

Figure S1. Alignment and consensus sequence from fungal PP1 and PPZ phosphatases. Alignment was performed with Clustal Omega. Consensus sequences and shading of residues was performed with pyBoxshade (<https://github.com/mdbaron42/pyBoxshade>). The threshold fraction for consensus was set to 0.8. For a given phosphatase **residue** denotes that all residues are the same, **residue** denotes that it is identical to the consensus, **residue** that it is similar to the consensus, and **residue** that it is different from the consensus. A snapshot of the pyBoxshade preferences setting is presented at the end of the alignments

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.....10.....20.....30.....40.....50.....
2YaLi_Glc7 -----madqkeVLDLsVIDRLLEVRG-sRPGKqVqLmEhEIRYLCtKAREIFIqQP
2Mgui_PP1 -----madhgeaDIDLsIvDRLLEVRG-sRPGKqVtLmEhEIRYLCtKAREIFIqQP
2DEHA_Glc7 -----madhgeaDIDLsIvDRLLEVRG-sRPGKqVtLlEhEIRYLCtKAREIFIqQP
2Mfar_PP1 -----maehqeVDIDLsIvDRLLEVRG-sRPGKqVtLlEhEIRYLCtKAREIFIqQP
2Ct_Glc7 -----msnieddssIsVDsIvDRLLEVRG-sRPGKqVaLsEnEIRYLCtKAREIFIqQP
2Cgla_Glc7 -----mesqqVDVDSIIDRLLEVRG-sKPGqqVdLeEhEIRhLCsKARSIFIkQP
2Ca_Glc7 -----msnnieddssIsVDnIvDRLLEVRG-sRPGKqVtLtEnEIRFLCtKAREIFIqQP
2Cdub_PP1 -----msnniddssIsVDnIvDRLLEVRG-sRPGKqVtLtEnEIRFLCtKAREIFIqQP
2Klac_PP1 -----mdqqsVDVdDIIDRLLEVRG-lKPGHqVdLeEhEIRYLCsKARSIFIkQP
2Lther_Glc7 -----metpaVLDLnIIDRLLEVRG-sKPGqqVdLeEhEIRFLCsKARSIFIkQP
2Ag_PP1 -----msmetppVIDnIIDRLLEVRG-sKPGqqVdLeEhEIRYLCsKARSIFIkQP
2Ecym_Glc7 -----metppVIDnIIDRLLEVRG-sKPGqqVdLeEhEIRYLCsKARSIFIkQP
2Tbla_PP1 -----meatqVDVnIIDRLLEVRG-sKPGqqVdLeEhEIRYLCsKARSIFIkQP
2Tdel_PP1 -----metpaVDVnIIDRLLEVRG-sKPGqqVdLeEhEIRYLCsKARSIFIkQP
2Sc_Glc7 -----mdsqpVDVnIIDRLLEVRG-sKPGqqVdLeEhEIRYLCsKARSIFIkQP
1Tmel_Glc7 -----madqteVLDLsIIDRLLEVRG-sRPGKqVqLlEaEIRYLCtKAREIFIsQP
1Bcin_PP1-A -----maepeVLDLsIIDRLLEVRG-sRPGKqVqLlEqEIRYLCtKAREIFIsQP
1Nc_PP1 -----madhteVLDLsIIDRLLEVRG-sRPGKqVqLlEaEIRYLCtKAREIFIsQP
1Mthe_PP1 -----madqhdVLDLsIIDRLLEVRG-sRPGKqVqLlEaEIRYLCtKAREIFIsQP
1Bbas_PP1 -----madqhdVLDLsIIDRLLEVRG-sRPGKqVqLlEsEIRYLCtKAREIFIsQP
1Anam_PP1 -----madqqdVLDLsIIDRLLEVRG-sRPGKqVqLlEtEIRYLCtKAREIFIsQP
1Npar_PP1 -----maeqeVLDLsIIDRLLEVRG-sRPGKqVqLlEtEIRYLCtKAREIFIsQP
1Bory_Glc7 -----maeteVLDLsIIDRLLEVRG-sRPGKqVqLlEtEIRYLCtKAREIFIsQP
1Uree_PP1 -----madqneIDLsIIDRLLEVRG-sRPGKqVqLlEsEIRhLCtKAREIFIsQP
1Tver_PP1 -----madqneIDLsIIDRLLEVRG-sRPGKqVqLlEsEIRhLCtKAREIFIsQP
1Anid_Glc7 -----madqdVLDLsIIDRLLEVRG-sRPGKqVqLlEsEIRYLCtKAREIFIsQP
1Aory_Glc7 -----msekeeVLDLsIInRLLEVRG-sRPGKhVrLqDsEIqYLChKAREvFIsQP
1Af_PP1 -----madqeVLDLnIIDRLLEVRG-sRPGKqVqLlEaEIRYLCtKAREIFIsQP
3Sp_PP1-1 -----msnpdVLDLsIIDRLLEVRG-sRPGKqVqLsEdEIRFLCnKAREIFIsQP
3Sp_PP1-2 -----mdyDIDaIEKLvkArN-gKpsKqVqLsDaEIRYLCttsRsIFLsQP
3Sj_PP1 -----mskqdVLDLsVIDRLLEVRG-sRPGKqVqLaEhEIRFLCnKAREIFIsQP
3Sj_Sds21 -----mepDvDtIEKLLkVRn-nKPGKqVqLaDsEIRFLCsKAREIFLeQP
3Scot_PP1 -----msnqdVLDLsIIDRLLEVRv-nRPGKqVqLaEnEIRFLCnKAREIFIsQP
3Scot_Sds21 -----mdyDIDnIEKLlkVqh-vKPGRqtqLsEaEIRYLCktARSFLdQP
3Scry_PP1 -----msnqdVLDLsIIDRLLEVRG-nRPGKqVqLaEnEIRFLCnKAREIFIsQP
3Scry_Sds21 -----mdyDIDtIEKLlkVqh-vKPGRqtqLteEaEIRYLCttsRsIFLnQP
3Plac_PP1 -----measnteIDIDqVlaRLLEVRG-sRPGKqVqLpEyEIKFLCtKAREIFInQP
3Pjir_PP1 -----madqheIDLsVIDRLLEVRG-sRPGKqVqLaEcEIRFLCiKAREIFvnQP
3Nirr_PP1 -----madqneIDLnIIRLLEVRG-nRPGKqVtLgEyEIRYLCtKAREIFInQP
4GALMADRAFT_Glc7 -----madtateIDLsVIDRLLEVRG-nRPGKpVqLaEyEIKYLCtKAREIFInQP
4PILCDRAFT_Glc7 -----madstteIDLsVIDRLLEVRG-nRPGKpVqLqEyEIKYLCtKAREIFInQP
4Shir_Glc7 -----madsateIDLsVIDRLLEVRG-nRPGKpVqLqEyEIKYLCtKAREIFInQP
4Sver_PP1 -----maestteIDLsVIDRLLEVRG-nRPGKpVqLqEyEIKYLCtKAREIFInQP
4Pgig_PP1 -----madttteIDLsVIDRLLEVRG-nRPGKpVqLqEyEIKYLCtKAREIFInQP
4Bbot_PP1 -----maesspeIDLsVIDRLLEVRG-nRPGKpVqLqEyEIKhLCmKAREIFInQP
4Cvis_PP1-A -----maeqaeIDLsVIDRLLEVRG-nRPGKpVqLqEyEIKYLCtKAREIFInQP
4Cvis_PP1-B -----mnlndiqkeVIDsVIDRLLEVRG-nRPGKpVnLhEyEIKYLCaKAREIFlaQP
4Cgat_PP1 -----mgeqpeIDLsVIDRLLEVRG-nRPGKaVqLaEyEIKYLCtKAREIFIsQP
4Cneo_PP1 -----mgeqpeIDLsVIDRLLEVRG-nRPGKaVqLaEyEIKYLCtKAREIFIsQP
4Tmes_PP1 -----madqtneIDLsVIDRLLEVRG-nRPGKaVqLqEyEIKYLCtKAREIFIsQP
4Umay_Glc7 -----madnttleVLDLnVIDRLLEVRG-sRPGKpVhLeEyEIKYLCtKARDIFInQP
4Phub_PP1 -----madnstpeVLDLnVIDRLLEVRG-sRPGKpVhLeEyEIKYLCtKARDIFInQP
5Wich_Glc7 -----mseaeVLDLsVIDRLLEVRG-nRPGKpVqLqEyEIKYLCtKAREIFIsQP
5Rgra_PP1 -----maaeqqdIDLsIIDRLLEVRG-nRPGKqVqLqEyEIKFLCtKAREIFInQP
5Pgra_PP1 -----madqggqdIDLsVIDRLLEVRG-nRPGKqVqLqEyEIKFLCtKAREIFInQP
6Rdel_PP1 -----mtevpVNVDSIIRLLEVRG-nRPGKqVqLgEqEIRYLCtAREIFMsQP
6Ccor_PP1 msqilnnpnagseeVDInsIIDRLLEVRG-sRPGKhVlLaEhEIKYLCtAREIFLgQP
6Crev_PP1 -----maddgVNVDSIIqRLLEVRG-sRPGKeVqLhEaEIHwLCvtAREIFInQP
6Spun_PP1 -----mmaenqeVDVDSIIRLLEVRG-sRPGKqVqLaEhEIRYLCtKAREIFInQP
6Gpro_PP1-A -----mgepsqdVDVDSIIRLLEVRG-sRPGKqVqLaEhEIRYLCtKAREIFInQP
6Gpro_PP1-B -----maeqqvVDIDLsIIDRLLEVRG-nRPGKqVqLaEhEIRYLCtKAREIFvnQP
6AMAG_PP1-A -----mapprrat---hRwh-rar-vRvGKqrpv----Rsq--vrpsrqrvsP
6Rallo_PP1 -----msaepeVDVDSIIRLLEVRG-sRPGKqVqLaEhEIRhLCvKsREIFMsQP

