

	1	10
HvEG16_Hordeum_vul	MA	SER.....DQHEHLR..
TaEG16_Triticum_ae	MA	SDSESS.....DVA.PDDQHEHLR..
TaEG16_Triticum_ae	MA	SDSESS.....DVA.PDDQHEHLR..
OsEG16_Oryza_sativ	MA	SESECV.....AVAEPPHVHVHLH..
OsEG16_Oryza_sativ	MA	SESECV.....AVAEPPHVHVHLH..
OsEG16_Oryza_sativ	MA	SESECV.....AVAEPPHVHVHLH..
TaEG16_Triticum_ae	MA	SECE.....VT.PDDQHEHLR..
ZmEG16_Zea_mays_GR		
ZmEG16_Zea_mays_NP	MA	SESEAC.SWE.....PHLLH.....
ZmEG16_Zea_mays_Zm	MA	SESEAC.SWE.....PHLLH.....
VvEG16	MA	D.....PSLHHEA.....
PtEG16	MA	D.....PAIHHEA.....
1UN1	MA	AAYPWT.....
HvXTH8	MA	KATAGAL.....
HvXTH22	MA	.....
HvXTH20	MA	.....
HvXTH19	MA	.....
HvXTH18	MA	.....
HvXTH17	MA	.....
HvXTH23	MA	RIVE.....
HvXTH21	MA	SG.....PS.....
HvXTH24	MA	.....
HvXTH3	MA	KAPSGGLAYKKAVSCALCFAPDQSI
HvXTH13	MA	PSL.....PS.....
HvXTH4	MA	PAL.....P.....
HvXTH14	MA	.....
HvXTH1	MA	.....
HvXTH6	MA	.....
HvXTH5	MA	.....
HvXTH7	MA	.....
HvXTH2	MA	.....
HvXTH15	MA	.....
2UWA	MA	M.....PPN.....
HvXTH10	MA	MMQ.....IRRPH.....
HvXTH16	MA	SL.....
HvXTH12	MA	TARF.....
HvXTH9	MA	CHF.....
HvXTH11	MA	SSSSCP.....PP.....SPRPS.....
HORVU4Hr1G085940.2	MA	GS.....

HvEG16_Hordeum_vul		PDGTEPL.....
TaEG16_Triticum_ae		PEGTEPL.....
TaEG16_Triticum_ae		PEGTEPL.....
OsEG16_Oryza_sativ		PDGTEPL.....
OsEG16_Oryza_sativ		PDGTEPL.....
OsEG16_Oryza_sativ		PDGTEPL.....
TaEG16_Triticum_ae		PEGTEPL.....
ZmEG16_Zea_mays_GR		
ZmEG16_Zea_mays_NP		PNGTEPL.....
ZmEG16_Zea_mays_Zm		PNGTEPL.....
VvEG16		QPL.....
PtEG16		QPI.....
1UN1		LFLGMLVMVS.....GTMGAALR.....KPV.....
HvXTH8		LAVVATVLLR.....GIAAAPP.....KPV.....
HvXTH22		LRGSLRWL.LVLAVVVAAS.....AGKAGR.....
HvXTH20		RMAVSVLAI.LLAWCALA.....AAS.....
HvXTH19		RMAVSVLSI.LLATCALA.....AAS.....
HvXTH18		RMGASVLSI.LLASCALA.....AAS.....
HvXTH17		RMGASVLSI.LLASCALA.....AAS.....
HvXTH23		LG1.VAMACLVAVAR.....AGN.....
HvXTH21		RTVPCSVLPL.LLLLAVARA.....AGN.....
HvXTH24		QARAYLLAS.LAAFYLVALLAI..PQVTAD.....
HvXTH3		SSWGWMGMPWRRPCVGL.LACAAIAASCCCFQLQGADAAA.....SPS.....
HvXTH13		SSSCWHSALL..VAMLVLVVM.....DQVAMAY.....
HvXTH4		CSRPKLLLLCVALAFLAVD.....VGRAD.....
HvXTH14		PRSDLLAA.LALALLAASVL.....STGAKAD.....
HvXTH1		RPSFSLHLC.LAVLALAAA.....ASEAG.....
HvXTH6		QRFLAVLA.VALALSQVA.....SAKSW.....
HvXTH5		RRLAVLA.VALALLQAA.....SAKSW.....
HvXTH7		
HvXTH2		KPGALVPV.VALAFALVLGL..ELVSGGN.....
HvXTH15		SSVRQPWLLLL.LVLLPVMATAAV.....
2UWA		ILSIFLHL.LPILMFSSS.CL..GQGP.....P.....SPGYPPSSQIT
HvXTH10		DAISHL.MVIVGAVI.LL.QGEAQ.....P.....SPGYPPSSKVS
HvXTH16		SLIPA.MALLLLAMA.VA.SSDAQ.....P.....SPGYPPSSRFR
HvXTH12		.....LAAAAACVW.LAAAAAFDV.....PT.....
