

Figure S1: Alignment of rice and Arabidopsis GH1 proteins with large gap regions removed for phylogenetic analysis.

Os10bglu34 : LTRKSFENGVFCTASSAYQYEGAVKEDGRGPTIWDKFAH-TFGK-IIDFSNADVAVDYHRYREEDIQLMADMGM : 73
 Os3bglu6 : LTRGSEFEGVFCTASSAYQYEGAVKEDGRGPTIWDKFAH-TFGK-IIDFSNADVAVDYHRYREEDIQLMADMGM : 73
 AtBGLU40 : LTRGSFEGVFCTASSAQFHEGAVKAEGRGPTIWDKFAH-TFGK-IIDFSNADVAVDYHRYREEDIQLMADMGM : 73
 Os6bglu25 : LSRADFEPGFIFCTASSAYQYEGAVNEGGRGPTIWDITLTK-RPGR-VIDFSNADVAVDYHRYKEDVLMNDIGM : 73
 AtBGLU41 : LSRANFDGPFVCTASSAYQFEGAVKEGNKGESIWDTFTKEKPGK-ILDFSNADTTVDYHRYHNDIDLMKDLRM : 74
 Os1bglu4 : T-RGDFPDGFVFCTASSAYQIEGARREGGKGDNIWDVTE-NKER-ILDGSSGEVAVDYHRYKEDIELMASGF : 72
 AtBGLU42 : LTRSNFSTFEGVFCTASSAYQIEGWNNEGKGPSIWDTKTH-IEGK-ILDGSGNDVAVDYHRYKEDVLLIQGLF : 73
 Os1bglu1 : LSRSTFEGVFCTASSAYQVEGMAKLDGRGPSIWDAIVK-TPGE-IANNATAVDVTVYHRYKEDVNLKMSGF : 73
 Os7bglu26 : LSRRAFEPGFVFCTAASAYQVEGMAKQGRGPSIWDAITE-KPGT-IPNNATAVDVTVYHRYKEDVNLKMSGF : 73
 AtBGLU43 : LNRKSFEPGFVFCTATSSAYQVEGETHQDGRGPSIWDAIVK-IPGK-IANNATAEITVDYHRYKEDVLMQNLNI : 73
 AtBGLU44 : LSRQSFEGKFVFCTATSSAYQVEGETHQDGRGPSIWDAIVK-IPGK-IANNATAEITVDYHRYKEDVLMKKLNF : 73
 Os3bglu8 : LSRAAFEPGFVFCTATSAFQVEGMAASGRGPSIWDPVHV-TPGN-IAGNAGDVTTDYHRYKEDVLLKSNF : 73
 Os3bglu7 : LSRAAFEPKFVFCTATSSAYQVEGMAASGRGPSIWDAFAH-TPGN-VAGNONGDVATDYHRYKEDVNLKSNF : 73
 Os12bglu38 : LTRTFEPAGVFCTASSAYQVEGNALYGRGPCIWDITGLM-QPGV-TPDNSTANVTVDYHRYMDDVDNMVVRGF : 73
 Os11bglu37 : FSRYSFKEKDFIFCTGSAAYQYEGAYKEGGKGPSIWDTETH-VPKG-ILNNDTGDVADSYHRYKEDVNLKDNM : 73
 Os11bglu35 : FSRYSFKEKDFIFCTGSAAYQYEGAYKEGGKGPSIWDTETH-IPGK-ILNNDTGDVADSYHRYKEDVNLKDNM : 73
 Os9bglu30 : FTRYSFKEKDFIFCTGSAAYQYEGAYKEGGKGPSVWDNETH-IPGK-ILNNDNGDVADSYHRYKEDVSLKDNM : 73
 Os9bglu29 : FNRYSFKEKDFIFCTGSAAYQYEGAAKGGGPSVWDTETH-IPGK-ILNGDTGDVADSYHRYKEDVNLKDNM : 73
 Os8bglu29 : LNRHSFEPGFVFCTGTSAYQVEGAVDK--RGQNIWDTSR-IPGK-IADGNSADIANFYHRYKEDNLITAMM : 71
 Os8bglu27 : FNRHSFEPGFVFCTGTSAYQYEGAVNEGGRGPSIWDTFAH-IPGK-IVDGSGNDVAVDYHRYKEDINVTDMN : 73
 Os4bglu10 : LSRRSFEPKFIFCTSSSSYQFEGAAKGGGPSIWDTETHQYDPK-ITDKSNGTGACSYHLYKEDVRLMKEMGM : 74
 Os4bglu11 : LSRRSFEPKFIFCTSSSSYQFEGGAVLGGRGPSIWDTETHQSPDK-ITDRSNGDVACSYYHLYKEDVRLMKEMGM : 74
 Os4bglu9 : LSRRSFEPKFIFCTSSSSYQFEGAAAGGGGPSIWDTETHQHPDK-IADKSGNDVADSYHLYKEDVRLMKEMGM : 74
 Os4bglu13 : LSRRSFEPKFIFCTASSSYQVEGAREGGGPSIWDTETHQHPDK-IADKSGNDVADSYHLYKEDVRLMKMGV : 74
 Os4bglu12 : VSRRSFEPKFIFCTASSSYQVEGAAAGGGGPSIWDTETHQHPDK-IADRSNGDVADSYHLYKEDVRLMKMGV : 74
 Os6bglu24 : -RSQFPEDEFFCTASSAYQVEGAVREGGRGPSIWDTETHNHPEK-IANGSNGDIADSYHRYKEDVGLMKGLGL : 73