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2Mgui_Ppz1 -----ntidIEDlIqRLLDaGYsgKkSKnLcLKNsEIqlVCakAREIFLsQP-
2DEHA_Ppz1 -----gsidIEnlIqRLLDaGYsgKkTKsVcLKNhEIqlICakARNllsQP-
2Mfar_Ppz -----nsidIEnlIqRLLDaGYsgKkTKsLcLKNqEIqlVCatAREIFLqQP-
2Ct_Ppz1 -----tnssqIDvwIdKLInaYs-KrTKnVcLKNsEieiICssAREIFLsQP-
2Cgla_Ppz1 -----kqvnIDeaIqRLLDvGYsgKknKafcLKNsEiiqICiqAREVFLNQP-

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2Cgla_Ppz2	-----kpidIDdtIqKLLDaGYaaKrTKnVcLKNsEiaqICqkAREIFLaQP-
2Ca_Ppz1	-----ntidIDslIdKLLnaGFsgKrTKnVcLKNtEielICasAREIFLsQP-
2Cdub_Ppz	-----ntidIDslIdKLLnaGFsgKrTKnVcLKNsEielICasAREIFLsQP-
2Klac_PpzA	-----kpidIDetIqKLLDaGYsaKkTRsVaLKNsEItqICqmAREIFLsQP-
2Klac_PpzB	-----kpidIDetIqKLLDaGYsaKkTRsVaLKNsEItqICqmAREIFLsQP-
2Lther_Ppz1	-----rpldIDetIqKLLDaGYsgKrTKnVcLKNsEiaqICnqvREIFLsQP-
2Ag_Ppz	-----kpIdIDemIqKLLDaGYlgKrTRnVcLKNsEiaqIChlAREIFLsQP-
2Ecym_Ppz	-----kpIdIDemIqKLLDaGYlgKrTRnVcLKNsEiaqIChlAREIFLsQP-
2Tbla_PpzA	-----kpidIDltIqKLLDaGYaaKkTKnVcLKNsEiaqIChlvREIFLsQP-
2Tdel_PpzA	-----rpInIDetIqKLLDaGYagKrTKnVcLKNsEiaqIChmAREMFLsQP-
2Sc_PPZ1	-----kpidIDetIqKLLDaGYaaKrTKnVcLKNsEiaqICikAREIFLsQP-
2Sc_PPZ2	-----rpvdIDeiIqRLLDaGYaaKrTKnVcLKNsEiaqIChkAREIFLaQP-
1Tmel_Ppz1	-----mItRLLDaGYagKvTKaVcLKNaEitaIChaAREVFLsQs-
1Bcin_Ppz	-----kdkdLDdyIsRLLDaGYqgKsTKgVcLKsaEinsIClrAREIvLeQP-
1Nc_PP-Z	-----kdidLDdfIkRLLDaAYagKvTKsVcLKNaEivaIChrAREIFLsQP-
1Mthe_Ppz	-----kdidLDdfIkRLLDaAYagKvTKsVcLKNaEitaIChrAREVlLtQP-
1Bbas_Ppz	-----kemdLDdyIkRLLDaGYagKvTKsVcLKNaEivaICqrAREVlLsQP-
1Anam_Ppz	-----ktsdLDdmIsRLLDaGYagKvTKtVcLKNaEifaICqaAREVFLsQP-
1Npar_Ppz1	-----ksidLDdmIsRLLDaGYsaKvTKtVcLKNaEifaICqaAREIFLsQP-
1Bory_Ppz1	-----ktmdLDdmIqRLLDaAYagKvTKtVsLKNaEifaICsaAREVFLsQP-
1Uree_Ppz	-----ksidVDdmItRLLDaGYsaKvTKaVcLKNaEiaICaaARELlLsQP-
1Tver_Ppz	-----ksidVDdmItRLLDaGYstKvTKaVcLKNaEiaVctaARELlLtQP-
1Anid_Ppz1	-----ksidLDdmItRLLDaGYstKvTKtVcLKNaEitaICtaAREIFLsQP-
1Aory_Ppz1	-----lksidLDdmItRLLDaGYstKvTKtVcLKNaEitaICtaAREIFLsQP-
1Af_PPZ	-----lksidLDdmIsRLLDaGYstKvTKtVcLKNaEimaICsaAREIFLsQP-
3Sp_PPZ	-----vslnVDemIqRLLIhVGYsrKsSKsVcLKNaEitsICmavREIFLsQP-
3Sj_Pzh1	-----gglnVDemIqRLLIhaGYsrKsTKsVcLKNaEitsICmavSEIFLsQP-
3Soct_Ppz	-----vslnVDemIqRLLIhaGYsrKsSKsVcLKNaEivsICmavREIFLsQP-
3Scry_Ppz	-----vslnVDemIqRLLIhaGYsrKsSKsVcLKNaEivsICtavREIFLsQP-
3Plac_Ppz	-----knidVDdlIqRLLDaGYtgKaTKsVvLKNaEivaICAavREIlLsQP-
3Pjir_Ppz-A	-----Qp-
3Nirr_PP-Z	-----aglaLDdyIsRLLDaGYsaKvTKtVcLKNaEifqIClaARDtFLaQs-
4GALMADRAFT_Ppz1	-----kqfdVDdmIqRLLDvGYtgKvSKsLcLKNtEitaIClaARDVFLsQP-
4PILCRDRAFT_Ppz1	-----ksldVDdmIqRLLDvGYtgKvSKsLcLKNaEiaqICqaAREVFLnQP-
4Shir_Ppz	-----ksfdIDdmIqRLLDvGYtgKvSKsLcLKNvEiaaICqaAREVFLsQP-
4Sver_PPZ	-----rtldIDdmIaRLLEvGYsgKvSKhVcLKNtEitsLclaAREVFLsQP-
4Pgig_PPZ	-----apldIDdmIqRLLDvGYtgKvSKsLcLKNtEitaICqaAREVFLnQP-
4Bbot_PPZ	-----rtfdIDdmIsRLLEvGYsgKaSKaVcLKNnEitaICqaAREVFLsQP-
4Cvis_PPZ	-----ntidIDslIsRLLIatAYtgKvSKsLpLKtsEitsIClaARDIFLsQP-
4Cgat_PPZ	-----mIqRLLaGYsgKvTKsppLKNaEivsVcaaAREVFLsQP-
4Cneo_PPZ	-----qildVDnmIqRLLaGYsgKvTKsppLKNaEitsVcaaAREVFLsQP-
4Tmes_PPZ	-----gamdLDnmIsRLLaGYsgKvTKsppLKNaEianVcaaAREVFLsQP-
4Umay_PPZ	-----vrtfdIDdmIsRLLaGYsgKipK-paLKNaEitaVCqaAREIFLsQP-
4Phub_PPZ	-----vrtfdIDdmIsRLLaGYsgKipK-paLKNaEitaVCqaAREIFLsQP-
5Wich_PP-Z	-----gsidIDdmIqRLLniGYsaKySKsLpIKpeELtqLlqlsRNLlLnQP-
5Rgra_PPZ1	-----mIsRLLDaGYsgKvTKsVcLKNaEitaICqaAREVFLsQP-
5Pgrr_PPZ	-----qafdIDeiInRLLDvGYstKiTKsVcLKNsEitaIslaAREVlLsQP-
6Rdel_PPZ-A	-----sttnIDeyInRLLaGYssKvSKqLcLRhsEvtaICraAmDIFLsQP-
6Rdel_PPZ-B	-----wnldIDecIhRLLDiGlktKvpKsIcfRNSEivaICraAQVFLsQP-
Rdel_PPZ-C	-----sttnIDdyInRLLaGYssKvSKqLcLRssEvtaICraAmDIFLeQP-
6Rdel_PPZ-D	-----dglqIDdyIrRLLDaGYasKvpKqLcLKNaEvtlICrtAmEIFLsQPy
6Rdel_PPZ-E	-----MNscIkRLLIqvGmnkqigKsVcLnpsEitaICrsvyEIFMnQP-
6Rdel_PPZ-G	-----sttnIDeyInRLLaGYssKvSKqLcLRhsEvtaICraAmDIFLsQP-
6Ccor_PPZ	-----gginIDdcIsRLLaGstaKtpKaLdIeawEidsICalsREIFLsQP-
6Crev_PPZ	-----kqfsVDdmIfRLLDaGFsgRvSKsVcLRNsEivaVChaAREVFLaQP-
6Spun_PPZ	-----kdkyIDdiIaRLLDarn-hKvSKsLcLKNsEvlsVChkAREVFLsQP-
6Gpro_PPZ	-----aaeisLDdiIqRLLgqr-gaKpgKaLpvKNqEImfVCqrAREVFLdQPi
6AMAG_PPZ-A	-----aktldIDdvIhRLLInaGs-gKvgRnLpLKNsEiitIlhaARDIFLsQP-
6AMAG_PPZ-B	-----MgsgqsKfLDaGr-gKngvaapn-----
6Rallo_Ppz1	-----vfvdIDeiIqRLLaEiknqpKlqRyMvvKtnEilsICsiAREIFLaEP-

consensus PP1
consensus PPZ

vdld iidrllevrg rpgk v l e eirylc kareifi qp
id i rlld gy k tk v lkn ei ic areifl qp

