLWPGMLRKGKAAAAEEDFEADFRE
FERGMSDDEAEGGGGEEEEEDDDVVVVVPPPAARFVVRAAKAAPPTADGMLTTKLVQH
DGPTARSAKHKRKNQYRGIRQRPWGKWAEEIRDPSKGVVRVWLGTYNTAEAAARAYDAEAR
KIRGKKAKVNFDPDEPAVAQKLSLKQNAAKQEKLAPPLKTCGDDAFFQLNSSDNDLFAMLA
KVPKPAEPVDLMPPVKPLASTETFEMNMLSDTSSNSFGSSDFGWEDDTLTPDYTSVFVP
NAAMPAYGEPAYLTGGAPKMRNNGYIAPVQNGMPNLAQNMPTFDPEMKYLPLPYVSS
SDESMDNLLQNDATQDGASNEGIWSLDELLMAAGAY

> **Q1ZZM5** (*Oryza sativa* (Japonica)) 396

MCGGAIISGFIPPSAAAAAAAAAAKQGGRRVTADVLWPGMLRKGKAAAAEEDFEADFRE
FERGMSDDEAEGGGGEEEEEDDDVVVVVPPPAARFVVRAAKAAPPTADGMLTTKLVQH
DGPTARSAKHKRKNQYRGIRQRPWGKWAEEIRDPSKGVVRVWLGTYNTAEAAARAYDAEAR
KIRGKKAKVNFDPDEPAVAQKLSLKQNAAKQEKLAPPLKTCGDDAFFQLNSSDNDLFAMLA
KVPKPAEPVDLMPPVKPLASTETFEMNMLSDTSSNSFGSSDFGWEDDTLTPDYTSVFVP
NAAMPAYGEPAYLTGGAPKMRNNGYIAPVQNGMPNLAQNMPTFDPEMKYLPLPYVSS
SDESMDNLLQNDATQDGASNEGIWSLDELLMAAGAY

> **Q5MFV3** (*Oryza sativa* (Indica)) 399

MCGGAIISGFIPPSAAAAAAAAAAKQGGRRVTADVLWPGMLRKGKAGAAEEDFEADF
REFERGMSDDEAEGGGGEEEEEDDDVVVEVPPATARFVVRAAKAAPPTADGMLTTKL
VQHDGPTARSAKRKRKNQYRGIRQRPWGKWAEEIRDPSKGVVRVWLGTYNTAEAAARAYDA
EARKIRGKKAKVNFDPDEPAVAQKLSLKQNAAKQEKLAPPLKSCGDDAFFQLNSSDNDLFA
MLAKVPKPAEPVDLMPPVKPLASTETFEMNMLSDTSSNSFGSSDFGWEDDTLTPDYTSV
FVPNAAMPAYGEPAYLTGGAPKMRNNGYIAPVQNGMPNLAQNMPTFDPEMKYLPLPYV
ESSDESMDNLLQNDATQDGASNEGIWSLDELLMAAGAY

> **A2Z1K6** (*Oryza sativa* (Indica)) 399

MCGGAIISGFIPPSAAAAAAAAAAKQGGRRVTADVLWPGMLRKGKAAAAEEDFEADF
REFERGMSDDEAEGGGGEEEEEDDDVVVEVPPATARFVVRAAKAAPPTADGMLTTKL
VQHDGPTARSAKRKRKNQYRGIRQRPWGKWAEEIRDPSKGVVRVWLGTYNTAEAAARAYDA
EARKIRGKKAKVNFDPDEPAVAQKLSLKQNAAKQEKLAPPLKSCGDDAFFQLNSSDNDLFA
MLAKVPKPAEPVDLMPPVKPLASTETFEMNMLSDTSSNSFGSSDFGWEDDTLTPDYTSV
FVPNAAMPAYGEPAYLTGGAPKMRNNGYIAPVQNGMPNLAQNMPTFDPEMKYLPLPYV
ESSDESMDNLLQNDATQDGASNEGIWSLDELLMAAGAY

> **G1E8V7** (*Oryza sativa* (Indica)) 365

MCGGAI IHHLKGHPEGSRRATEGLLWPEKKKPRWGGGRRHFGGFVEEDEDFEADFEFF
EVDSDGSDLELGEEDDDDDVVEIKPAAFKRALSRDNLSTITTAGFDGPAAKSAKRKRKNQF
RGIRQRPWGKWAAEIRDPRKGVRVWLGTFNSAEEAARAYDAEARRIRGKKAKVNFPEAPT
TAQKRRAGSTTAKAHKSSVEQKPTVKPAFNLANANAFVYPSANFTSNKPFVQPDNMPFV
PAKNSAAPIEDPIINSDQGSNSFGCSDFGWENDTKTPDITSIAPISTIAEVDESAFIKSS
TNPMVPPVMENSAVDLPDLEPYMRFLDDGAGDSIDSLNLDGSQDVVSNMDLWSFDDMP
VSDFY