 AtBGLU17 : LRSQFPEQDFRCAASSAYQVEGCAANVDGREGSIWDTETHQYPEK-ISDGSNGDVADSYFYRFKEDVAHMKELG : 74
 AtBGLU12 : LRSDFEDEDFIFCAATSAYQVEGAAHEDGRGPSIWDTSEKYPEK-IKDGSNGSIADSYHLYKEDVLLHQIGF : 74
 AtBGLU13 : LRSDFEKDFIFCAATSAYQVEGAAHEDGRGPSIWDTSEKYPEK-IKDGSNGSIADSYHLYKEDVLLHQIGF : 74
 AtBGLU14 : LRKTDFEDEDFIFCAATSAYQVEGAAQEDGRGPSIWDTSEKYPEK-IKDGSNGSIADSYHLYKEDVLLHQIGF : 74
 AtBGLU15 : LRSDFEDEDFIFCSATSAYQVEGAAHEDGRGPSIWDTSEKYPEK-IKDGSNGSIADSYHLYKEDVLLHQIGF : 74
 AtBGLU16 : V-----OVSG-----TPS-----LK-----NS-----QEDVNLHQIGF : 24
 AtBGLU18 : FSLNLFEPGFIFCTATAAFQVEGAVNEGGRGPSIWDTETKKFP-H-RCNHNADVAVDYHRYKEDIQLMKDLNT : 73
 AtBGLU19 : LSRASFEPGFIFCTATAAFQVEGAVNEGGRGPSIWDTETKKFP-H-RVKNHNADVAVDYHRYKEDIQLMKDLNT : 73
 AtBGLU20 : FTRANFEPKFIFCTATAAFQVEGAVNEGGRGPSIWDTETKKFP-H-KCNYHNADVAVDYHRYKEDIQLMKDLNT : 73
 AtBGLU21 : LSRASFEPGFIFCTATAAFQVEGAINETCRGPALWDIYCRNRP-E-RCSGNDVAVDYHRYKEDIQLMKDLNT : 73
 AtBGLU22 : LSRASFEPGFIFCTATAAFQVEGAINETCRGPALWDIYCRNRP-E-RCSGNDVAVDYHRYKEDIQLMKDLNT : 73
 AtBGLU23 : LSRASFEPGFIFCTATAAFQVEGAINETCRGPALWDIYCRNRP-E-RCNNDNGDVAVDYHRYKEDIQLMKDLNT : 73
 AtBGLU24 : LSRASFEPGFIFCTATAAFQVEGAVNETCRGPSIWDTETCKYPEK-E-KCNGNDGTQAVDYHRYKEDIQLMKDLNT : 73
 AtBGLU25 : FGRGSFEPGFIFCTATSAFQVEGAAAGGGGPSIWDTETLKQHE-SNNNLDGRIGVDFYHRYKEDVQLLKLNM : 74
 AtBGLU26 : KGRASFEPGFIFCTASSSYQVEGAVNEGGRGPSIWDTESNRPHR-ISDSSGNDVAVDYHRYKEDIKRMKDLNM : 74
 AtBGLU27 : FGRSDFEPGFIFCTASSAYQVEGARNAPRGESVWDTEVRKYPER-NCYSN-ADQAEIFYNHRYKEDIQRMKDLNM : 73
 AtBGLU28 : FDSHGFPDNFVFCTAASAFQVEGATSEGGKGPSIWDTESHTFP-E-RTRMQNADVAVDYHRYKEDIKLMKELNM : 73
 AtBGLU29 : LDRSSFEPDFVFCTATSAFQVEGATSEGGKGPSIWDTESHTFP-E-RTRMQNADVAVDYHRYKEDIKLMKELNM : 73
 AtBGLU30 : LDRHSFEPDFVFCTAASAFQVEGATSEGGKGPSIWDTESLTYP-E-RTRMQNADVAVDYHRYKEDIKLMKELNM : 73
 AtBGLU31 : LNRYSFEPHDFDFVASSAYQVEGAVEEGGRSLSIWDTETHAFP-E-RTNMDNGDVAVDYHRYKEDIKLMKELNM : 73
 AtBGLU32 : LNRYSFEPHDFDFVASSAYQVEGAVEEGGRSLSIWDTETHAFP-E-RTNMDNGDVAVDYHRYKEDIKLMKELNM : 73
 AtBGLU33 : IHKQDFEPDFIFCTSVSAYQVEGAKKSGRGLSWDTEHMFPEK-VPQNGDGEVDFYTRYKEDIKLMKELNT : 74
 AtBGLU34 : FNRGTFRNDFIFCTAASAYQIEGAAH---RALNGWDYETHRYPEK-VPDRSSGLACSYDLYKDDVKLLKRMNV : 71
 AtBGLU35 : FNRSGFEPKNETFCAATSAYQIEGAAH---RALNGWDYETHRYPEK-VPDRSSGLACSYDLYKDDVKLLKRMNV : 71
 AtBGLU36 : ISQ---KNETFCAATSAYQVEGAAH---RALNGWDYETHRYPEK-VPDRSSGLACSYDLYKDDVKLLKRMNV : 67
 AtBGLU37 : FNRQDFEPDFIFCVASSAYQIEGGRG---RGLNVWDGETHRYPEKGGADLGNDTTCESYRTYKQKOLDVMEELGV : 72
 AtBGLU38 : FNSGNFEPKFIFCVASSAYQVEGGRG---RGLNVWDGETHRYPEKGGADLGNDTTCESYRTYKQKOLDVMEELGV : 72
 AtBGLU39 : FNRKHFDDEDFIF-----EGKG---RGLNVWDGETHRYPEKGGADLGNDTTCESYRTYKQKOLDVMEELGV : 63