10.....20.....30.....40.....50.....60
2YaLi_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
2Mgui_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
2DEHA_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
2Mfar_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
2Ct_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
2Cgla_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEsNYLFLGDYVDRGKQSLETICLLLA
2Ca_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
2Cdub_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
2Klac_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEsNYLFLGDYVDRGKQSLETICLLLA
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2Ag_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEsNYLFLGDYVDRGKQSLETICLLLA
2Ecym_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEsNYLFLGDYVDRGKQSLETICLLLA
2Tbla_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEsNYLFLGDYVDRGKQSLETICLLLA
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1Tmel_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
1Bcin_PP1-A	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
1Nc_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
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1Bbas_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
1Anam_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
1Npar_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
1Bory_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
1Uree_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
1Tver_PP1	-ILLELEAPIK-----YYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
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3Sp_PP1-1	-ILLELEAPLKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLevICLLLA
3Sp_PP1-2	-ILLELEAPLKICGDIHGQYsDLLRLFEYGGYPPDANYLFLGDYVDRGKQSLevICLLfA
3Sj_PP1	-ILLELEAPLKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
3Sj_Sds21	-ILLELEAPLKICGDIHGQYhDLLRLFEYGGFPDANYLFLGDYVDRGKQSLETICLLfA
3Scot_PP1	-ILLELEAPLKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLevICLLLA
3Scot_Sds21	-ILLELEAPLKICGDIHGQYsDLLRLFEYGGFPDANYLFLGDYVDRGKQSLevICLLfA
3Scry_PP1	-ILLELEAPLKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLevICLLLA
3Scry_Sds21	-ILLELEAPLKvCGDIHGQYsDLLRLFEYGGFPDNYLFLGDYVDRGKQSLevICLLfA
3Plac_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
3Pjir_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
3Nirr_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4GALMADRAFT_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4PILCRDRAFT_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Shir_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Sver_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Pgig_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Bbot_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Cvis_PP1-A	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Cvis_PP1-B	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLfA
4Cgat_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Cneo_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Tmes_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Umay_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
4Phub_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
5Wich_Glc7	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
5Rgra_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
5Pgra_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
6Rdel_PP1	-ILLDLEAPIKICGDIHGQYYDLLRLFEYGGFPPEsNYLFLMGDYVDRGKQSLETICLLLA
6Ccor_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
6Crev_PP1	-vILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
6Spun_PP1	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
6Gpro_PP1-A	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
6Gpro_PP1-B	-vLLDLEAPIKICGDIHGQYYDLLRLFEYGGFPPEsNYLFLGDYVDRGKQSLETIsLLLA
6AMAG_PP1-A	-ILLELEAPIKICGDIHGQYYDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA
6Rallo_PP1	-tLLELDAPKICGDIHGQYFDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLA

10.....20.....30.....40.....50.....60
2YALI_Ppz1	-tLLELlpPVKIVGDVHGQFgDLIRFdmCGFPpaaNYLFLGDYVDRGKQSLETILLLLC
2Mgui_Ppz1	-sLLELspPVKVVDVHGQYgDLIRVftkCGFPPltNYLFLGDYVDRGKQSLETILLLLC
2DEHA_Ppz1	-sLLELspPVKVVDVHGQYgDLIRIftkCGFPpqtNYLFLGDYVDRGKQSLETILLLLC
2Mfar_Ppz	-sLLELspPVKVVDVHGQYgDLIRVftkCGFPpqtNYLFLGDYVDRGKQSLETILLLLC
2Ct_Ppz1	-sLLELspPVKVVDVHGQYlDLIRIFskCGFPpktNYLFLGDYVDRGKQSLETILLLLC
2Cgla_Ppz1	-aLLELsaPVKIVGDIHGQFgDLRLRfktCGFPpssNFLFLGDYVDRGKQSLETILLLLC
2Cgla_Ppz2	-aLLELspsVKIVGDVHGQYgDLRLRfktCGFPpmaNYLFLGDYVDRGKQSLETILLLLC
2Ca_Ppz1	-sLLELapPVKVVDVHGQYhDLIRIFskCGFPpktNYLFLGDYVDRGKQSLETILLLLC
2Cdub_Ppz	-sLLELapPVKVVDVHGQYhDLIRIFskCGFPpktNYLFLGDYVDRGKQSLETILLLLC
2Klac_PpzA	-sLLELspPVKIVGDVHGQYadLLRLRfktCGFPpsaNYLFLGDYVDRGKQSLETILLLLC
2Klac_PpzB	-sLLELspPVKIVGDVHGQYadLLRLRfktCGFPpsaNYLFLGDYVDRGKQSLETILLLLC
2Lther_Ppz1	-sLLELspPVKIVGDVHGQYadLLRLRfktCGFPpsaNYLFLGDYVDRGKQSLETILLLLC
2Ag_Ppz	-sLLELspPVKIVGDVHGQYadLLRLRfktCGFPpssNYLFLGDYVDRGKQSLETILLLLC
2Ecym_Ppz	-sLLELspPVKIVGDVHGQYadLLRLRfktCGFPpssNYLFLGDYVDRGKQSLETILLLLC
2Tbla_PpzA	-sLLELssPVKIVGDVHGQYgDLRLRfktCGFPpaaNYLFLGDYVDRGKQSLETILLLLfC
2Tdel_PpzA	-sLLELspPVKIVGDVHGQYadLLRLRfktCGFPpsaNFLFLGDYVDRGKQSLETILLLLC
2Sc_PPZ1	-sLLELspPVKIVGDVHGQYgDLRLRfktCGFPpssNYLFLGDYVDRGKQSLETILLLLfC
2Sc_PPZ2	-aLLELspsVKIVGDVHGQYadLLRLRfktCGFPpmaNYLFLGDYVDRGKQSLETILLLLC
1Tmel_Ppz1	-aLVELspPVKIVGDVHGQYtDLIRMFemCGFPpnaNYLFLGDYVDRGKQSLETILLLLC
1Bcin_Ppz	-pLLELeaPVKIVGDIHGQYsDLIRMFemCGFPpssNFLFLGDYVDRGKQSLETILLLLC
1Nc_PP-Z	-aLLELdaPVKIVGDVHGQYtDLIRMFemCGFPpnsNYLFLGDYVDRGKQSLETILLLLMC
1Mthe_Ppz	-aLLELdaPVKIVGDVHGQYtDLIRMFemCGFPpksNYLFLGDYVDRGKQSLETILLLLC
1Bbas_Ppz	-aLLELdaPVKVVDVHGQYtDLIRMFemCGFPpmaNYLFLGDYVDRGKQSLETILLLLC
1Anam_Ppz	-aLLELapaVKIVGDVHGQYtDLIRMFemCGFPpnsNYLFLGDYVDRGKQSLETILLLLC
1Npar_Ppz1	-aLLELspPVKIVGDVHGQYtDLIRMFemCGFPpssNYLFLGDYVDRGKQSLETILLLLC
1Bory_Ppz1	-aLLELaaPVKIVGDIHGQYtDLIRMFemCGFPpnsNYLFLGDYVDRGKQSLETILLLLC
1Uree_Ppz	-aLVELaaPVKIVGDVHGQYtDLIRMFemCGFPpasNYLFLGDYVDRGKQSLETILLLLC
1Tver_Ppz	-aLLELsaPVKIVGDVHGQYtDLIRLFemCGFPpnsNYLFLGDYVDRGKQSLETILLLLC
1Anid_Ppz1	-aLLELsaPVKIVGDVHGQYtDLIRLFemCGFPpvsNYLFLGDYVDRGKQSLETILLLLC
1Aory_Ppz1	-aLLELsaPVKIVGDVHGQYtDLIRLFemCGFPpssNYLFLGDYVDRGKQSLETILLLLC
1Af_PPZ	-aLLELsaPVKIVGDVHGQYtDLIRLFemCGFPpasNYLFLGDYVDRGKQSLETILLLLC
3Sp_PPZ	-tLLELtpPVKIVGDVHGQYsDLIRLFemCGFPpssNYLFLGDYVDRGKQSLETILLLLf1
3Sj_Pzh1	-tLLELmpPVKIVGDVHGQYsDLIRLFemCGFPpssNYLFLGDYVDRGKQSLETILLLLl1
3Soct_Ppz	-tfLELmpPVKIVGDVHGQYsDLIRLFemCGFPpssNYLFLGDYVDRGKQSLETILLLLf1
3Scry_Ppz	-tfLELmpPVKIVGDVHGQYsDLIRLFemCGFPpssNYLFLGDYVDRGKQSLETILLLLf1
3Plac_Ppz	-aLLELsaPVKIVGDIHGQFtDLIRLFemCGFPpsaNYLFLGDYVDRGKQSLETILLLLm1
3Pjir_PPZ-A	-aLLELsaPVKIVGDIHGQFtDLIRLFemCGFPpsaNYLFLGDYVDRGKQSLETILLLLm1
3Nirr_PP-Z	-aLLELapPlKIVGDVHGQYsDLIRLFemCGYPPsaNYLFLGDYVDRGKQSLETILLLLC
4GALMADRAFT_Ppz1	-tLVELspPVKIVGDVHGQYsDLIRLFemCGFPpaaNYLFLGDYVDRGKQSLETILLLLC
4PILCRDRAFT_Ppz1	-tLVELspPVKIVGDVHGQYsDLIRLFemCGFPpaaNYLFLGDYVDRGKQSLETILLLLC
4Shir_Ppz	-tLIELspPVKIVGDVHGQYsDLIRLFemCGFPpaaNYLFLGDYVDRGKQSLETILLLLC
4Sver_PPZ	-tLIELspPVKIVGDVHGQYsDLIRLFemCGFPpsaNYLFLGDYVDRGKQSLETILLLLC
4Pgig_PPZ	-tLIELspPVKIVGDVHGQYsDLIRLFemCGFPpaaNYLFLGDYVDRGKQSLETILLLLC
4Bbot_PPZ	-tLIELspPVKIVGDVHGQYsDLIRLFemCGFPpssNYLFLGDYVDRGKQSLETILLLLC
4Cvis_PPZ	-tLIELspPVKIVGDVHGQYadLLIRLFemCGFPpaaNYLFLGDYVDRGKQSLETILLLLC
4Cgat_PPZ	-tLIELspPVKIVGDVHGQYadLLIRMFemCGFPpaaNYLFLGDYVDRGKQSLETILLLLC
4Cneo_PPZ	-tLIELspPVKIVGDVHGQYadLLIRMFemCGFPpaaNYLFLGDYVDRGKQSLETILLLLC
4Tmes_PPZ	-tLIELspPVKIVGDVHGQYadLLIRMFemCGFPpqaNYLFLGDYVDRGKQSLETILLLLC
4Umay_PPZ	-tLIELspPVKIVGDtHGQYhDLRLRFemCGFPpsaNYLFLGDYVDRGKQSLETILLLLC
4Phub_PPZ	-tLIELspPVKIVGDtHGQYhDLRLRFemCGFPpsaNYLFLGDYVDRGKQSLETILLLLC
5Wich_PP-Z	-tLIELnpPVKIVGDVHGQYsDLIRLFdmsGFPPqsNYLFLGDYVDRGKQSLETILLLLC
5Rgra_PPZ1	-tLVELspPVKIVGDVHGQYsDLIRLFemCGFPpnaNYLFLGDYVDRGKQSLETILLLLC
5Pgra_PPZ	-tLIELspPVKIVGDVHGQYsDLIRLFemCGFPpmaNYLFLGDYVDRGKQSLETILLLLC
6Rdel_PPZ-A	-sLLELspPVKVVDtHGQYtDLIRLFemgGFPPtsNYLFLGDYVDRGKQSLETILLLLfC
6Rdel_PPZ-B	-----gYPPdsNYLFLGDYVDRGKQSLETILLLLfC
Rdel_PPZ-C	-vdLy-----Wnfhl1LFemgGFPPssNYLFLGDYVDRGKQSLETILLLLfC
6Rdel_PPZ-D	ksLLELsaPVKIVGDtHGQYtDLRLRFdmGFPpssNYLFLGDYVDRGKQSLETfLLLLC
6Rdel_PPZ-E	-aLLQLnpGVKVaGDIHGQFfDLIRLFqmCGYPPstNYLFLGDYVDRGmySLETILLLLC
6Rdel_PPZ-F	-----mCGYPPstNYLFLGDYVDRGmySLETILLLLC
6Rdel_PPZ-G	-sLLELspPVKVVDtHGQYtDLIRLFemgGFPPtsNYLFLGDYVDRGKQSLETILLLLfC
6Ccor_PPZ	-tLIELsaPVKIVGDVHGQYtDLIRLFemCGYPPnaNYLFLGDYVDRGRQSLETILLLLC
6Crev_PPZ	-tLLQLaaPVKIItGDIHGQYtDLRLRFdkCGYPPhcNYLFLGDYVDRGKQSLETMLLLMC
6Spun_PPZ	-iLLELlpPVnIVGapcqvfifta-ssttfCeYstfaDiL-----
6Gpro_PPZ	lleLNphpsltIcGDIHGQFfDLRLRfdlmGYPPttNYLFLGDYVDRGKQSLETILLLLfC
6AMAG_PPZ-A	-aLIELlpPVKIVGDtHGQYsDLIRLFamsGFPPqaNYLFLGDYVDRGKQSLETILLLLC
6AMAG_PPZ-B	-----HsrFl--ayattkrstsGqaNYLFLGDYVDRGKQSLETILLLLC
6Rallo_Ppz1	-sLLQIepPVKIVGDIHGQYlDLInIFdqCGhPsvqpYFLGDYVDRGKQSLETMIllLC