> **A2YA85** (*Oryza sativa* (Indica)) 362

MCGGAILSDLIPPPRRVTAGDLWLEKTKKQQQQKKKNGARRLPLRQEEEDDFEADFEFF
EVDSGEWEVESDADEAKPLAAPRSGFAKGLKNTTVAGADGPAARSKRKRKNQFRGIRQ
RPWGKWAAEIRDPRKGVRVWLGTFNSPPEEAARAYDAEARRIRGKKAKVNFPGAPVASQR
SHAEPSSMNMPAFSIEEKPAVMSAGNKIMYNTNAYAYPAVEYTLQEPFVQIQNVSFVPAM
NAIEDTFVNLSDDQGSNSFGCSDFSQENDIKTPDITSM LAPTITGVDDSAFLQNNASDAM
VPPVMGNASIDLADLEPYMKFLIDGGSDESIDTLLSSDGSQDVASSMDLWSFDDMPVSAE
FY

> **A0A0E0CS91** (*Oryza meridionalis*) 365

MCGGAI IHHLKGHPEGSRRVTEGLLWPEKKKPRWGGGRRHFGGFVEEDEDFEADFEFF
EVDSDGSDLELGEEDDDDDVVEIKPAAFKRALSRDNLSTITTAGFDGPAAKSAKRKRKNQF
RGIRQRPWGKWAAEIRDPRKGVRVWLGTFNSAEEAARAYDAEARRIRGKKAKVNFPEAPT
TAQKRRAGSTTAKAPKSSVEQKPTVKPAFNLANANAFVYPSANFTSNKPFVQPDNMPFV
PAMNSAAPIEDPIINSDQGSNSFGCSDFGWENDTKTPDITSIAPISTIAEVDESAFIKSS
TNPMVPPVMENSAVDLPDLEPYMRFLDDGAGDSIDSLNLDGSQDVVSNMDLWSFDDMP
VSDFY

> **A0A0E0DYA2** (*Oryza meridionalis*) 367

MCGGAILSDLIPPPRRVTAGDLWLEKTKKQQQQQQKKKNGARRLPLRQEEEEEDFEA
DFEEFEVDSDGEWEVESDADEAKPLAASRSGFAKGLKNTTIAGADGPAARSKRKRKNQF
RGIRQRPWGKWAAEIRDPRKGVRVWLGTFNSPPEEAARAYDAEARRIRGKKAKVNFPGAP
VASQRSHAEPSSMNMPAFSVEEKPTVMSAGNNTMYNTNAYAYPAVEYTLQEPFVQIQNVS
FVPAMNAIEDTFVNLSDDQGSNSFGCSDFSQENDIKTPDITSM LAPTMTGVDDSAFLQNN
ASDAMVPPVMGNASIDLADLEPYMKFLIDGGSDESIDTLLSSDGSQDVASSMDLWSFDDM
PVSAEFY

> **A0A0E0ESI4** (*Oryza meridionalis*) 367

MCGGAIISGFIPPSAAAAAAAAAAKQGGRRVTADVLWPGMLRKGKAAVVEEDFEADFRE
FERGMSDDEAEGGGGEEEEEDDDVVVVVPPPPAAAAAARFVVRAAKAAPPTADGMLTTK
LVQHDGPTARS AKRKRKNQYRGIRQRPWGKWA AEIRDPSKGV RVWLGTYN TAE EEAARAYD
AEARKIRGKKAKVNF PDEPAVAQKLSLKQNAAKQEKLAPPLKTCGDDAFFQLNSSDNDLF
AMLAKVPAKPAEPVDLMPPVKPLASTET FEMNMLS DTSSNSFGSSDFGWEDDTLTPDYTS
VFVPNAAMPAYGEPAYLTGGAPKMRNNGI AVPQGN GMPNLAQNMPTFDPEMKYLPLPY
VESSSDESMDNLLQNDATQDGASNEGIW SLDELLMAAGAY