HvXTH9		L.LAVLLASSSWVA.ASSGAAADDVMP.....RPT.....TAA
HvXTH11		RL.LPVLVATV..VL.LGRGGEARQ...P.....APLH.....GVVR
HORVU4Hr1G085940.2		LEATRVELGLAVLYLNKAE.....

	20	30	40
HvEG16_Hordeum_vul	....ARIAVD	YTPDACRHAPE..SG..E	IHVITYD
TaEG16_Triticum_ae	....ARIAVD	YTPDACRHAPE..TG..E	IHVITYD
TaEG16_Triticum_ae	....ASIAVD	YIPDACRHAPE..SG..E	IHVITYD
OsEG16_Oryza_sativ	....AHIAVD	YCPEACHHASE..DG..E	IHVITYD
OsEG16_Oryza_sativ	....AHIAVD	YCPEACHHASE..DG..E	IHVITYD
OsEG16_Oryza_sativ	....AHIAVD	YCPEACHHASE..DG..E	IHVITYD
TaEG16_Triticum_ae	....ARIAVD	YTPD.....G..E	IHVITYD
ZmEG16_Zea_mays_GR	.....HRIA	VDYCPEACLHERH..AG..E	IHVITYD
ZmEG16_Zea_mays_NP	.....HRIA	VDYCPEACLHERH..AG..E	IHVITYD
ZmEG16_Zea_mays_Zm	.....KFAI	VDYCPEACHTSPE..SS..T	ITLTFD
VvEG16	.....NQIA	IDYTPEACTHCPE..SN..S	ITLTYD
PtEG16	DVAFGRNYVPT	WAFDHIKYFNG..GN..E	IQLHLD
1UN1	DVPFEKNYVPT	WAEDHIHYVNG..GR..E	VQLSLDK
HvXTH8	..GLHRDFDAV	WGKRNRFFDE..GR..V	VELALDR
HvXTH22	..FDKEFDIT	WDGGRGKILNN..GQ..L	LTLLDK
HvXTH20	..FDKEFDVT	WDGGRGKILNN..GQ..L	LTLLDK
HvXTH19	..FDKEFDVT	WDGGRGKILNN..GQ..L	LTLLDK
HvXTH18	..FDKEFDVT	WDGGRGKILNN..GQ..L	LTLLDK
HvXTH17	..FDKEFDVT	WDGGRGKILNN..GQ..L	LTLLDK
HvXTH23	..FFQDSEMS	WDGGRGKVVDG..GR..G	LDLTLDK
HvXTH21	..FYQDVDT	WDGGRGKILGG..GD..L	LTLLSLDR
HvXTH24	..MTDEVNLL	WGNCVKQRDGT..GR..Q	TVAAMLDR
HvXTH3	..FGDNFEIT	GAKDHVKTSPD..GQ..T	WYLSLND
HvXTH13	..LDDDIIEV	WGGDHSFFYMDDAGDDEI	LALCLDE
HvXTH4	..IYKDIQII	WSADHTYFMD..GDSEA	LALSLDF
HvXTH14	..FDDQFEVI	GDRDHIGYRDDGNDKGQEF	SLELDQ
HvXTH1	..FYDQFDVV	GSGNNVRVNDGIAQ..QV..A	LTLDQ
HvXTH6	..LDKRFTDGT	..VRTGYDASGQ..QV..M	MLNLNQ
HvXTH5	..LDKRFTDGT	..VRTGYDASGQ..QV..M	MLNLNQ
HvXTH7	.....	.....	.....