 Os4bglu18 : IHRSDFEASFLFCTATSSYQIEGAYLEGNKSLNWDVETHLPG---NIKDGSGNDIADYHRYREEDVLMNSLGV : 73
 Os4bglu14 : VRDSQFPEDFLFCFTSSAYQVEGAYLEGNKSLNWDVETHKQG---TIEDGSGNDIADYHRYREEDVLMNSLGV : 73
 Os4bglu16 : LRSDFEPGFIFLCAATSAYQIEGAYLDNGLNNDVETHQAG-RISDGRNGDVADYHRYREEDVLMNSLGV : 74
 AtBGLU45 : VDSFEPDFLFCFTASSAYQVEGAFITDGKSLNNDVETHKNPG-KILDKNNAIDVADYHRYREEDVLMNSLGV : 74
 AtBGLU46 : -DSFEPDFLFCFTASSAYQVEGAFITDGKSLNNDVETHNPG-KIVDGSNDIADYHRYREEDVLMNSLGV : 73
 AtBGLU47 : EETTFHFKFLFCTASSAYQIEGAYLITDGKSLNNDVETHNPG-KIVDGSNDIADYHRYREEDVLMNSLGV : 73
 Os9bglu33 : LTRHDFEPGFVFCTAGSAYQVEGAAEDGRKPSIWDTETHQG---YSPGGAIDVADYHRYREEDVLMNSLGV : 72
 Os9bglu32 : LTRHDFEPGFVFCTAGSAYQVEGAAEDGRKPSIWDTETHQG---YSPGGAIDVADYHRYREEDVLMNSLGV : 72
 Os9bglu31 : ITRADFEPFIFFCAGSSAYQVEGAFADGRKPSIWDTETHSG---YSVDGATGDVADYHRYREEDVLMNSLGV : 72
 Os1bglu2 : YTRSDFERDFVFCAATSAYQYEGAAEDGRSPSIWDTETHAGQ---KTKDKGTGDVADYHRYREEDVLMNSLGV : 73
 Os1bglu3 : YTRNDFEADVFCAATSAYQYEGAAEDGRSPSIWDTETHAG---KMKDKGTGDVADYHRYREEDVLMNSLGV : 72
 Os1bglu5 : YTRGDFEPDFVFCTASSYQVEGDFEDGRSPSIWDTETHQG---KMPGRSTADVADYHRYREEDVLMNSLGV : 72
 Os5bglu22 : FTRQDFEPGFVFCTAGSAYQVEGATDEGRSPSIWDTETHAG---KMPDKSTGDMGAGGYHRYKEDVLMNSLGV : 72
 Os5bglu23 : FTRQDFEPGFVFCTAGSAYQVEGATDEGRSPSIWDTETHSG---RMAPDSTGDMGAGGYHRYKEDVLMNSLGV : 72
 Os5bglu20 : FTRDDFEPDFEAFCAATAYQVEGAAEDGRTPSIWDTETHSG---RHPEDGTGDVADYHRYREEDVLMNSLGV : 72
 Os5bglu21 : FTRDDFEPDFEAFCAATAYQVEGAAEDGRTPSIWDTETHSG---RHPEDGTGDVADYHRYREEDVLMNSLGV : 72
 Os5bglu19 : FTRDDFEPDFEAFCAATAYQVEGAAEDGRTPSIWDTETHSG---RNPGETGDVADYHRYREEDVLMNSLGV : 72
 AtBGLU1 : YSRSDFEPGFVFCTAGSAYQVEGAVDEGRKPSIWDTETHLR---K-MDN---GDIACYHRYKEDVLMNSLGV : 69
 AtBGLU3 : -DNDFEPGFIFCSATSAYQVEGAFDEGRKPS

AtBGLU9 : FTRNSFFKDFLFGAATSAYQWEGAVAEDGRTPSVWDTFSNSY---DTG---NGDVTSIGYHKYKEDVKLMATMGL : 69
 AtBGLU10 : FTRNNFFKDFLFGAATSAYQWEGAVAEDGRTPSVWDTFSHTY---NRGNLGNCDITSIGYHKYKEDVKLMAEMGL : 72
 AtBGLU11 : YSENDFFPGFVFGSGTSAYQVEGADEGRTPSIWDVIAHAG---H-SGVAAGNVACIGYHKYKEDVKLMADMGL : 71
 Osbglu39 : -MNTSLANFLWGNVSSMOTEGAWNEGKGMSVYDIREAG-----ENISDWKVATISYHRYREDFDLQDLM : 68
 Os11bglu36 : ADFRAFEDNFFFLATARDORDGSGSQSWRGENGIDGGEILAESGESAGGDNCSHNVAWHRDAELKLAKETGT : 75

p f g a q eG d h d

80 * 100 * 120 * 140 *

Os10bglu34 : DAYRFSIAWSRIEPNGTGEVNOAGIDHYNKLINALLAKGIEPYVTLYHWDLPQALEDKYKGLDRQIINDYAVYA : 148
 Os3bglu6 : DAYRFSIAWSRIEPNGVGQVNOAGIDHYNKLIDALLAKGIQPYVTLYHWDLPQALEDKYKGLDRQIVDDFAAYA : 148
 AtBGLU40 : DAYRFSISWTRIEPNVGGHINEAGIDHYNKLINALLAKGIEPYVTLYHWDLPQALHDLRLGWINPQIINDFAAYA : 148
 Os6bglu25 : DAYRFSISWSRIEPNGTGEVNEBGLSYVNSLIDALLDKGIEPYVTLYHWDLPQALEDRYEGGWINSEIIEEDFVQYA : 148