> **A0A0E0ESI3** (*Oryza meridionalis*) 411

MCGGAIISGFIPPSAAAAAAAAAAKQGGRRVTADVLWPGMLRKGKAAVVEEDFEADFRE
FERGMSDDEAEGGGGEEEEEDDDVVVVVPPPPAAAAAARFVVRAAKAAPPTADGMLTTK
LVQHDGPTARS AKRKRKNQYRGIRQRPWGKWA AEIRDPSKGV RVWLGTYN TAE EEAARAYD
AEARKIRGKKAKVNF PDEPAVAQKLSLKQNAAKQEKLAPPLKTCGDDAFFQLNSSDNDLF
AMLAKVPAKPAEPVDLMPPVKPLASTET FEMNMLS DTSSNSFGSSDFGWEDDTLTPDYTS
VFVPNAAMPAYGEPAYLTGGAPKMRNNGI AVPQGN GMPNLAQNMPTFDPEMKYLPLPY
VESSSDESMDNLLQNDATQDGASNEGIW SLDELLMAADLILGQLIGYRTVT

> **A0A0D3GDR9** (*Oryza barthii*) 362

MCGGAILSDLIPPRRV TAGDLWLEKTKKQQQKKKNKGARRLPLRQEEEDDFEADFEFF
EVDSGEWEVESDADEAKPLAAPRSGFAKGLKNTTVAGADGPAARS AKRKRKNQFRGIRQ
RPWGKWA AEIRDPRKGV RVWLGT FN SPEEAARAYDAEARRIRGKKAKVNF PDGAPVASQR
SHAEPSSMNMPAFSIEEKPAVMSAGNNTMYNTSAYAYPAVEYTLQEPFVQIQNVSFVPAM
NAIEDTFVNLSSDQGSNSFGCSDFSQENDIKTPDITSM LAPMTGVDDSAFLQNNASDAM
VPPVMGNASIDLADLEPYMKFLIDGGSDESIDTLLSSDGSQDVASSMDLWSFDDMPVSAE
FY

> **A0A0D3H779** (*Oryza barthii*) 362

MCGGAIISGFIPPSAAAAAAAAAAAAAAAAAKQGGRRVTADVLWPGMLRKGKAAAAEEDFEAD
FREFERGMSDDEAEGGGGEEEEEDDDVVVVVPPPPAAARFVVRAAKAAPPTADGMLTTK
LVQHDGPTARS AKRKRKNQYRGIRQRPWGKWA AEIRDPSKGV RVWLGTYN TAE EEAARAYD
AEARKIRGKKAKVNF PDEPAVAQKLSLKQNAAKQEKLAPPLKTCGDDAFFQLNSSDNDLF
AMLAKVPSKPAEPVDLMPPVKPLASTET FEMNMLS DTSSNSFGSSDFGWEDDTLTPDYTS
VFVPNAAMPAYGEPAYLTGGAPKMRNNGI AVPQGN GMPNLAQNMPTFDPEMKYLPLPY
VESSSDESMDNLLQNDATQDGASNEGIW SLDELLMAAGAY

> **A0A0E0GDQ9** (*Oryza nivara*) 365

MCGGAI IHHLKGHPGSRRATEGLLWPEKKKPRWGGGRRHFGGFVEEDDEDFEADFEFF
EVDSGSDLELGEEDDDDVVEIKPAAFKRALS RDNLSTITTAGFDGPAAKSAKRKRKNQF
RGIRQRPWGKWA AEIRDPRKGV RVWLGT FN SA EEAARAYDAEARRIRGKKAKVNFPEAPT
TAQKRRAGSTTAKAPKSSVEQKPTVKPAFNLANANAFVYPSANFTSNKPFVQPDNMPFV

PAKNSAAPIEDPIINSDQGSNSFGCSDFGWENDTKTPDITSIAPISTIAEVDESAFIKSS
TNPMVPPVMENSAVDLPDLEPYMRFLLDGAGDSIDSLNLDGSQDVVSNMDLWSFDDMP
VSDFY

> **A0A0E0HM33** (*Oryza nivara*) 362

MCGGAILSDLIPPPRRVTAGDLWLEKTKKQQQKKNKNGARRLPLRQEEEDDFEADFEFF
EVDSGEWEVESDADEAKPLAAPRSGFAKGGLKNTTVAGADGPAARS AKRKRKNQFRGIRQ
RPWGKWA AEIRDPCGVRVWLGTFNSP EEAARAYDAEARRIRGKKAKVNF PDGAPVASQR
SHAEPSSMNP AFSEIEEKPAVMSAGNKIMYNTNAYAYPAVEYTLQEPFVQIQNVSFVPAM
NAIEDTFVNLS SDQGSNSFGCSDFSQENDIKTPDITSM LAPTITGVDDSAFLQNNASDAM
VPPVMGNASIDLADLEPYMKFLIDGGSDESIDTLLSSDGSQDVASSMDLWSFDDMPVSAE
FY