HvXTH2	..FYEECDAT	WEPQNCWTYDQ..GN..S	LSLALVSNSSGLSSTSQLLYFSWSSPLNESM
HvXTH15	..FDDNYAPT	WGADGYHLVDQ..GT..E	IRLTMDR
2UWA	SLGFDQGYTNL	WGPQHQRV..D..QG..S	LTWLDS
HvXTH10	STPFSSQWYSTL	WGPQHQSLSPD..QT..A	LTLLWMDR
HvXTH16	PVAFNRGYSNK	WGPQHQTVS GD..HS..A	ITWLDR
HvXTH12	..VAFEEGFSPL	FGDGNLVRARD..DR..A	ARLLDR
HvXTH9	ALTTFREGYTQL	FGDSNLRLHGD..GK..R	VHISLDE
HvXTH11	SMAFDEGYTQL	FSGSNLALRRE..GK..R	VHLALDE
HORVU4Hr1G085940.2	.....	.....AR.....	..DKICRAI

	50	60	70	80	90
HvEG16_Hordeum_vul	..RGGARWRSRSLRFLP	GGAVAAVRA	PAGD	TTGLNLYNL	YLS
TaEG16_Triticum_ae	..RGGARWRSRSLRFLP	GGAVAAVRA	PAGD	TAGLNYNL	YLS
TaEG16_Triticum_ae	..RGGARWRSRSLRFLP	GGAVAAVRA	PAGD	TAGLNYNL	YLS
OsEG16_Oryza_sativ	..RGGARWRSRCRFLP	GGAVAA	IRAPAGD	TAGLNYNL	YLS
OsEG16_Oryza_sativ	..RGGARWRSRCRFLP	GGAVAA	IRAPAGD	TAGLNYNL	YLS
OsEG16_Oryza_sativ	..RGGARWRSRCRFLP	GGAVAA	IRAPAGD	TAGLNYNL	YLS
TaEG16_Triticum_ae	..GARWRSRGRFLP	GCABAAT	VRAPAGD	TAGLNYNL	YLS
ZmEG16_Zea_mays_GR	.....	.....	.....	.....	.....
ZmEG16_Zea_mays_NP	..RGGARWRSCCRFLP	GSAVATT	IRAPAGD	TSGLNYNI	YLS
ZmEG16_Zea_mays_Zm	..RGGARWRSCCRFLP	GSAVATT	IRAPAGD	TSGLNYNI	YLS
VvEG16	..RGSRWRSSTTRFQYG	..TFSSL	IQCCKGN	TSGLNFNI	YLS
PtEG16	..RGGARWRSSTTRFLYG	..TFSSL	IQCCKGN	TSGLNFNI	YLS
1UN1	..YTGTGFQSKGSYLF	..HFSM	QMKLVPGD	SAGTVTAF	YLS
HvXTH8	..TTGTGFQTRGSYLF	..HFSM	IKLVG	GD	SAGTVTAF
HvXTH22	..ETGSRLQSKDRYLF	..RFDL	IRLVAGE	SAGTITSF	YICTG
HvXTH20	..VSGSGFQSKHEYLF	..KIDM	QKLVPGN	SAGTVTAY	YLS
HvXTH19	..VSGSGFQSKHEYLF	..KIDM	QKLVPGN	SAGTVTAY	YLS
HvXTH18	..VSGSGFQSKHEYLF	..KIDM	QKLVPGN	SAGTVTAY	YLS
HvXTH17	..VSGSGFQSKREYLF	..KIDM	QKLVPGN	SAGTVTAY	YLS
HvXTH23	..TS	GSGFQSKSEYLF	..KIDM	IKLVPGN	SAGTVTTF
HvXTH21	..AS	GSGFQSKNQYLYG	..RFDM	QKLVPGD	SAGTVATF
HvXTH24	..WTTSG	FSSKIKYLF	..RIDM	EIKLMPGN	SAGTVTTF
HvXTH3	..KT	GVGFQTKQKYLFG	..WFSM	KLVGND	SAGVVTAY
HvXTH13	..TH	GSGFHTKEAYLYA	..RFDV	LMVDPDN	SAGTVTTL
HvXTH4	..NR	GSAFKNNDMYLYA	..RID	IKLVEGN	SAGTVCTV
HvXTH14	..ES	GSGFQSKAKYLF	..EFQV	RMKLVGND	SAGTVTSF
HvXTH1	..GNG	GSGFQSKDKYLYG	..EFSV	QMKLVGND	SAGTVTSF
HvXTH6	..QSGAAG	FNSKQYLYG	..EFSI	QMKLVGND	SAGTVSCF
HvXTH5	..QSGAAG	FNSKQYLYG	..EFSI	QMKLVGND	SAGTVSCF
HvXTH7	.....	.....	.....	.....	.....