 AtBGLU41 : DAYRFSISWSRIEPNGTGEVNPDCVKYVNSLIDALLAKGIEPYVTLYHWDLPQALEDRYEGGWSREVVDDFEHYA : 149
 Os1bglu4 : RAYRFSISWPRIEPDGLGNVNEQGVAFYNDLINFMIEKIEPYATLYHWDLPQALHDLRLGWINPQIINDFAAYA : 147
 AtBGLU42 : DAYRFSISWRIEPPDGLGEVNEEGIAFYNDLINFMIEKIEPYATLYHWDLPQALHDLRLGWINPQIINDFAAYA : 148
 Os1bglu1 : DAYRFSISWSRIEPTGTGKVNWKGVAFYNNRLINYMILKIGITPYANLYHYDLPLALEVQYGGGLNRKIVEAFADYA : 148
 Os7bglu26 : DAYRFSISWSRIEPTGTGKVNWKGVAFYNNRLINYMILKIGITPYANLYHYDLPLALEVQYGGGLNRKIVEAFADYA : 148
 AtBGLU43 : DAYRFSISWSRIEPEGSGKINSNGVAFYNNRLIDYLIKIEGIPYANLYHYDLPLALEVQYGGGLNRKIVEAFADYA : 148
 AtBGLU44 : DAYRFSISWSRIEPEGSGKINSNGVAFYNNRLIDYLIKIEGIPYANLYHYDLPLALEVQYGGGLNRKIVEAFADYA : 148
 Os3bglu8 : DAYRFSISWSRIEPEGSGKINSNGVAFYNNRLIDYLIKIEGIPYANLYHYDLPLALEVQYGGGLNRKIVEAFADYA : 148
 Os3bglu7 : DAYRFSISWSRIEPEGSGKINSNGVAFYNNRLIDYLIKIEGIPYANLYHYDLPLALEVQYGGGLNRKIVEAFADYA : 148
 Os12bglu38 : DAYRFSISWSRIEPEGSGKINSNGVAFYNNRLIDYLIKIEGIPYANLYHYDLPLALEVQYGGGLNRKIVEAFADYA : 148
 Os11bglu37 : DAYRFSISWTRILPNGLGINREGVAFYNNRLINVIKMIPEVTIFHWDTPQALESKYGGGFSENIVKDYADFA : 148
 Os11bglu35 : DAYRFSISWTRILPNGLGINREGVAFYNNRLINVIKMIPEVTIFHWDTPQALESKYGGGFSENIVKDYADFA : 148
 Os9bglu30 : DAYRFSISWTRILPNGLGINREGVAFYNNRLINVIKMIPEVTIFHWDTPQALESKYGGGFSENIVKDYADFA : 148
 Os9bglu29 : DAYRFSISWTRILPNGLGINREGVAFYNNRLINVIKMIPEVTIFHWDTPQALESKYGGGFSENIVKDYADFA : 148
 Os8bglu28 : DAYRFSISWTRILPNGLGINREGVAFYNNRLINVIKMIPEVTIFHWDTPQALESKYGGGFSENIVKDYADFA : 148
 Os8bglu27 : DAYRFSISWTRILPNGLGINREGVAFYNNRLINVIKMIPEVTIFHWDTPQALESKYGGGFSENIVKDYADFA : 148
 Os4bglu10 : DAYRFSISWSRIEPLPS-ALGVNREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 Os4bglu11 : DAYRFSISWSRIEPLPS-ALGVNREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 Os4bglu9 : DAYRFSISWSRIEPLPS-ALGVNREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 Os4bglu13 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 Os4bglu12 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 Os6bglu24 : DAYRFSISWPRIEPLPS-ALGVNREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU17 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU12 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU13 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU14 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU15 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU16 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 99
 AtBGLU18 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU19 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU20 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU21 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 146