> **A0A0E0IJZ5** (*Oryza nivara*) 398

MCGGAIISGFIPPSAAAAAAAAAAKQQRRTADVLWPGMLRKGKAAAAEEDFEADFR
EFERGMSSDEAEGGGGEEEEEDDVVVVPPPAARFVVRAAKAAPPTADGMLTTKLV
QHDGPTARS AKRKRKNQYRGIRQRPWGKWA AEIRDPSKGVVWLGTYN TAE EAARAYDAE
ARKIRGKKAKVNF PDEPAVAQKLSLKQNAAKQEKLAPPLKTCGDDAFFQLNSSDNDLFAM
LAKVPAKPAEPV DLMPPVKPLASTETFEMNMLS DTSSNSFGSSDFGWEDDTLTPDYTSVF
VPNAAMPAYGEPAYLTGGAPKMRN NYGIAVPQGN GMPNLAQNMPAVDPEMKYLPLPYVE
SSSDESMDNLLQNDATQDGASNEGIWLSLDELLMAAGAY

> **A0A0E0K607** (*Oryza punctata*) 371

MCGGAI IHHLKGHP EGSRRVTEGLLWPEK KPRWGAGGRRHF GGFVEEDDED FEADFEFF
EVDSGDSDLELGE EEDDDVVEIKPAAFKRALSRDNLSTITTAGFDGPAARS AKRKRKNQ
FRGIRQRPWGKWA AEIRDPRKGVVWLGTFN SAEEAARAYDAEARRIRGKKAKVNF PEAP
TTAQKRRAGSTTAKAPKSSVEQKPTVKPAFN NLVNTNAFVYPSAHFTSNKPFVQPDNMPF
VPAMNSAAP IDDP IINSDQGSNSFGCSDFGWENDTKTPDITSIAPISTIAEVDESAFIKS
STQNPMVPPVMENSTVDLADSLPDLEPYMRFLLDGAGDSIDSLNLDGSQDVVSNMDLW
SFDDMPVSDFY

> **A0A0E0L8W7** (*Oryza punctata*) 363

MCGGAILSDLIPPPRRVTAGDLWLEKTKKQQQKKNKNGARRLPRRVVVEEDFEADFE
EFEVDSGESEVESDADEAKPFVAPRSGFARGGLNIAVAGADGPAARS AKRKRKNQFRGIR
QRPWGKWA AEIRDPRKGVVWLGTFN SP EEAARAYDAEARRIRGKKAKVNF PDGAPVASQ
RSLAEPSSMNP TFTVEEKPTIMSAGNNTMYNTNAYAYPAVEYTLQEPFVQTQNVFVPA
MNIIEDPFMNLSSDQGSNSFGCSDFSQENDIKTPDITSM LAPTITGVDES AFLQNNASDA

IVPPVMGN SIDLADLEPYMKFLIDGGSDSINTLLSSDGSQDVASSMDLWSFDDMPVSA
EFY

> **A0A0E0M1L0** (*Oryza punctata*) 403

MCGGAIISGFIPPSAAAAAAAAAAAAAKKQGRRTADVLWPGMRRKAAA AVVEEDFEADF
REFERGMSDDEAEGGGGEEEEEDMVVEVPPAAAAARFIARAAKAAAGVAAPTADGMLTTKL
VEHDGPTARS AKRKRKNQYR GIRQRPWGKAAE IRDP SKGVRVWLGT YNTAEEAARAYDA
EARKIRGKKAKVNF PDEPAVAQKLSLKQNAAKQEKLAPPLKTCGDDAFFHLNNSDNDLFA
MLAFSDKKVPAKPAEPVDFMPPVKPLASTETFEMNMLS DTSSNSFGSSDIGWEDDTLTPD
YTSVFPVNAAMPAYGEPAYLTGGAPKMRNNGVAVPQNGMPNLTQNMPTFDPEMKYLP
LPYVSSSDSMDSL LQNDATQDGANNEGIWSLDELLMAAGAY