HvXTH2	CGCS	GSMIRSKRQFIYG	..TVSTM	IQLVKGD	SAGTVTTY
HvXTH15	..NS	GAGFHSKSTYSG	..FFHM	RIKVP	GYTAGVVTAF
2UWA	..TS	GSGFQSKINRYRSG	..YFGA	NIKLVGND	GYTAGVITSF
HvXTH10	..SS	GSGFQSKINRYRSG	..YFGA	NIKLVGND	GYTAGVITSF
HvXTH16	..TC	GSGFQSKKHAYRNG	..YFATR	IKLVGND	GYTAGVNTAF
HvXTH12	..RS	GSGFISSDYLYHG	..FFSA	IKLVGND	GYTAGVVVAF
HvXTH9	..RT	GSGFASQGAFFHG	..FFSA	IKLVGND	GYTAGVVVAF
HvXTH11	..ST	GSGFASQDRFLHG	..FFSA	IKLVGND	GYTAGVVVAF
HORVU4Hr1G085940.2	..QY	GSKFISNGQPGTA	QNVDKS	TTTL	..ARKVFERLLK

	100	110
HvEG16_Hordeum_vul	DFEFLGNDKR...AV	QTNFF
TaEG16_Triticum_ae	DFEFLGNHKKR...AV	QTNFF
TaEG16_Triticum_ae	DFEFLGNDKR...AV	QTNFF
OsEG16_Oryza_sativ	DFEFLGHDKC...AV	QTNFH
OsEG16_Oryza_sativ	DFEFLGHDKC...AV	QTNFH
OsEG16_Oryza_sativ	DFEFLGHDKC...AV	QTNFH
TaEG16_Triticum_ae	DFEFLGNDKR...AV	QTNLF
ZmEG16_Zea_mays_GR		
ZmEG16_Zea_mays_NP	DFEFLGHDKR...AV	QTNYY
ZmEG16_Zea_mays_Zm	DFEFLGHDKR...AV	QTNYY
VvEG16	DFEFLGDKR...IV	QTNYY
PtEG16	DFEFLGDKT...IV	QTNYY
1UN1	DFEFLGNRT...GQPYIL	QTNVF
HvXTH8	DFEFLGNRT...GQPYIL	QTNVF
HvXTH22	DFEFLGNVS...GEPYIL	HTNIF
HvXTH20	DFEFLGNVT...GEPYTL	HTNVF
HvXTH19	DFEFLGNVT...GEPYTL	HTNVF
HvXTH18	DFEFLGNVT...GEPYTL	HTNVF
HvXTH17	DFEFLGNVT...GEPYTL	HTNVF
HvXTH23	DFEFLGNVT...GEPYTL	HTNVF
HvXTH21	DFEFLGNAS...GQPYTV	HTNVY
HvXTH24	DLEFLGNST...GNPYTL	HTNVY
HvXTH3	DFEFLGNRT...GEPYII	QTNVY
HvXTH13	DLEFLGNVT...GEPYTL	HTNIF
HvXTH4	DLEFLGNST...GEPYTL	HTNIF
HvXTH14	DIEFMGNSS...GDPYVM	NTNVW
HvXTH1	DIEFMGNLS...GDPYVM	NTNVW
HvXTH6	DMEFMGNSS...GHPVVL	NTNVW
HvXTH5	DMEFMGNSS...GHPVVL	NTNVW
HvXTH7	DMEFMGNSSGHPVVL	NTNVW
HvXTH2	DFEFLGNET...GQPYTL	HTNVY
HvXTH15	DFEFLGNVD...GENITL	QTNVF
2UWA	DIEFLGTIP...GKPYTL	QTNVF
HvXTH10	DVELLGTVP...GEPYTL	QTNVY
HvXTH16	DMEFLGTIP...GEPYTL	QTNVY
HvXTH12	DFEFLGSRW...GGQWRV	QTNVY
HvXTH9	DFEFLGNVR...GKEWRV	QTNVY
HvXTH11	DFEFLGNVR...GREWRV	QTNVY
HORVU4Hr1G085940.2	QCYVNLVLVLQWVNDLHALISPAAKGTPLTLVLLGKSKNALLSTFLFLDQFVWLGRSGIY	

	120	130	140	150	160
HvEG16_Hordeum_vul	VAGSGG...GREAVHELFPDSSDGFHHYAVAWDAEAIE...WRVDGEVLRREERRD...				
TaEG16_Triticum_ae	VAGCGG...GREAVHELFPDSSDGFHHYAVAWGAEAIE...WRVDGE...REERRD...				
TaEG16_Triticum_ae	VAGCGG...GREAIHDLFPDSSDGFHHYAVAWGAEAIE...WRVDGEVLRREERRD...				
OsEG16_Oryza_sativ	VAGGGG...GREQIHVLPFDS SDGFHHYAIW GADAEIE...WRIDGELIRREERVA...				
OsEG16_Oryza_sativ	VAGGGG...GREQIHVLPFDS SDGFHHYAIW GADAEIE...WRIDGELIRREERVA...				
OsEG16_Oryza_sativ	VAGGGG...GREQIHVLPFDS SDGFHHYAIW GADAEIE...WRIDGELIRREERVA...				
TaEG16_Triticum_ae	VAGGGG...GREMVHQLFPDSSDGFHHYAVAWSAEAVE...WRVDGEVLRREERRD...				
ZmEG16_Zea_mays_GR					MRE...
ZmEG16_Zea_mays_NP	VGGNGG...GREQIHALFPDSSDGFHHYAIWDAAAIE...WRVDGELVRDRKRR...				
ZmEG16_Zea_mays_Zm	VGGNGG...GREQIHALFPDSSDGFHHYAIWDAAAIEWRWRVDGELVRDRKRR...				