Consensus PP1
consensus Ppz

iLLeLeAPikicgdiHgqYyDLLRLFYEGGFPeaNYLFLGDYVDRGKQSLETIcLLlA
llel pvkivgdvhgqy dlirllf cgfpp nyLflgdyvdrGKqsletillllc

10.....20.....30.....40.....50.....60
2YaLi_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Mgui_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2DEHA_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Mfar_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Ct_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Cgla_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Ca_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Cdub_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Klac_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Lther_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Ag_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Ecym_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Tbla_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Tdel_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
2Sc_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Tmel_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Bcin_PP1-A	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Nc_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Mthe_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Bbas_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Anam_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Npar_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Bory_Glc7	YKIKYPENFFvLRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Uree_PP1	YKIKYPENFFvLRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Tver_PP1	YKIKYPENFFvLRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Anid_Glc7	YKIKYPENFFvLRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Aory_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
1Af_PP1	YKIKYPENFFvLRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
3Sp_PP1-1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
3Sp_PP1-2	YKIKYPENFFILRGNHEfASIN---RIYGFYDEC-----KRRYsIKLWKTf
3Sj_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
3Sj_Sds21	YKIKYPENFFILRGNHEsAaIN---RIYGFYDEC-----KRRYsIKLWKqF
3Scot_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
3Scot_Sds21	FKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWkvF
3Scry_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
3Scry_Sds21	FKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWkiF
3Plac_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
3Pjir_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
3Nirr_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDECiip-gfldtyvagKRRYNIKLWKTf
4GALMADRAFT_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4PILCRDRAFT_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Shir_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Sver_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Pgig_PP1	YKIKYPENFFvLRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Bbot_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Cvis_PP1-A	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Cvis_PP1-B	YKIKYPENFFMLRGNHEaASIN---RIYGFYDEC-----KRRYNIKLWkiF
4Cgat_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Cneo_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Tmes_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Umay_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
4Phub_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
5Wich_Glc7	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
5Rgra_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
5Pgra_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
6Rdel_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
6Ccor_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWkiF
6Crev_PP1	YKIKYPENFFvLRGNHEsAcIN---RIYGFYDEC-----KRRYNIKLWKTf
6Spun_PP1	YKIKYPENFFvLRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
6Gpro_PP1-A	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf
6Gpro_PP1-B	YKIKYPENFFILRGNHEsASIN---RIYGFYDEC-----KRRYsIsLWKTf
6AMAG_PP1-A	YKIKYPENFFILRGNHECASIN---RIYGFYDECaftvgllrlrrierKRRYNIKLWKTf
6Rallo_PP1	YKIKYPENFFILRGNHECASIN---RIYGFYDEC-----KRRYNIKLWKTf

10.....20.....30.....40.....50.....60
2YALI_Ppz1	YKIKYPENFFILRGNHECAkVT---RVYGFYDEC-----KRRcNIKtWKtF
2Mgui_Ppz1	YKIKYPENFFLLRGNHEsANVT---RVYGFYDEC-----KRRcsIKiWklF
2DEHA_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKlF
2Mfar_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKlF
2Ct_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKlF
2Cgla_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWkyF
2Cgla_Ppz2	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKtF
2Ca_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKlF
2Cdub_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKlF
2Klac_PpzA	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKtF
2Klac_PpzB	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKtF
2Lther_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKiF
2Ag_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWkl1
2Ecym_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKvF
2Tbla_PpzA	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKvF
2Tdel_PPzA	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKiF
2Sc_PPZ1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
2Sc_PPZ2	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
1Tmel_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRctIKiWktF
1Bcin_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRaNVKvWktF
1Nc_PP-Z	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNVKiWktF
1Mthe_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNVKiWktF
1Bbas_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNVKiWktF
1Anam_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKvWksF
1Npar_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNVKvWkaF
1Bory_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKvWkaF
1Uree_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
1Tver_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
1Anid_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
1Aory_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
1Af_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
3Sp_PPZ	YKIKYPENFFLLRGNHECANiT---RVYGFYDEC-----KRRcNIKiWktF
3Sj_Pzh1	YKIKYPENFFLLRGNHECANiT---RVYGFYDEC-----KRRcNIKiWktF
3Soct_Ppz	YKIKYPENFFLLRGNHECANiT---RVYGFYDEC-----KRRcNIKiWktF
3Scry_Ppz	YKIKYPENFFLLRGNHECANiT---RVYGFYDEC-----KRRcNIKiWktF
3Plac_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRtNIKvWktF
3Pjir_Ppz-A	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRtNIKvWktF
3Nirr_PP-Z	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRtsIKtWkaF
4GALMADRAFT_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKtF
4PILCRDRAFT_Ppz1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKtF
4Shir_Ppz	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKtF
4Sver_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcsIKiWktF
4Pgig_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKtWKtF
4Bbot_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
4Cvis_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRasLKvWktF
4Cgat_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRtNIKiWktF
4Cneo_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRtNIKiWktF
4Tmes_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRtNIKtWKtF
4Umay_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRvNIKiWktF
4Phub_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRvNIKiWktF
5Wich_PP-Z	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRsNVKiWqF
5Rgra_PPZ1	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKvWktF
5Pgra_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRcNIKiWktF
6Rdel_PPZ-A	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRlsaKmWrtF
6Rdel_PPZ-B	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRtNtKvWktF
Rdel_PPZ-C	YKIKYPENFFLLRGNHECANVTrgnytVYGFYDEC-----KRRlsaKmWrtF
6Rdel_PPZ-D	YKIKYPENFFILRGNHEsANVT---RVYGFYDEC-----KRRlNpKmWkiF
6Rdel_PPZ-E	FKIKYPENFFLLRGNHEssDVT---RVYGFYDEC-----KRRlNMKmWklF
6Rdel_PPZ-F	FKIKYPkNFFLLRGNHEsADVT---RVYGFYDEC-----KRRtDVRvWkiF
6Rdel_PPZ-G	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRlsaKmWrtF
6Ccor_PPZ	YKIKYPENFFLLRGNHECANVT---RVYGFYDEC-----KRRasVktWktF
6Crev_PPZ	FKIKYPDNFFLLRGNHECAsvT---RVYGFYDEC-----KRRcsVKvWkaF
6Spun_PPZ	-----P-----ariiy-----s-----wRRcNLKvWkvF
6Gpro_PPZ	YKIKYPENFFILRGNHEsAsVn---RVYGFYDEC-----KRRcNVKvWkaF
6AMAG_PPZ-A	YKIKFPgNFFLLRGNHECAgVn---RVYGFYDEC-----KRRatIKiWktF
6AMAG_PPZ-B	YKIKFPgNFFLLRGNHECAgVn---RVYGFYDEC-----KRRatIKiWktF
6Rallo_Ppz1	YKIKYPNtFhILRGNHECAsin---RVYGFYDEC-----KRRvNIKcWksF
consensus PP1	yKIKyPENFFiLRGNHEcAsiN RIYGFYDEC KRRyniklWktF