> **J3LHR2** (*Oryza brachyantha*) 364

MCGGAILTSLKGH PAGRRTVTEALLWPEKKKPRWGGGRRHF GGFMEEDEEDFEADFEEF
EVDSGESDLELGVEDDDDDVIETKPVKRALSRDNLSTITTAGFDGPAARS AKRKRKNQFR
GIRQRPWGKAAE IRDPRK GVRVWLGT FN SAEEAARAYDAEARRIRGKKAKVNF PETPTT
AQKRRAGSTTAKAPKSKVEQKPTVKPAFN NLVNTNAFVYPSTNFTSNKPFVQ PENMLFVP
AMNSAAPIEDLI INSDQGSNSFGCS DLGWENDTKTPDITSIAP ISTIAEVDES AFIRSNT
DNSVAPPIMENSTVDLPDLEPYMRFL LDDGAGDSIDSL LNL DGSQDVASNMDLWSFDDMP
VSDF

> **J3MC15** (*Oryza brachyantha*) 361

MCGGAILSDILPPPPRRV TAGDLWLEKQKKKKTQKARRLPRRDEEEEEEEEDFEADFEE
FEGESGESEVEVEVESDVDEAKPRGQRRRGLNTTVAGADGPAARS AKRKRKNQFRGIRQR
PWGKAAE IRDPRK GVRVWLGT FN SPEEAARAYDAEARRIRGKKAKVNF PDGAPVASQSQ
HTEPSSVNMP TFSVEEKPAVMSAGNNTMYNTNAYAYRAVEY TLEEFVQTQNV SFVPTMN
VIGDSFLNLSSDQGSNSFGCSDFSQENDTKTPDITSM LAPTLTEVDES AFLQNNASGAMV
PPVMGNASVDLADLEPYMKFLIDGGSDS IDTLLSSDGSQDVASSMDLWSFDDMPVSAEF
Y

> **J3MXR7** (*Oryza brachyantha*) 398

MCGGAIISGFIPPSAGAAAXAAAKKQGRRTADVLWPGMRGKAKAGRGFGVEDDFEADFRE
FEQGLSDDEADGGGGEVDDDDDDVVVEVPPPARSVFGGAAKAAAGIAPPTADGVLTPKLV
QHDGPTARS AKRKRKNQYR GIRQRPWGKAAE IRDP SKGVRVWLGT YNTAEEAARAYDAE
ARKIRGKKAKVNF PDELSVAQKPSLKQNAAKQEKLTPPLKTCVDDAFIHPNNADNDLFAM
FSFSDDKKVPAKPEEPV GILPPVKPLVSTETFEINMLSDESSNSFGSSDFGWDDDILTDPDY
TSVFPVNAAMPAYGEPAYLTGGAPKMRNNGVAVPQNGMPDLTQNMPTFDPGMKYTPLPYVE
SSSDSMDSL LQNDATQDGASNVGIWSLDELLLAAGAY

> **A0A0D9YZA8** (*Oryza glumipatula*) 398

MCGGAI IHHLKGHPGSRRATEGLLWPEKKKPRWGGGRRHFGGFVEEDEDFEADFEF
EVDSGDSDLELGEEDDDVVEIKPAAFKRALSRDNLSTITTAGFDGPAAKSAKRKRKNQF
RGIRQRPWGKWAAEIRDPRKGVRVWLGTFNSAEEAARAYDAEARRIRGKKAKVNFPEAPT
TAQKRRAGSTTAKAPKSSVEQKPTVKPAFNLANANAFVYPSANFTSNKPFIQPDNMPFV
PAMNSAAPIEDPIINSDQGSNSFGCSDFGWENDTKTPDITSIAPISTIAEVDESAFIKSS
TNPMVPPVMENSAVDLPDLEPYMRFLDDGAGDSIDSLNLDGSQDVVSNMDLWSFDDMP
VSDFY

> **A0A0E0A677** (*Oryza glumipatula*) 362

MCGGAILSDLIPPRRVTAGDLWLEKTKKQQQQKKNKGARRLPLRQEEEDDFEADFEF
EVDSGEWEVESDADEAKPLAAPRSGFAKGLKNTTVAGADGPAARSKRKRKNQFRGIRQ
RPWGKWAAEIRDPRKGVRVWLGTFNSPPEEAARAYDAEARRIRGKKAKVNFPGAPVASQR
SHAEPSSMNMPAFSIEEKPAVMSAGNNTMYNTNAYAYPAVEYTLQEPFVQIQNVSFVPAM
NAIEDTFVNLSSDQGSNSFGCSDFSQENDIKTPDITSMLAPTMTGVDDSAFLQNNASDAM
VPPVMGNASIDLADLEPYMKFLIDGGSDESIDTLLSSDGSQDVASSMDLWSFDDVPVSAE
FY