VvEG16	TAGTGG...NREAIHDLGFDCSDGFHEYV IKWGPDLIQ...WLIDGKVI RSVVRAD...				
PtEG16	ASGTGG...NREEIHDLGFDCSDAFHEYV IKWCPNFIE...WLIDGKVI RSVVRAD...				
1UN1	TGGKGG...DREQRIYLWFDPTKEFHYSVLWNMYMIV...FLVDVDP IRVFKNCK...D				
HvXTH8	SGGKGG...DREQRIYLWFDPTKDYSYSVLWNLYMIA...FFVDDTPI R VFKNSK...D				
HvXTH22	SDGKGG...EREQQFVLWFDPTADFHYSILWNPLNII...LYIDGTP IRVFKNNE...A				
HvXTH20	TQGGGG...QREQQFRLWFDPTNDFHTYSILWNPKHII...FMVDDMP IRDFKNLE...G				
HvXTH19	TQGGGG...QREQQFRLWFDPTNDFHTYSILWNPKHII...FMVDDMP IRDFKNLE...G				
HvXTH18	TQGGGG...QREQQFRLWFDPTNDFHTYSILWNPKHII...FMVDDMP IRDFKNLE...G				
HvXTH17	TQGGGG...QREQQFRLWFDPTNDFHTYSILWNPKHII...FLVDMP IRDFRNME...G				
HvXTH23	AQGGGG...QREQQFRLWFDPTKAFHTYSIIWN PQHVI...FAVDGTAI RDFKNHE...A				
HvXTH21	SQGGGG...GREQQFRMWFDPTADFHYSVLWNPTHIL...FYVDGTP IREHRNREA...A				
HvXTH24	ARGVGG...SREKGYRLWFDPSQDFHTYSIIWTQOYIR...FLVDNKLIR QIKNM...M				
HvXTH3	RSGVGG...GREMRHSLWFDPTADFHYSILWNPKQIV...FFVDKVAIR EYRNSA...K				
HvXTH13	ANGVGG...NREEQFRLWFDPTADFHYSIDWNPKRIT...ILVDGVP IR SFRNNE...E				
HvXTH4	AYGVGG...GREQQFKLWFDPSAEYHTYSIWNPNRRIT...IEVDGVT IR SYDNNE...E				
HvXTH14	ASGDGG...KKEHQFYLWFDPSADFHTYKIWNPKNII...FEVDGVP VR TFKKYD...A				
HvXTH1	ASGDGG...KKEHQFYLWFDPTADFHYSKIWNPKNII...FQVDDVP VR TFKKYD...A				
HvXTH6	ANGDGG...KKEHQFDLWFDPAADYHTYTIIWNPENIL...FKVDNLF IR SFKRFA...A				
HvXTH5	ANGDGG...KKEHQFDLWFDPAADYHTYTIIWNPENIL...FKVDNLF IR SFKRFA...A				
HvXTH7	VNGDGG...KKEHQFDLWFDPAADYHTYTIIWNPENIL...FKVDNLF IR SFKRFA...A				
HvXTH2	AAGVGG...GKEMQFRPWFDPTDGYHNYTIAWTPCAV...WYVDGAP IR AFRNYER...T				
HvXTH15	VNGDGG...DREQRLSLWFDPAADFHEYKILWNPYHLV...ILVDVDP IR VLRNLTGQV				
2UWA	IEGSGDYN.IIGREMRIHLWFDPTQDYHNYAIYWTSEII...FFVDDVP IR RYPRK...A				
HvXTH10	VRGTGDAHPIVGREMRHFLWFDPTAAAFHHYAVLWNPDEIV...FLVDVDP VR RYQK...A				
HvXTH16	VRGSGDGR.IIGREMRHFLWFDPTAGFHNYAILWNPDAIT...FFVDDVP IR RYERK...A				
HvXTH12	GNGGST...SRGREERYLLFPDPTLAAHRYSIWAPTHII...FYVDGTAIR EVVRHP...G				
HvXTH9	GDGST...AVGREERYGLWFDPTDHFHRYAILWNTNRTIV...FYVDGTP IR EVVRSE...A				
HvXTH11	GNGGST...GAGREERYDLFPDPTDHFHYSILWNTQHRIC...FYVDETP IR EVVRTE...A				
HORVU4Hr1G085940.2	QNKER...TDRIARISLY...CWMASSVI.CASLVE...LGE LKRLS...				

	170	180	190	200	210
HvEG16_Hordeum_vul	.G.EEPWPE.K	PMFLYASFW	DASGVDEGR	WTGTYHGR	.....DAPYVCSYRDVRVP.VA
TaEG16_Triticum_ae	.....	.....	.....	.....	.....