 AtBGLU22 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU23 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU24 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU25 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU26 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU27 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU28 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU29 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU30 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU31 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU32 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU33 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU34 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 146
 AtBGLU35 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 146
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 AtBGLU37 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 AtBGLU38 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 AtBGLU39 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 134
 Os4bglu18 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 Os4bglu14 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 Os4bglu16 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU45 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 149
 AtBGLU46 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 AtBGLU47 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 Os9bglu33 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os9bglu32 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os9bglu31 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os1bglu2 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 148
 Os1bglu3 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os1bglu5 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os5bglu22 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os5bglu23 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os5bglu20 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os5bglu21 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 Os5bglu19 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 147
 AtBGLU1 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 144
 AtBGLU3 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 143
 AtBGLU4 : DAYRFSISWTRILPNGLGINREGISYNNLINELLISKGVQPEVTILFHWDTPQALEDKYKGLSPNIINDYKDYA : 144

AtBGLU5 : DAFRFSISWSRLIPNGRGSVNQKGLQFYKNLISELITHGIEPHVTLYHYDHPQYLEDEXYGGWNNMMKIDFTAV : 144
 AtBGLU6 : DAFRFSISWSRLIPNRRGPNQKGLQFYKNLISELVNHGIEPVTLHHFDHPQYLEDEXYGGWNNHMMIVEDFTAKA : 145
 AtBGLU7 : ESFRFSISWSRLIPNGRGRINPKGLLFYKNLIKELRSHGIEPHVTLYHYDLPQSLDEXYGGWINNRKIIEEDFTAF : 145
 AtBGLU8 : ESFRFSISWSRLIPNGRGRINPKGLLFYKNLIKELRSHGIEPHVTLYHYDLPQSLDEXYGGWINHKIIEEDFTAF : 144
 AtBGLU9 : ESFRFSISWSRLIPNGRGLINPKGLLFYNNLIKDLKSHGIEPHVTLYHYDLPQSLDEXYGGWINNRKIIEEDFTAF : 144
 AtBGLU10 : ESFRFSISWSRLIPNGRLINPKGLLFYNNLIKELSHGIEPHVTLYHYDLPQSLDEXYGGWINNRKIIEEDFTAKA : 147
 AtBGLU11 : EAYRFSISWSRLIPSGRGINPKGLQFYNNLIKDELITHGIEPHVTLYHHFDLPQALEDEXYGGWISQEIIVRDFATA : 146
 Osbglu39 : NCYRFQISWSRVCPQCDGAFNDBGIAFYDRFIDLIARGIEPMICLYHFDMPALAAQENNGFNDRRVMEAFIRMG : 143
 Os11bglu36 : SVFRMGIDWARMPEEELSVMFAALERIRWITQVRREYGMKVMLTLFPHSLPFWAGKYGWKMEKTVTFYFMDIV : 149
 54f W R6 p g g6 Y I 6 g p t6 h d P l g d5 a

Os10bglu34 : ETCFQAFGDRVKHWITFNEPHTVAVQANDSG-MHAPGRCSVLLH-----LYCKK--GNSGTEPYIVAHHNMLSH : 214
 Os3bglu6 : ETCFREFGDRVKHWITFNEPHTVAIQGYDAG-LQAPGRCSVLLH-----LYCKA--GNSGTEPYVVAHHFILAH : 214
 AtBGLU40 : EVCFQRFGDRVKHWITFNEPHTFAIQGYDVG-LQAPGRCTILFK-----LTCRE--GNSSTEPYIVGHNVLITH : 214
 Os6bglu25 : FTCFKFEGDRVKHWITFNEPYNFAIDGYDLG-IQAPGRCSILSH-----VFCRE--GKSSTEPYIVAHHNILLAH : 214
 AtBGLU41 : FTCFKAFGDRVKYWITFNEPHGVSIOGYDTG-IQAPGRCSLLGH-----WFCKK--GKSSVEPYIVAHHNILLSH : 215
 Os1bglu4 : EACFANFGDRVKHWITFNEPLQTAVNGYGIG-HFAPGGG-----EGETARCYLAHHYQILAH : 203
 AtBGLU42 : DACFANFGDRVKHWITFNEPLQTSVNCHCIG-IFAPGNN-----EKPLIEPYLVSHHQVILAH : 204
 Os1bglu1 : EFCFKTFGDRVKNMFTFNEPRVVAALGYDDG-NFAPGRCT-----KCTAG--NSATEPYIVAHHILLSH : 209
 Os7bglu26 : DFCFQTFGDRVKDWFTFNEPRCVAALGYDNG-FHAPGRCS-----GCDAG--GNSSTTEPYLAAHHILLSH : 210
 AtBGLU43 : RVLQTFGDRVKNMFTFNEPRVVAALGYDNG-IFAPGRCSSEAFG-----NCTDG--NSATEPYIVAHHILLAH : 211
 AtBGLU44 : EFCYKTFGDRVKNMFTFNEPRVVAALGYDNG-IFAPGRCSKAFG-----NCTEG--NSATEPYIVTHHILLAH : 213
 Os3bglu8 : EFCFKTYGDRVKNMFTFNEPRIVAALCHDTG-TDPPNRCT-----KCAAG--GNSATEPYIVAHHIILLSH : 210
 Os3bglu7 : DFCFKTFGNRVKHWITFNEPRVALLGYDQG-TNPPKRCCT-----KCAAG--GNSATEPYIVAHHNILLSH : 210
 Os12bglu38 : DFCFKTYGHKVKNMFTFNEPRMMAHNGYDGD-FVFPGRCT-----GQPG--GNSATEPYIAHHNILLSH : 210
 Os11bglu37 : EVCFREFGDRVKYWITFNEPFTYNAYGYGKG-VFAPGRCSYVVS-----KSCGAG--DSSREPYLVTHHILLSH : 214
 Os11bglu35 : EVCFHHEFGDRVKYWITFNEPFTYSAYGYGGG-VFASGRCAPIVVS-----KSCGAG--DSSREPYLVTHHILLSH : 214
 Os9bglu30 : EVCFREFGDRVKYWITFNEPFTYSAYGYGKG-VFAPGRCSYVVS-----KSCGVG--DSSREPYLVTHHILLSH : 214
 Os9bglu29 : EVCFREFGDRVKFWATFNEPWTYCSQGYGTG-IHALGRCSPIVVS-----TSCAGG--DSSREPYLAAHHVILAH : 214
 Os8bglu28 : DFCFSLFGDRVKLWNTFNEPTIFCMNGYATG-IMAPGRCSPYAS-----ASCAAG--DSGREPYVAGHHLLVAH : 213