10.....20.....30.....40.....50.....60	
2YaLi_Glc7	TDCFNCLPIAAIIDEKIFaMHGGLSPDLNTMEQIRRVMRPTD-----	IPDvGLL
2Mgui_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2DEHA_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2Mfar_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2Ct_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2Cgla_Glc7	TDCFNCLPIAAIIDEKIFcMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2Ca_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2Cdub_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2Klac_PP1	TDCFNCLPIAAIvDEKIFcMHGGLSPDLNTMEQIRRVMRPTD-----	IPDvGLL
2Lther_Glc7	TDCFNCLPIAAIIDEKIFcMHGGLSPDLNTMEQIRRVMRPTD-----	IPDvGLL
2Ag_PP1	TDCFNCLPIAAIIDEKIFcMHGGLSPDLNTMEQIRRVMRPTD-----	IPDvGLL
2Ecym_Glc7	TDCFNCLPIAAIIDEKIFcMHGGLSPDLNTMEQIRRVMRPTD-----	IPDvGLL
2Tbla_PP1	TDCFNCLPIAAIIDEKIFcMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2Tdel_PP1	TDCFNCLPIAAIIDEKIFcMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
2Sc_GLC7	TDCFNCLPIAAIIDEKIFcMHGGLSPDLNSMEQIRRVMRPTD-----	IPDvGLL
1Tmel_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Bcin_PP1-A	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Nc_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Mthe_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Bbas_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Anam_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Npar_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Bory_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Uree_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Tver_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTDldylllsfmhg	IPDcGLL
1Anid_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
1Aory_Glc7	iDCFNCLPIAAIvEDKIFcMHGGLSPDLNSMEQIRRIrMRPTD-----	IPDcGLL
1Af_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	IPDcGLL
3Sp_PP1-1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMDQIqRiMRPTD-----	VPDtGLL
3Sp_PP1-2	TDCFNCLPIAAAvIDEKIFcMHGGLSPDLNSLDQIqRiIRPTD-----	IPDtGLL
3Sj_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMDQIqRiMRPTD-----	VPDtGLL
3Sj_Sds21	TDCFNCLPIvAvIDEKIfcMHGGLSPDLrSfdQIqqiIRPTD-----	VPDsGLM
3Scot_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMDQIqRiMRPTD-----	VPDtGLL
3Scot_Sds21	TDCFNCLPIAAIvDEKIFcMHGGLSPDLNTMEQIqRiVRPTD-----	IPDtGLL
3Scry_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMDQIqRiMRPTD-----	VPDtGLL
3Scry_Sds21	TDCFNCLPIAAIvDEKIFcMHGGLSPDLNaMEQIqRiIRPTD-----	IPDtGLL
3Plac_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	VPDtGLL
3Pjir_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLtSMEQIRRVMRPTD-----	VPDtGLL
3Nirr_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLNSMEQIRRVMRPTD-----	VPDtGLL
4GALMADRAFT_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4PILCRDRAFT_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Shir_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Sver_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Pgig_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Bbot_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Cvis_PP1-A	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Cvis_PP1-B	TDCFNCLPIAAALIDDKIFcMHGGLSPDLQSMQvRRVMRPTD-----	LPDeGLL
4Cgat_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Cneo_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Tmes_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQTIMEQIRRVMRPTD-----	VPDtGLL
4Umay_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
4Phub_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
5Wich_Glc7	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
5Rgra_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
5Pgra_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
6Rdel_PP1	TDCFNCLPIAAALvDEKIFcMHGGLSPDLQSFQIRRVMRPTD-----	VPDtGLL
6Ccor_PP1	TDCFNCLPIAAIIDEKIFcMHGGLSPDLtDQIRRIrMRPTD-----	VPDmGLL
6Crev_PP1	TDCFNCLPIAAIIDEKIFsMHGGLSPDLiSMDQIKRiMRPTD-----	VPDtGLL
6Spun_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
6Gpro_PP1-A	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
6Gpro_PP1-B	TDCFNCLPIAAALIEDRIllMHGGLSPDLQnLDQIRRIrMRPTE-----	VPDaGLL
6AMAG_PP1-A	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL
6Rallo_PP1	TDCFNCLPIAAIIDEKIFtMHGGLSPDLQSMQIRRVMRPTD-----	VPDtGLL

10.....20.....30.....40.....50.....60
2YALI_Ppz1	VDtFNtLPIAaVVAgKIFCVHGGLSPsLssMsEIRsIvRPTD-----VPDYGLI
2Mgui_Ppz1	IDtFNtLPIAaIVAgKIFCVHGGLSPvLnsMDEIRtIaRPTD-----VPDYGLL
2DEHA_Ppz1	IDtFNtLPIAaIVAgKIFCVHGGLSPvLnsMEEIRnIaRPTD-----VPDFGLL
2Mfar_Ppz	IDtFNtLPIAaIVARKIFCVHGGLSPvLnsMDEIRnIaRPTD-----VPDFGLL
2Ct_Ppz1	IDtFNtLPIAaIVAgKIFCVHGGLSPvLnsMDEIRnIaRPTD-----VPDFGLL
2Cgla_Ppz1	IDtFNtLPLtaIVAgKIFCVHGGLSPvLntMDEIRnMsRPTD-----VPDFGLI
2Cgla_Ppz2	IDtFNtLPLAaIVtgKIFCVHGGLSPvLnsMDEIRhVsRPTD-----VPDFGLI
2Ca_Ppz1	IDtFNtLPIAaIVAgKIFCVHGGLSPvLnsMDEIRnIaRPTD-----VPDFGLL
2Cdub_Ppz	IDtFNtLPIAaIVAgKIFCVHGGLSPvLnsMDEIRnIaRPTD-----VPDFGLL
2Klac_PpzA	IDtFNALPLAaIVAgKIFCVHGGLSPvLnsMDEIRhVsRPTD-----VPDFGLI
2Klac_PpzB	IDtFNALPLAaIVAgKIFCVHGGLSPvLnsMDEIRhVsRPTD-----VPDFGLI
2Lther_Ppz1	IDtFNtLPLAaIVAgKIFCVHGGLSPvLnsMDEIRhVsRPTD-----VPDFGLI
2Ag_Ppz	IDtFNtLPLAaIVAgKIFCVHGGLSPvLnsMDEIRhVsRPTD-----VPDFGLI
2Ecym_Ppz	IDtFNtLPLAaIVAgKIFCVHGGLSPvLnsMDEIRhVsRPTD-----VPDFGLI
2Tbla_PpzA	IDtFNtLPLAaIVAgKIFCVHGGLSPiLnsMDEIRhVsRPTD-----VPDFGLI
2Tdel_PpzA	VDtFNtLPLAaIVAgKfFCVHGGLSPvLnsMDEIRhVsRPTD-----VPDFGLI
2Sc_PPZ1	IDtFNtLPLAaIVAgKIFCVHGGLSPvLnsMDEIRhVvRPTD-----VPDFGLI
2Sc_PPZ2	VDtFNtLPLAaIVtgKIFCVHGGLSPvLnsMDEIRhVsRPTD-----VPDFGLI
1Tmel_Ppz1	IDtFNcLPIAsIVAgKIFCVHGGLSPsLshMDDIRqIaRPTD-----VPDYGLL
1Bcin_Ppz	VDvFNcLPIAaIVAgKIFCVHGGLSPaLshMDDIRnIaRPTD-----VPDYGLL
1Nc_PP-Z	VDtFNcLPIAaIVAgKIFCVHGGLSPaLghMDDIRnIaRPTD-----VPDYGLL
1Mthe_Ppz	IDtFNcLPIAaIVAAKIFCVHGGLSPaLshMDDIRnIaRPTD-----VPDYGLL
1Bbas_Ppz	IDcFNtLPIAaIVAgKIFCVHGGLSPaLshMDDIRnIaRPTD-----VPDYGLL
1Anam_Ppz	VDtFNcLPIAsVVAaKIFCVHGGLSPsLshMDDIRnIaRPTD-----VPDYGLL
1Npar_Ppz1	VDtFNtLPIAaIVAgKIFCVHGGLSPsLshMDDIRqIaRPTD-----VPDYGLL
1Bory_Ppz1	VDtFNtLPIAaIVAgKIFCVHGGLSPsLshMDDIRqIaRPTD-----VPDYGLL
1Uree_Ppz	VDtFNcLPIAsIVAgKIFCVHGGLSPsLshMDDIRgIaRPTD-----VPDYGLL
1Tver_Ppz	VDtFNcLPIAaIVAgKIFCVHGGLSPsLshMDDIRgIaRPTD-----VPDYGLL
1Anid_Ppz1	VDtFNcLPIAaIVAgKIFCVHGGLSPsLshMDDIRnIaRPTD-----VPDYGLL
1Aory_Ppz1	IDtFNcLPIAsIVAgKIFCVHGGLSPsLshMDDIRgIaRPTD-----VPDYGLL
1Af_PPZ	IDtFNcLPIAaIVAgKIFCVHGGLSPsLshMDDIRgIaRPTD-----VPDYGLL
3Sp_PPZ	INTFNcLPIAsVVAgKIFCVHGGLSPsLshMDDIREIpRPTD-----VPDYGLL
3Sj_Pzh1	IDtFNcLPIAsVVAgKIFCVHGGLSPcLnsMNDIREIvRPTD-----VPDcGLL
3Soc_Ppz	INTFNcLPIAsVVAgKIFCVHGGLSPaLssMDDIKeItRPTD-----VPDYGLL
3Scry_Ppz	INTFNcLPIAsVVAgKIFCVHGGLSPaLssMDDIKeItRPTD-----VPDYGLL
3Plac_Ppz	IDaFNtLPIAaVVAaKIFCVHGGLSPsLahMDEIRaItRPTD-----VPDYGLL
3Pjir_Ppz-A	IDaFNtLPIAaVVAaKIFCVHGGLSPsLahMDEIRaItRPTD-----VPDYGLL
3Nirr_PP-Z	IDtFNcLPIAsIVANaKIFCVHGGLSPsLhaMsEIHtInRPTD-----VPDYGLL
4GALMADRAFT_Ppz1	IDvFNcLPIAaIVAsKIFCVHGGLSPsLhtMEDIKrIqRPTD-----VPDYGLL
4PILCDRAFT_Ppz1	IDvFNcLPIAaIVAsKIFCVHGGLSPsLhsMDDIKrIqRPTD-----VPDYGLL
4Shir_Ppz	IDvFNcLPIAaIVAsKIFCVHGGLSPsLqsMDDIKaLqRPTD-----VPDYGLL
4Sver_PPZ	IDvFNcLPIAsIVAsKIFCVHGGLSPnLqsMEDIKrIaRPTD-----VPDYGLL
4Pgig_PPZ	IDvFNcLPIAaIVAsKIFCVHGGLSPsLhhMDDIKrIqRPTD-----VPDYGLL
4Bbot_PPZ	IDvFNcLPIAaVVAaKIFCVHGGLSPsMhsMEDIKrInRPTD-----VPDFGLL
4Cvis_PPZ	IDvFNALPIAsIVAsKIFCVHGGLSPsLnnMDDIRrIaRPTD-----VPDYGLL
4Cgat_PPZ	IDvFNtLPIAsIVAsKIFCVHGGLSPsLksMDDIRrIqRPTD-----VPDYGLL
4Cneo_PPZ	IDvFNtLPIAsIVAsKIFCVHGGLSPsLksMDDIRrIqRPTD-----VPDYGLL
4Tmes_PPZ	IDvFNtLPIAsIVAsKIFCVHGGLSPsLksMDDIRrIqRPTD-----VPDFGLL
4Umay_PPZ	IDvFNtLPIAaVVAaKIFCVHGGLSPsLsnMDDIRrIeRPTD-----VPDYGLL
4Phub_PPZ	IDvFNtLPIAaVVAaKIFCVHGGLSPsLsnMDDIRrIeRPTD-----VPDYGLL
5Wich_PP-Z	VDvFNsfPIAaVVAaKIFCVHGGLSPnLttMDDIRrIqRPLD-----VPDYGLL
5Rgra_PPZ1	IDvFNcLPIAaVVAaKIFCVHGGLSPsLssMDDIRrIsRPTD-----VPDYGLL
5Pgra_PPZ	IDvFNcLPIsaVVAaKIFCVHGGLSPsLstMDDIRrIqRPTD-----VPDFGLL
6Rdel_PPZ-A	VDvFNtLPIAaLVAgKIFCVHGGLSPsLhsMDEIRnIqRPTD-----VPDYGLL
6Rdel_PPZ-B	IDaFNtLPIAaLVAsKIFCVHGGLSPsLhsMDDvRnImRPTD-----VPEYGLL
Rdel_PPZ-C	VDvFNtLPIAaLVAgKIFCVHGGLSPsLhsMDEIRnIqRPTD-----VPDYGLL
6Rdel_PPZ-D	VDvFNtLPIAaLVAgKIFCVHGGLSPsLssMDDIRnIqRPTD-----VPDYGLL
6Rdel_PPZ-E	cDvFNtMPIAaIiGnRIFCVHGGLSPfMksMDEInaLpRPTe-----VPEYGLL
6Rdel_PPZ-F	cDvFNAMPIAaIVGgKIFCVHGGLSPwMksMDqIRqLpRPTe-----VPDqGLL
6Rdel_PPZ-G	VDvFNtLPIAaLVAgKIFCVHGGLSPsLhsMDEIRnIqRPTD-----VPDYGLL
6Ccor_PPZ	VsvFNcLPVaaVVAaKIFCVHGGLSPsLhdMDDIRqIeRPSD-----VPDYGLL
6Crev_PPZ	VNtFNtLPVaaVVAaKIFCVHGGLSPdLlnMEqIRqLpRPcD-----VPDhGIL
6Spun_PPZ	tDvFNcLPIAaLVAgKIFCVHGGLSPsLhsMDDIRaVaRPSD-----VPDFGLL
6Gpro_PPZ	tDvFNcLPVaaIVAgKIFCVHGGLSPnLntMDDIRnLgRPTD-----VPDvGIL
6AMAG_PPZ-A	IDvFDcLPIAaIVAgKIFCVHGGLSPsLdtMEEvRnLpRPTD-----VPDYGLL
6AMAG_PPZ-B	IDvFDcLPIAaIVAgKIFCVHGGLSPsLdtMEDvRnLpRPTD-----VPDYGLL
6Rallo_Ppz1	tDvFNvIPVaaIVAEKIFCVHGGLSPgLysMkqIemIkRPTD-----VPDFGLL
consensus PP1	tDCFNCLPiaAiidekIf MHGGLSPdLnsmeQirrvvmRPTd iPD GLI