TaEG16_Triticum_ae	.G.EPWPPE.K	PMFLYASFW	DASGVDEGR	WTGTYHGR	.....DAPYVCSYRDVRVP.VA
OsEG16_Oryza_sativ	.G.EPWPPE.K	PMFLYASVWD	ASHINDGK	WTGTYHGR	.....DAPYVCSYRDIRVP.LA
OsEG16_Oryza_sativ	.G.EPWPPE.K	PMFLYASVWD	ASHINDGK	WTGTYHGR	.....DAPYVCSYRDIRVP.LA
OsEG16_Oryza_sativ	.G.EPWPPE.K	PMFLYASVWD	ASHINDGK	WTGTYHGR	.....DAPYVCSYRDIRVP.LA
TaEG16_Triticum_ae	.G.EPWPPE.K	PMYLYASLWD	ASDVDEGR	WTGTYHGR	.....DAPYVCSYRDVRVP.VA
ZmEG16_Zea_mays_GR	.G.EPWPPE.K	PMYLYASVWD	ASHIADGA	WTGTYHGR	.....DEPYVCSYKDVRVP.TAE
ZmEG16_Zea_mays_NP	.G.EPWPPE.K	PMYLYASVWD	ASHIADGA	WTGTYHGR	.....DEPYVCSYKDVRVP.TAE
ZmEG16_Zea_mays_Zm	.G.EPWPPE.K	PMYLYASVWD	ASHIADGA	WTGTYHGR	.....DEPYVCSYKDVRVP.TAE
VvEG16	.G.EGFPQ.K	PMFLYASVWD	ASYIDEGR	WTGPYVGC	.....DAPYICLYKNVNP.VG
PtEG16	.G.EGFPPE.K	PMFLYASVWD	ASYICDAT	WTGPYVGC	.....DAPYVCLYKIDICVP.VG
1UN1	LG.VKFPFNQ	PMKIYSLWN	ADD.....	W.ATRGGLEK.TDWSK	APFIASYSRFHI..DG
HvXTH8	LG.VRYPFDQ	PMKLYSLWN	ADD.....	W.ATRGGLEK.TDWSK	APFVASYSRFHI..DG
HvXTH22	NG.VPFPTRQ	PMHVFASLWN	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH20	KG.IAFPKNQ	PMRLYSLWN	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH19	KG.IAFPKNQ	PMRLYSLWN	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH18	KG.IAFPKNQ	PMRLYSLWN	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH17	KG.IAFPKNQ	PMRLYSLWN	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH23	RG.VSFPKQ	PMRLYSLWN	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH21	TG.VPYLRSQ	PMRVYASVWD	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH24	NG.SPYPNYQ	PMRVFSTIWN	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH3	PN.KFPIMK	PMYVFSIWN	ADD.....	W.ATRGGLEK.TDWSK	APFVASYSRFHI..DG
HvXTH13	HG.VAFPQ	PMRLHGLWN	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH4	HG.VPFPQ	PMRVYASVWD	ADD.....	W.ATQGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH14	.G.LPFPSSQ	PMTHATLWD	DGSY.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH1	.D.LPYPSSQ	PMTHATLWD	DGSY.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH6	.G.LPYPTSK	PMRLHATLWD	DGSY.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH5	.G.LPYPTSK	PMRLHATLWD	DGSY.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH7	.G.LPYPTSK	PMRLHATLWD	DGSY.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH2	HG.VAFPQ	PMRLHATLWD	DGSY.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH15	AE.YEFPQ	PMRLHATLWD	DGSY.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
2UWA	SD.ATFPL	RLWVYGSVWD	ASS.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH10	VE.ATFPE	RMWYGSVWD	ASS.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH16	TE.LTFPD	RMWYGSVWD	ASS.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH12	MG.GDFFA	KPMAYATLWD	DGSA.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH9	MG.AQFPS	KPMAYATLWD	DGSA.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HvXTH11	MG.AAFPS	KPMAYATLWD	DGSA.....	W.ATRGGVVK.TDWSK	APFVASYSRFHI..DG
HORVU4Hr1G085940.2	.G.EEPWPE.K	PMFLYASFW	DASGVDEGR	WTGTYHGR	.....DAPYVCSYRDVRVP.VA

	220	230	240
HvEG16_Hordeum_vul	LSTEEEEEECQ.....	DDADAGDEAD.....	AAGAAEE...EEE.
TaEG16_Triticum_ae	.....	.....	.....
TaEG16_Triticum_ae	LSAEEEEEEEE.....	.....	.....