 Os8bglu27 : DVCFREFGDRVKSNTFNEPMIFCAGGYGSG-TKAPGRCSPIVVS-----KKCAPG--DSGNEPYVAGHHNLLAH : 214
 Os4bglu10 : ETCFKFEGDRVKHWITFNEPWNFCSMGYASG-TMAPGRCSSWEK-----GKCRVG--DSGREPYTACHHQLLAH : 215
 Os4bglu11 : ETCFKFEGDRVKHWITFNEPWTFCSMGYASG-IMAPGRCSSWEV-----GKCRVG--DSGREPYTACHHQLLAH : 214
 Os4bglu9 : ETCFKFEGDRVKHWITFNEPWFIFCSMGYASG-TYAPGRCSPWEM-----GKCSVG--DSGREPYTACHHQLLAH : 215
 Os4bglu13 : ETCFKFEGDRVKHWITFNEPLSFCVAGYASG-GMFAPGRCSPEW-----GNCISAG--DSGREPYTACHHQLLAH : 215
 Os4bglu12 : ETCFKFEGDRVKNWITFNEPWTFCSNGYATG-LFAPGRCSPEWK-----GNCISVG--DSGREPYTACHHQLLAH : 215
 Os6bglu24 : DFCFREFGDRVKYWITFNEPWSFSIGYSNG-ILAPGRCSSQKG-----SGCSKG--DSGREPYIVAHHNQLLAH : 214
 AtBGLU17 : DFCFKFEGDRVKHWITFNEPNMFALGYNVG-NIAPGRCSYVY-----QNCITVG--NSATEPYIVGHNMLITH : 214
 AtBGLU12 : DFCFKNFGDRVKHWMITFNEPLTVVQQGYVAG-VMAPGRCSKFTN-----PNCITAG--NGATEPYIVGHNMLIAH : 215
 AtBGLU13 : DFCFKNFGDRVKHWMITFNEPLTVVQQGYVAG-VMAPGRCSKFTN-----PNCITAG--NGATEPYIVGHNMLIAH : 215
 AtBGLU14 : DFCFKSFGDRVKHWITFNEPLTVVQQGYVAG-VMAPGRCSKFTN-----PNCITAG--NGATEPYIVGHNMLIAH : 215
 AtBGLU15 : DFCFKNFGDRVKHWMITFNEPLTVVQQGYVAG-VMAPGRCSKFTN-----PNCITAG--NGATEPYIVGHNMLIAH : 215
 AtBGLU16 : ELCFQKFGDRVKQWITFNEPYTMVHEGYITG-QKAPGRCSNFYK-----PDLGG--DAATEPYIVGHNMLIAH : 165
 AtBGLU18 : NFTFHEYGHKVKHWITFNEPWFVFSRAGYDNG-KKAPGRCSPIYPGYG--QHQQD--GRSGYEAIVQVSHNLLSH : 217
 AtBGLU19 : NFTFHEYGDVKVNMWITFNEPWFVFSRAGYDVG-KKAPGRCSPIYKEFG--KLQQD--GRSGFEPIVVSHNLLVH : 217
 AtBGLU20 : NFTFQEGYGDVKVNMWITFNEPWFVFSRAGYDIG-NKAPGRCSKYIKEHG--EMCHD--GRSGHEAVIVSHNMLIAH : 217
 AtBGLU21 : DYVFTEYGGKVKNMWITFNEPWFVFAHAGYDLG-KKAPGRCSRYVPG-----CEDR-EGSGKEAVLVSHNLLNAH : 213
 AtBGLU22 : DYVFTEYGGKVKNMWITFNEPWFVFAHAGYDVG-KKAPGRCSRYLKG-----CEDR-DGRSGYEAIVLVSHNMLIAH : 215
 AtBGLU23 : DFVFEQYGGKVKNMWITFNEPWFVFAHAGYDVG-KKAPGRCSRYVNAK-----CQD--GRSGYEAIVLVTHNLLSH : 214
 AtBGLU24 : EFVEKEFGDKVKHWITFNEPWFVFAHAGYDVG-KKAPGRCSPIYAKDETQKGDCLG--GRSGYEAIVLVSHNMLIAH : 219
 AtBGLU25 : QFAENKYGDRVKHWMITFNEPYEFSRAGYETG-EKAPGRCSKYVNEK-----CVA--GKSGHEVYTVSHNMLIAH : 215
 AtBGLU26 : SFCFERFGDRVSLWCTMNEPWFYSVAGYDTG-RKAPGRCSKYVNG-----ASVA--GMSGYEAIVIVSHNMLIAH : 215
 AtBGLU27 : ALCFEEFGDRVKLWITFNEPWFYSIGYDTG-RKAPGRASKYMN-----AAVA--GESGLEVYTVSHNMLIAH : 214
 AtBGLU28 : RVCFEFGDKVKNMWITFNEPYVITVAGYDTG-NKAPGRCSKWVNS-----KCQG--GDSGTEPYIAHHNLLAH : 214
 AtBGLU29 : RVCFENFGDKVKNMWITFNEPYVISVAGYDTG-IKAVGRCSKWVNS-----RCQA--GDSAIPEPYIVSHHLLSH : 214
 AtBGLU30 : RLCFEEFGDKVKNMWITFNEPYIMTVAGYDQG-NKAAGRCSKWVNE-----KCQA--GDSSTEPYIVSHHLLAH : 214