consensus PPZ id Fn lPia iva kiFCVHGGLSP l Mddir i RPTd VPdyGll

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.....10.....20.....30.....40.....50.....60
2YaLi_Glc7 CDLLWSDPKDITGwnENDRGVSFTFGPDVVLRFQKHDMDLICRAHQVVEDGYEFFsKR
2Mgui_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
2DEHA_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
2Mfar_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLvCRAHQVVEDGYEFFsKR
2Ct_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
2Cgla_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVvNRLQKqDMELICRAHQVVEDGYEFFsKR
2Ca_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
2Cdub_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
2Klac_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKqDMELICRAHQVVEDGYEFFsKR
2Lther_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKqDMELICRAHQVVEDGYEFFsKR
2Ag_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKqDMELICRAHQVVEDGYEFFsKR
2Ecym_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKqDMELICRAHQVVEDGYEFFsKR
2Tbla_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVvNRLQKqDMELICRAHQVVEDGYEFFsKR
2Tdel_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVvNRLQKqDMELICRAHQVVEDGYEFFsKR
2Sc_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVvNRLQKqDMELICRAHQVVEDGYEFFsKR
1Tmel_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Bcin_PP1-A CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Nc_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Mthe_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Bbas_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Anam_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Npar_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Bory_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Uree_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Tver_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Anid_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
1Aory_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVvHrfvQKHDLICRAHQcVEDGYEFFaKR
1Af_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
3Sp_PP1-1 CDLLWSDPKDLTGwgDNDRGVSFTFGPDVVSRLhKHDMDLvCRAHQVVEDGYEFFsKR
3Sp_PP1-2 CDLLWSDPKDLTGwgDNDRGVSFTFGADVVSRFLQKHDLICRAHQVVEDGYEFFgKR
3Sj_PP1 CDLLWSDPKDLTGwgDNDRGVSFTFGPDVVSRLhKHDMDLvCRAHQVVEDGYEFFsKR
3Sj_Sds21 CDLLWSDPEgvtGWgENDRGisYvFGADVVSRFLQKHDMDLvCRAHQVVEDGYEFFcKR
3Scot_PP1 CDLLWSDPDnDLTGwgDNDRGVSFTFGPDVVSRLhKHDMDLvCRAHQVVEDGYEFFsKR
3Scot_Sds21 CDLLWSDPEKDvkgwgDNDRGVSFTFGADVVNRLQKqDMDLvCRAHQVVEDGYEFFaKR
3Scry_PP1 CDLLWSDPKDLTGwgDNDRGVSFTFGPDVVSRLhKHDMDLvCRAHQVVEDGYEFFsKR
3Scry_Sds21 CDLLWSDPEKDvTGwgDNDRGVSFTFGADVVNRLQKHDMDLICRAHQVVEDGYEFFaKR
3Plac_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
3Pjir_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
3Nirr_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLaKHDMDLICRAHQVVEDGYEFFsKR
4GALMADRAFT_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4PILCRDRAFT_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVTFLQKHDMDLICRAHQVVEDGYEFFaKR
4Shir_Glc7 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Sver_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Pgig_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Bbot_PP1 CDLLWSDPKDISGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Cvis_PP1-A CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Cvis_PP1-B CDLLWADPKDITGwSpNDRGVSFTFGADVVLKFLdKHDLqLivRAHQVVEDGYEFFaKR
4Cgat_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Cneo_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Tmes_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Umay_Glc7 CDLLWSDPKDISGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
4Phub_PP1 CDLLWSDPKDISGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
5Wich_Glc7 CDLLWSDPKDISGwSENDRGVSFTFGPDVVTFLQKHDMDLICRAHQVVEDGYEFFaKR
5Rgra_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFaKR
5Pgra_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVTFLQKHDMDLICRAHQVVEDGYEFFaKR
6Rdel_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDMDLICRAHQVVEDGYEFFsKR
6Ccor_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVTKFLKHDMDLICRAHQVVEDGYEFFaKR
6Crev_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVfKFLQKHDLDLvCRAHQVVEDGYEFFaKR
6Spun_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVTFLQKHDLDLICRAHQVVEDGYEFFaKR
6Gpro_PP1-A CDLLWSDPKDITGwSENDRGVSFTFGPDVVSRLQKHDLDLICRAHQVVEDGYEFFaKR
6Gpro_PP1-B CDLLWSDPEADTGwENDRGaSTFGPDVvARFLrKHDLDLICRAHQVVEDGYEFFaKR
6AMAG_PP1-A CDLLWSDPKDITGwSENDRGVSFTFGPDVVTFLQKHDMDLICRAHQVVEDGYEFFaKR
6Rallo_PP1 CDLLWSDPKDITGwSENDRGVSFTFGPDVVTFLQKHDMDLICRAHQVVEDGYEFFaKR