OsEG16_Oryza_sativ	LSLEDEEDPYKCA	CVGDASAAIAAADAAEQVDAGDAPA.....	AAAAADA...AEEV
OsEG16_Oryza_sativ	LSLEDEEDPYKCA	CVGDASAAIAAADAAEQVDAGDAPA.....	AAAAADA...AEEV
OsEG16_Oryza_sativ	LSLEDEEDPYKCA	CVGDASAAIAAADAAEQVDAGDAPA.....	AAAAADA...AEEV
TaEG16_Triticum_ae	LSAGEEEEEWQ.....	DDTNAGDEAD.....	AAATTCE...D..
ZmEG16_Zea_mays_GR	HSVED.....	AAHAPAGDPPIA.....	AEAAAAA...EE..
ZmEG16_Zea_mays_NP	HSVED.....	AAHAPAGDPPIA.....	AEAAAAA...EE..
ZmEG16_Zea_mays_Zm	HSVED.....	AAHAPAGDPPIA.....	AEAAAAA...EE..
VvEG16	TAVE.....	.....	.....
PtEG16	TAVEC.....	.....	.....
1UN1	C.....	EASVEAK.....	FCATQG...ARWW
HvXTH8	C.....	EASAEAK.....	LCATQG...ARWW
HvXTH22	CVW.....	HGGASPT.....	RCGGDHLPSASSWM
HvXTH20	CVVTAGGRPH...CG.....	A.....	SVGTDVAP...GTGAA...GEWY
HvXTH19	CVVTAGGRPR...CG.....	A.....	SVGTDVAP...GTGAA...GEWY
HvXTH18	CVVTAGGRPR...CG.....	A.....	SMGTEAAP...GTGASGA...AGEWY
HvXTH17	CVVTAGGRPR...CG.....	A.....	SIGTDAAAP...GTGASGA...AGEWY
HvXTH23	CVMS.GGAQR...C.....	.....	PAGTMEAS...AAGG...GSWW
HvXTH21	C.....	ASQDAA.....	ACANSN...GAWM
HvXTH24	C.....	SQGQNSN.....	VCGQSSP...NGLF
HvXTH3	CAW.....	PSGPAPP.....	ACAAATG...DSWW
HvXTH13	C.....	RSPSPGVA.....	WCGDEPPG...STWF
HvXTH4	C.....	RSPSPGVS.....	WCGAEPAG...SPVF
HvXTH14	CVH.....	DKATNKT.....	SCPAGS...DAWM
HvXTH1	CVS.....	NGGS.S.....	ACPAGS...DAWM
HvXTH6	CVS.....	G.....	ACHAGS...DRWM
HvXTH5	CVS.....	G.....	ACHAGS...DRWM
HvXTH7	CAS.....	G.....	ACHAGS...DGWM
HvXTH2	C.....	E.C.....	YGGDCVY...TCA...GAFR
HvXTH15	C.....	DNAS.....	STPCDST...DLWW
2UWA	CTV.....	EAAS.....	SCN...PASV
HvXTH10	CEV.....	GAPP.....	SCR...PVPA
HvXTH16	CGP.....	GAPP.....	SCR...PVPA
HvXTH12	CRV.....	ADPASPALRLAGGDGCDLLGL...	MTADY
HvXTH9	CAS.....	HDRAQPA.....	SC.....
HvXTH11	CPVNR.....	IY.....	HSAA.A...ACG...TPWY
HORVU4Hr1G085940.2	AVGLLQLA.....

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HvEG16_Hordeum_vul      .....EMDAGDGED.....
TaEG16_Triticum_ae      .....
TaEG16_Triticum_ae      .....
OsEG16_Oryza_sativ      D....AGDAPAATAAADVAAEQ.....VDAGDVPASAAAADAVKEVDAGAGKD....
OsEG16_Oryza_sativ      D....AGDAPAATAAADVAAEQ.....VDAGDVPASAAAADAVKEVDAGAGKD....
OsEG16_Oryza_sativ      D....AGDAPAATAATDVAAEQ.....VDAGDVPASAAAADAVKEVDAGAGKD....
TaEG16_Triticum_ae      .....
ZmEG16_Zea_mays_GR      .....EKDAGASEV.....
ZmEG16_Zea_mays_NP      .....EKDAGAGEV.....
ZmEG16_Zea_mays_Zm      .....EKDAGA.....
VvEG16                  .....SCDS.....
PtEG16                  .....
1UN1                    DQKEFQDLDADFQYRRLSWVRQ.KYTIYNYCTDR...SRYPS..MPPECKRD.....
HvXTH8                  DQPEFQDLDAAQYRRLLWVRK.EHTIYNYCTDR...ERYAA..MSPECKRD.....
HvXTH22                 G....QRLDWWSWMTLNWVRM.NYMTYDYCADR...KRYPH.GFPAECIIPIGRI....
HvXTH20                 N....QELDLTRQQRMRWVQS.NYMIYNYCTDP...KRFAQ.GVPAECSM.....
HvXTH19                 N....QELDLTRQQRMRWVQS.NYMIYNYCTDP...KRFAQ.GVPAECSM.....
HvXTH18                 N....QELDLTLQQRMRWVQS.NYMIYNYCTDP...KRVAQ.GVPAECSLPRP....
HvXTH17                 N....QELDLTRQQRMRWVQS.NYMIYNYCTDP...KRVAQ.GVPAECSLPRP....
HvXTH23                 N....QELSGMGYRRMRWVRQ.KFMIYNYCTDP...KRVAQ.GVPAECKLR.....
HvXTH21                 Y....QELDATAALDRLQWVK.NYMIYNYCTDT...WRFKD.GAPPCCASK.....
HvXTH24                 N....QQQDQMQQQQVKEVDA.KYKVYDFCDDS...KRRI..GSSECQSQ....
HvXTH3                  DQPPAWALDDGQRDSGWVAR.NLVIYDYCGDR...KRFT..VPECALRTTTS....
HvXTH13                 E....RGLDA...AALRRARD.AHMIYDYCKDL...QRYKGSGLPKC...VVD.....
HvXTH4                  N....LAPKARADMOWVRDMGYVIYDYCTDR...SNRYNDTTRPKEC...SLPRP....
HvXTH14                 H....RELDGELSTVAVAAER.NCLSYNYCADG...WRFPK.GFPGE...CGRK.....
HvXTH1                  S....TELDKALGTVAWAES.KYMSYDYCTDG...WRFPN.GFPAEC...SRN.....
HvXTH6                  R....KQLDGEWGTVKWAER.SYMRNYNCEDG...YRFPO.GLPAEC...NRY....
HvXTH5                  K....KQLDGAEWGTVKWAER.SYMRNYNCEDG...YRFPO.GLPAEC...NRY....
HvXTH7                  N....RQLDGEWGTVKWAER.SYMRNYNCEDG...YRFPO.GFPAEC...SRY....
HvXTH2                  G...CGGLTGDRGKMQWVQD.NYRIYDYCADHE..AGKVPG...VECSLPQY....
HvXTH15                 NARRHRRLSVREQAAYENVRR.TYMNIDYCADK...DRFQNGKLPV...CSYTT....
2UWA                   S..P.YGQLSQQVAAAMEWVQK.NYMVYNYCDP...TRDHT..LTP...EC.....
HvXTH10                 G..P.GGGLSAQQSAAMSWAQQ.RAMVYYYCQDG...SKDRS..NYP...EC.....
HvXTH16                 S..P.VGTGLTRQYYAAMRWVQK.RHMYYYYCQDF...RRDRS..LTP...EC.....
HvXTH12                 ....AVMTPQKRAAMRAFR.ARMITYTVCYDA...ARYAA.GPFP...CDNSDEERGTFW
HvXTH9                  E..P..EGMPARQRAAMERVRA.RHMTYGYCYDR...ARYPA..PLP...CRVGAEEA.MYL
HvXTH11                 E..P.VAAALSGEQRASMSAFRR.GHMSYSYCHDR...RRYPV..ALS...CDVAVLPR.LFG
HORVU4Hr1G085940.2    ..P..KKVTPRVTGAFGFVTS.....LISCYQQ...LPARAPL.....

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HvEG16_Hordeum_vul      .....
TaEG16_Triticum_ae      .....
TaEG16_Triticum_ae      .....
OsEG16_Oryza_sativ      .....
OsEG16_Oryza_sativ      .....
OsEG16_Oryza_sativ      .....
TaEG16_Triticum_ae      .....
ZmEG16_Zea_mays_GR      .....
ZmEG16_Zea_mays_NP      .....
ZmEG16_Zea_mays_Zm      .....
VvEG16                  .....
PtEG16                  .....
1UN1                    .....RDI.....
HvXTH8                  .....RDV.....
HvXTH22                 .....
HvXTH20                 .....
HvXTH19                 .....
HvXTH18                 .....
HvXTH17                 .....
HvXTH23                 .....
HvXTH21                 .....
HvXTH24                 .....
HvXTH3                  .....
HvXTH13                 .....
HvXTH4                  .....
HvXTH14                 .....
HvXTH1                  .....
HvXTH6                  .....
HvXTH5                  .....
HvXTH7                  .....
HvXTH2                  .....
HvXTH15                 .....
2UWA                   .....
HvXTH10                 .....
HvXTH16                 .....
HvXTH12                 AWGESKTVVMKTRGRGRGRGSRAGAGARGRAGAASS
HvXTH9                  PSGEA.....RSSDRR.R.....HGKRHRRADSAL
HvXTH11                 PDGMK.....YGGDRRHR.....RGGRRRSDVVM
HORVU4Hr1G085940.2    .....AKVKA

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