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2YALI_Ppz1	NDLLWSDPaDtqnEWEDNERGVSYcFsKvaInkFLtKfsfDLVCRAHMVEDGYEFFnDR
2Mgui_Ppz1	NDLLWSDPaDtqnEWEDNERGVSYvFsRtaInkFLqKfgfDLVCRAHMVEDGYEFFnDR
2DEHA_Ppz1	NDLLWSDPaDtmnEWEDNERGVSYvFsRvaInkFLqKfgfDLVCRAHMVEDGYEFFnDR
2Mfar_Ppz	NDLLWSDPaDtinEWEDNERGVSYvFsKvaInkFLsKfgfDLVCRAHMVEDGYEFFnDR
2Ct_Ppz1	NDLLWSDPaDtinEWEDNERGVSYvFsKvaInkFLsKfnfDLVCRAHMVEDGYEFFnDR
2Cgla_Ppz1	NDLLWSDPiDspnEWEDNDRGVSYcYnKvaInkFLnKfnfDLVCRAHMVEDGYEFFnDR
2Cgla_Ppz2	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
2Ca_Ppz1	NDLLWSDPaDtinEWEDNERGVSYvFsKvaInkFLsKfnfDLVCRAHMVEDGYEFFnDR
2Cdub_Ppz	NDLLWSDPaDtinEWEDNERGVSYvFsKvaInkFLsKfnfDLVCRAHMVEDGYEFFnDR
2Klac_PpzA	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
2Klac_PpzB	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
2Lther_Ppz1	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
2Ag_Ppz	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
2Ecym_Ppz	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
2Tbla_PpzA	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnRfgfDLVCRAHMVEDGYEFFnDR
2Tdel_PPzA	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
2Sc_PPZ1	NDLLWSDPtDspnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
2Sc_PPZ2	NDLLWSDPtDssnEWEDNERGVSYcYnKvaInkFLnKfgfDLVCRAHMVEDGYEFFnDR
1Tmel_Ppz1	sDLLWSDPaDmqtdWEENERGVSYcFgKkvIleFLaRhdfDLVCRAHMVEDGYEFFnDR
1Bcin_Ppz	NDLLWSDPaDqeadWEqSERGVSYsFgKkvIqeFLlRhdfDLVCRAHMVEDGYEFFegR
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1Mthe_Ppz	NDLLWSDPaDmdqDWEaNERGVSYcFgKkvItDFLagndfDLVCRAHMVEDGYEFFtDR
1Bbas_Ppz	NDLLWSDPaDmeqDWEaNERGVSYcFgKrvItDFLavhdfDLICRAHMVEDGYEFFnDR
1Anam_Ppz	NDLLWSDPaDmenDWEaNERGVSYcFgKkvImeFLaKhdfDLVCRAHMVEDGYEFFtDR
1Npar_Ppz1	NDLLWSDPaDmdnDWEaNERGVSYcFgKkvImeFLqRhdfDLVCRAHMVEDGYEFFnDR
1Bory_Ppz1	NDLLWSDPaDmenDWEsNERGVSYcFgKkvImeFLaRhdfDLVCRAHMVEDGYEFFtDR
1Uree_Ppz	NDLLWSDPaDmeeDWEpNERGVSYcFgKkvImdFLqRhdfDLVCRAHMVEDGYEFFnDR
1Tver_Ppz	NDLLWSDPaDmeeDWEpNERGVSYcFgKkvImeFLqRhdfDLVCRAHMVEDGYEFFnDR
1Anid_Ppz1	NDLLWSDPaDmdeDWEpNERGVSYcFnKvImnFLqRhdfDLVCRAHMVEDGYEFYqDR
1Aory_Ppz1	NDLLWSDPaDmeeDWEpNERGVSYcFgKkvImnFLqRhdfDLVCRAHMVEDGYEFYqDR
1Af_PPZ	NDLLWSDPaDmeeDWEpNERGVSYcFgKkvImnFLqRhdfDLVCRAHMVEDGYEFYqDR
3Sp_PPZ	NDLLWSDPaDtenDWEENERGVSYcFnKvIrqFLaKhdfDLICRAHMVEDGYEFFnDR
3Sj_Pzh1	NDLLWSDPaDnekDWEENERGVSYcFnKvIrqFLaKfefDLICRAHMVEDGYEFFnDR
3Sot_PPz	NDLLWSDPaDmenDWEENERGVSYcFnKvIrqFLaRhdfDLICRAHMVEDGYEFFnER
3Scry_PPz	NDLLWSDPaDlenDWEENERGVSYcFnKvIrqFLaRhdfDLICRAHMVEDGYEFFnER
3Plac_PPz	NDLLWSDPaDihndWEDsERGVSYcFsKvIhqFLaKhdfDLVCRAHMVEDGYEFFnDR
3Pjir_PPz-A	NDLLWSDPaDihndWEDsERGVSYcFsKvIhqFLaKhdfDLVCRAHMVEDGYEFFnDR
3Nirr_PP-Z	NDLLWSDPaEtkdDWEpNERGVSYcFgRnvIdsFLrRfdfDLVCRAHMVEDGYEFFnER
4GALMADRAFT_PPz1	NDLLWSDPsDtaldWEDNERGVSYcFgKaiIneFLvRydmDLICRAHMVEDGYEFWnDR
4PILCRDRAFT_PPz1	NDLLWSDPsDtaldWEDNERGVSYcFgKaiIndFLvRydmDLICRAHMVEDGYEFWnDR
4Shir_PPz	NDLLWSDPsDtavEWEDNERGVSYcFgKaiIndFLvRydmDLICRAHMVEDGYEFWnDR
4Sver_PPZ	NDLLWSDPsEtaidWEDNERGVSYcFgKsvIneFLaKwdmDLVCRAHMVEDGYEFWnDR
4Pgig_PPZ	NDLLWSDPsDtaqDWEENERGVSYcFgKsiIndFLvRydmDLICRAHMVEDGYEFWnDR
4Bbot_PPZ	NDLLWSDPsDtateWEDNERGVSYcFgKsiIneFLgRydmDLICRAHMVEDGYEFWnDR
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4Tmes_PPZ	NDLvwSDPsDttmDWEENERGVSYcYgKsvInaFLathdmDLICRAHMVEDGYEFYnDR
4Umay_PPZ	NDLLWSDPsDtaldWEDNERGVSYcFgKavIqqFLaqydfDLICRAHMVEDGYEFWnER
4Phub_PPZ	NDLLWSDPsDtaldWEDNERGVSYcFgKavIqqFLaqydfDLICRAHMVEDGYEFWnER
5Wich_PP-Z	NDLLWSDPsDtafDWEENERGVSYcFgKsvIndFLsRyefDLICRAHMVEDGYEFWnDR
5Rgra_PPZ1	NDLLWSDPsDtaldWEDNERGVSYcFgKtvIgtFLaRydfDLICRAHMVEDGYEFWcDR
5Pgra_PPZ	NDLLWSDPsDtaldWEDNERGVSYcFgKsvIaeFLaRydfDLICRAHMVEDGYEFWnER
6Rdel_PPZ-A	NDLLWSDPaDidgdWEDNERGVSYvFgKkvIneFLsKfdlDLVCRAHMVEDGYEFFgnR
6Rdel_PPZ-B	NDLvwSDPsDtavEWEDNERGVSYcFgKkvIneFLsKfdlDLVCRAHMVEDGYEFFgnR
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6Rdel_PPZ-D	NDLLWSDPaDitanWEENERGVSYvFgKkvIndFLsKfdlDLVCRAHMVEDGYEFFgDR
6Rdel_PPZ-E	NDLLWSDPsDlssDwsENDRGVSYcFgRnnvneFLqRfdlDLICRAHMVEDGYEFFsDR
6Rdel_PPZ-F	NDLLWSDPsDlssDwsENDRGVSYcFgRnnvneFLqRfdlDLICRAHMVEDGYEFFsDR
6Rdel_PPZ-G	NDLLWSDPaDidgdWEDNERGVSYvFgKkvIneFLsKfdlDLVCRAHMVEDGYEFFgnR
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6Spun_PPZ	NDLLWSDPsDlatDWEENERGVSYcFsKtivseFLsRhdlDLVCRAHMVEDGYEFFnnR
6Gpro_PPZ	NDLLWSDPsEtavEWEDsERGVSYcFgKqvqveFLqKndfDLVCRAHMVEDGYEFFgnR
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6AMAG_PPZ-B	NDLLWSDPsEtaidWEDNERGVSYcFgasvIqqFLlKhdfDLVaRAHMVEDGYEFFgDR
6Rallo_PPz1	NDLLWSDPaDpnaEWEDNERGVSYlFgKsiIdqFLqKhdlDLICRAHtVEDGYEFFnDR

consensus PP1	CDLLWsDPdkditGWseNDRGvSftFGpDvVsrFlqKhDmdLicRAHQvVEDGYeFf Kr
consensus PPZ	ndLLWsDP d dWedneRGVSy f k i fl k dLvcrAhmvVEdGYeFf dR
10.....20.....30.....40.....50.....60
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2Mgui_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPADKKpRypa--n-nvgnnrp
2DEHA_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPADKKpRypqs-n-nisnnrp
2Mfar_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPADKKpRypqa-n-nignnnrp
2Ct_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPADKKpRyapa-nvann--rp
2Cgla_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAqKslprqqagr-----
2Ca_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPADKKpRyapa-nvann--rp
2Cdub_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPADKKpRyapa-nvann--rp
2Klac_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAkKllernvvr-----
2Lther_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAqKtlprpqgk-----
2Ag_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAvKpsagrqqpk-----
2Ecym_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAvKpsagrqgpk-----
2Tbla_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAqKslprqqgk-----
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2Sc_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAqKslprqqagr-----
1Tmel_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKyvyg-gmgt--grp
1Bcin_PP1-A	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKyvtt-gglgassrp
1Nc_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKfgrr-----
1Mthe_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKfgrg-r-----
1Bbas_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKfgr-----
1Anam_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqnrfg-r-----
1Npar_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKyvsm-gs----akp
1Bory_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKyvpn-lgrpasg--
1Uree_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKyvyg-gmst--grp
1Tver_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKyvyg-gmap--nnrp
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1Aory_Glc7	kLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKkanitr-gfksdrsnp
1Af_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKyvyg-gmss--gap
3Sp_PP1-1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqRyg-y-qgssqn-wh
3Sp_PP1-2	QLVTLFSAPNYCGEFDNvGA---MMSVNEdLLCSFQILKPAEKkKqRvsqssikesks---
3Sj_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqRygh-----
3Sj_Sds21	hLVTLFSAPNYCGEFDNvGA---MMSVNDnLLCSFQILKPAEKkKqRnsqvlaheaar---
3Scot_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqRyggg-yqgmgn-wh
3Scot_Sds21	lLVTLFSAPNYCGEFDNvGA---MMSVNEdLLCSFQILKPAEKkKqRnhplagkepkp---
3Scry_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqRyggg-yqgmgn-wh
3Scry_Sds21	lLVTLFSAPNYCGEFDNvGA---MMSVNEdLLCSFQILKPAEKkKqRnhplsgkepkp---
3Plac_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKyqyg-gmgs--grp
3Pjir_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKqKylyg-gmgs--grp
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4PILCRDRAFT_Glc7	hLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKaKyp-y--ggmnmgrp
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4Pgig_PP1	hLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKpRlp-y--gsgntgrp
4Bbot_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKyp-y--ggmnmgrp
4Cvis_PP1-A	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKsKypgyggtmggnrp
4Cvis_PP1-B	QLVTLFSAPNYCGEFDNAGA---MMSVDESLLCSFQILKPAEKkKpsklttmkkkkgktrf
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4Cneo_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDDTLCSFQILKPAEKkKpKygygyggs---arp
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4Phub_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKqKya-y--gginmgrp
5Wich_Glc7	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKqKfpas---ygigrp
5Rgra_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKktfa-y--ggagqgrp
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6Rdel_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDDSLMCSFQILKPAEKkKsKytgytgsknasrgk
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6Crev_PP1	kLVTLFSAPNYCGEFDNAGA---MMSVDDTLCSFQILKPAEKkKpRggrrr-----
6Spun_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKtKyayg---gmnsgrp
6Gpro_PP1-A	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKqKyayg---gissgrp
6Gpro_PP1-B	QLVTLFSAPNYCGEFDNAGA---MMSVDESLMCSFQILKPAEKkKqKyvyggpggssgrg
6AMAG_PP1-A	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKqKhnygagnrskfa--
6Rallo_PP1	QLVTLFSAPNYCGEFDNAGA---MMSVDETLCSFQILKPAEKkKqKyayg---gmntgrp

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.....:....10.....:....20.....:....30.....:....40.....:....50.....:....60
2YALI_Ppz1      sLVTVFSAPNYCGEFDNWGA---VMSVseELLCsFELLkPLDsaaLKqeMkKg----kh
2Mgui_Ppz1      tLVTVFSAPNYCGEFDNWGA---VMSVsdELLCsFELLdPLDsvaLKqvMkKg----rq
2DEHA_Ppz1      tLVTVFSAPNYCGEFDNWGA---VMSVsdELLCsFELLdPLDsiaLKqvMkKg----ke
2Mfar_Ppz       tLVTVFSAPNYCGEFDNWGA---VMSVseELLCsFELLdPLDssaLKqvMkKg----ri
2Ct_Ppz1        tLVTVFSAPNYCGEFDNWGA---VMgVseDLLCsFELLdPLDsvaLKqvMkKg----kq
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2Ca_Ppz1        tLVTVFSAPNYCGEFDNWGA---VMgVseDLLCsFELLdPLDsaaLKqvMkKg----kq
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2Lther_Ppz1     sLVTVFSAPNYCGEFDNWGA---VMSVsegLLCsFELLdPLDsaaLKqvMkKg----rq
2Ag_Ppz         sLVTVFSAPNYCGEFDNWGA---VMSVsegLLCsFELLdPLDsaaLKqvMkKg----rq
2Ecym_Ppz       sLVTVFSAPNYCGEFDNWGA---VMSVsegLLCsFELLdPLDsaaLKqvMkKg----rq
2Tbla_PpzA      sLVTVFSAPNYCGEFDNWGA---VMSVsegLLCsFELLdPLDsaaLKqvMkKg----rq
2Tdel_PPzA      sLVTVFSAPNYCGEFDNWGA---VMSVsegLLCsFELLdPLDgaaLKqvMkKg----rq
2Sc_PPZ1        sLVTVFSAPNYCGEFDNWGA---VMSVsegLLCsFELLdPLDsaaLKqvMkKg----rq
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1Nc_PP-Z        iLVTiFSAPNYCGEFDNWGA---VMaVstELLCsFELLkPLDsaaLKthIkKg----rh
1Mthe_Ppz       vLVTVFSAPNYCGEFDNWGA---VMSVsaELLCsFELLkPLDsaLKshIkKg----rn
1Bbas_Ppz       vLVTVFSAPNYCGEFDNWGA---VMSVnaELLCsFELLkPLDssaLKshIkKg----rn
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1Aory_Ppz1      iLVTVFSAPNYCGEFDNWGA---IMSVsdELLCsFELLkPLDstaLKnhIkKg----rn
1Af_PPZ         iLVTVFSAPNYCGEFDNWGA---IMSVsgELLCsFELLkPLDstaLKnhIkKg----rk
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3Sj_Pzh1        tLcTVFSAPNYCGEFDNWGA---VMSVnpELLCsFELLkPLDqaaIRreLkKs----kl
3Soc_PPz        tLcTVFSAPNYCGEFDNWGA---VMSVnsELLCsFELIkPLDqaaIRreLkKs----kh
3Scry_PPz       tLcTVFSAPNYCGEFDNWGA---VMSVnsELLCsFELIkPLDqaaIRreLkKs----kr
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3Nirr_PP-Z      tLVTVFSAPNYCGEFDNFGA---VMSVseELLCsFELLkPLDqiaLKqeMkKr----rr
4GALMADRAFT_PPz1 tLVTVFSAPNYCGEFDNYGA---cMSVseDLLCaFELLkPLDgaaLRkeMtKa----kr
4PILCRDRAFT_PPz1 tLVTVFSAPNYCGEFDNYGA---cMSVseDLLCaFELLkPLDgpaLRkeMtKa----kr
4Shir_PPz       tLVTVFSAPNYCGEFDNYGA---cMSVseDLLCaFELLkPLDgpaLRkeMtKa----kr
4Sver_PPZ       tLVTVFSAPNYCGEFDNYGA---cMSVseDLLCaFELLkPLDpavIKkeLsKa----kr
4Pgig_PPZ       tLVTVFSAPNYCGEFDNYGA---cMSVseELLCaFELLkPLDgpaLRkeMtKa----kr
4Bbot_PPZ       tLVTVFSAPNYCGEFDNYGA---cMSVseDLLCaFELLkPLDgpaLRkeMtKa----rr
4Cvis_PPZ       tLVTVFSAPNYCGEFDNYGA---cMSVseDLLCaFELLkPLDgpaLRkeMtKa----kr
4Cgat_PPZ       tLVTVFSAPNYCGEFDNFGA---VMSVseDLLCsFELLkPLDgaaLKkeMtKs----kr
4Cneo_PPZ       tLVTVFSAPNYCGEFDNFGA---VMSVseDLLCsFELLkPLDgaaLKkeMtKs----kr
4Tmes_PPZ       tLVTVFSAPNYCGEFDNFGA---VMSVseDLLCsFELLkPLDgaaLKkeMaKn----kr
4Umay_PPZ       tLVTiFSAPNYCGEFDNFGA---VMSVseDLLCaFELLkPLDgaaLKkeMaKn----kr
4Phub_PPZ       tLVTiFSAPNYCGEFDNFGA---VMSVseDLLCaFELLkPLDgaaLKkeMhKs----rk
5Wich_PP-Z      tLVTiFSAPNYCGEFDNFGA---IMSVsqDLLCaFELLkPLDsqaLKkeMhKs----rk
5Rgra_PPZ1      aLVTiFSAPNYCGEFDNFGA---VMSVslDLLCsFELLkPLDtaqLKreLaKt----rr
5Pgra_PPZ       tLVTiFSAPNYCGgtssmon---okaryo-tICfuNgI-----
6Rdel_PPZ-A     sLVTVFSAPNYCGEFDNFGA---IMSVneELLCsFELLtPaDhplaKerLkqnkansnn-
6Rdel_PPZ-B     tLVTVFSAPNYCGEFDNFGA---IMSVneELLCsFELLtPLEhpstaklqeaqrn-rgr-
Rdel_PPZ-C      tLVTVFSAPNYCGEFDNFGA---IMSVneELLCsFELLtPaDhplaKerLkqnkinnk-
6Rdel_PPZ-D     tLVTiFSAPNYCGEFDNFaA---IMSVneELLCsFELLtPMdhpltvksr-----
6Rdel_PPZ-E     sLVTiFSAPNYCGEFDNYGA---VMTiskDLLCsFELLpPaEtvisHeknlKksssslql
6Rdel_PPZ-F     sLVTVFSAPNYCGEFDNYGA---VMTiskDLLCsFEMlpPIqavtpqqqenK-----
6Rdel_PPZ-G     sLVTVFSAPNYCGEFDNFGA---IMSVneELLCsFELLtPaDhplaKerLkqnkansnn-
6Ccor_PPZ       tLVTVFSAPNYCGEFDNYGA---VMSVneELLCsFELLkPqDlsapqrrkrns----pp
6Crev_PPZ       qLVTVFSAPNYCGEFDNsGA---VMnVneELLCsFEILkPLvenlhtcmsrveasfwsrr
6Spun_PPZ       tLVTVFSAPNYCGEFDNkGA---VMcVneDLLCsFEILqPqthpkhslkgrRr-----
6Gpro_PPZ       iLVTVFSAPNYCGEFDNnGA---VMSVneELLCsFEILtPvtvtkkHnmrrRr-----
6AMAG_PPZ-A     sLVTiFSAPNYCGEFNNlGA---VMcVneDLMCTFEILkPegsvrIvngrRrRis-----
6AMAG_PPZ-B     sLVTiFSAPNYCGEFNNlGA---VMcVneDLMCTFEILkPegsvrIvngrRrRis-----
6Rallo_PPz1     tLVTVFSAPNYCGEFENcGA---ILqVsqnLLCsFQIIknssplykissedink-----

```

Consensus PP1	qLVTlFSAPNYCGEFDNaGA	mMSVdesLlCSFQILKPAeKk	k
consensus PPZ	LvTvFSAPNYCGefdnwga	vmsv ellCsfell pld	lk m k

Boxshade Preferences ? X

General RTF/PS/PNG Text (ASCII) output Similarities Groups

Different from consensus Identical to consensus Other prefs

Foreground Background

☐ Uppercase **acgt**

☒ Lowercase

Foreground Background

☒ Uppercase **ACGT**

☐ Lowercase

Font size: 10

☒ Portrait

☐ Landscape

Similar to consensus All the same residue

Foreground Background

☒ Uppercase **ACGT**

☐ Lowercase

Foreground Background

☒ Uppercase **ACGT**

☐ Lowercase

OK Cancel

Boxshade Preferences ? X

General RTF/PS/PNG Text (ASCII) output Similarities Groups

☐ Consensus to a single sequence Threshold Fraction (0-1): 0.80

Make consensus to sequence: 1

☒ Special shading for similar residues

☒ Print sequence names

☒ Special shading for completely conserved residues

Print sequence numbers:

☐ at left end ☐ at right end

☒ Print ruler line

☐ Default numbering (start at 1)

☒ Print consensus line

Symbols for consensus: LU

Sequence characters per line: 60

Number of lines between blocks: 1

☒ Protein ☐ DNA/RNA

Seq. No.	Start number
1	1
2	1
3	1
4	1
5	1

OK Cancel