 AtBGLU31 : RFCFQEFGDKVSMWITFNEPYVYSVSGYDAG-NKAMGRCSKWVNS-----LCIA--GDSGTEPYLVSHHLLAH : 214
 AtBGLU32 : RFCFQEFGDKVSMWITFNEPYVYSVSGYDAG-NKAIGRCSKWVNS-----LCIA--GDSGTEPYLVSHHLLAH : 214
 AtBGLU33 : NRCFKFEGDRVKNWATFNEPSVYSVAGYSKG-KKAPGRCSKWQAP-----KOPT--GDSSEEPYIVAHHNQLAH : 215
 AtBGLU34 : ELLFQRFGDRVKFWITLNQPFSLATKGYDGD-SYPPGRCTG-----CELG--GDSGVEPYTVAAHNQLAH : 208
 AtBGLU35 : ELLFQRFGDRVKFWITLNQPLSLALKGYGNG-SYPPGRCTG-----CELG--GDSGVEPYTVAAHNQLAH : 208
 AtBGLU36 : ELLFQRFGDRVKFWITLNQPYSLAVKGYDGD-QYPPGRCTD-----CEFG--GDSGTEPYIVGHHLLAH : 203
 AtBGLU37 : DFCFERFGDRVKHWITLNQLFVTPTRYALG-TDAPGRCSQWVDK-----RCYG--GDSSTEPYIVAHHNQLAH : 213
 AtBGLU38 : DFCFELFGDRVKNWITLNQLYTVPTRYALG-TDAPGRCSPKIDV-----RCPG--GNSSTEPYIVAHHNQLAH : 213
 AtBGLU39 : NLCFKIFGDRVKHWITLNQLYTVPTRYAMG-TDAP-----EPYIVAHHNQLAH : 182
 Os4bglu18 : DFCFGAFGDRVKYWITFNEPNVAVRHGYMLG-TYPPSRCSPPFG-----HCARGG--DSHAEPYVAAHNVLIAH : 214
 Os4bglu14 : EVCFKLFGDRVKFWITLNQPNLSIKFSYMDG-FYSPGRCSPEFG-----KCALG--NSSIEPYVAGHNILLSH : 213
 Os4bglu16 : DVCFNAPFGDRVKFWITFNEPNLSTRHQWILG-EFPPNHCSPPFG-----NCSG--DSRREPYAAAHHNILLSH : 214
 AtBGLU45 : DFCFKHFGNRVKYWITFNEPNQQLILGYLTG-KFPPSRCSPPYG-----NCSQG--NSETEPFIAAHNMILAH : 214
 AtBGLU46 : DFCFKHFGDRVKHWITFNEPNQHSILASVDSG-LFPARCSMPYG-----NCTHG--NSETEPFIAAHNMILAH : 213
 AtBGLU47 : NICFRHFGDRVKFWSTFNEPNVQVILGYRTG-TYPPSRCSKPPG-----NCSG--DSYIEPLVAAHNMLIAH : 213
 Os9bglu33 : EVCFKNFGDRVKHWITFNEPNIEPIGGYDAG-DRPPRCSYPFG-----TNC--TGGDSSTEPYIVAHHLLAH : 213
 Os9bglu32 : EVCFKNFGDRVKHWITFNEPNIEPIGGYDAG-VQPPRCSYPFG-----TNC--TGGDSSTEPYIVAHHLLAH : 213
 Os9bglu31 : DVCFKNFGDRVKHWITFNEPNIEPIGGYDQG-ILPPRCSMPFGV-----LSC--DNCNSTTEPYIVAHHLLAH : 214
 Os1bglu2 : DVCFREFGDRVLHWITLAEPNIAALGYDGTG-VLSPGHCSDPFGL-----TEC--TVGNSTVEPYIAAHNMILAH : 215
 Os1bglu3 : DVCFREFGDRVSHWITLAEPNVAALGYDGTG-EFAPGRCSDPFGV-----TKC--TVGNSSVEPYVAAHNMLIAH : 214
 Os1bglu5 : DVCFKFEGDRVHWITFNEPNVASIGYDSDG-QLAPGRCSDPFGI-----RKC--TVGNSSVEPYVAAHNMLIAH : 214
 Os5bglu22 : DVCFREFGDRVHWITFNEPNVLSIAAGYDSDG-AFPGRCSPPFG-----N-C--TAGNSTVEPYVVAHNSILAH : 213
 Os5bglu23 : DVCFREFGDLVHWITFNEPNVLSIAGYDSDG-VIPPCRCSPFGT-----S-C--AAGNSTVEPYVAAHNSILAH : 213
 Os5bglu20 : DVCFREFGDRVHWITFNEPNVMAQGYDGTG-TLPPNHCSYPFG-----SNC--TGCNSTVEPYLVFIHHNLLAH : 213
 Os5bglu21 : DVCFREFGDRVHWITFNEPNMAQAGYDMDG-ILPPNRCSYPFG-----SNC--TAGNSTVEPYLVFIHHNLLAH : 213

Os5bglu19 : DVCFREFGDRVAHWTTTSIEPNVMAQSGYDDG-YLPPNRCSPYFGR-----SNC---TLGNSSTVEPYLFHTHTLAAH : 214
 AtBGLU1 : DVCFREFGNHVKFWTTTNEANIFTIGGYNDG-NSPPGRCSPFGR-----NC---TLGNSSTVEPYIVGNLHLLAAH : 209
 AtBGLU3 : NVCFREFGHHVKFWTTTNEANIFTIGGYNDG-ITPPGRCSSPGR-----NC---SSGNSSTVEPYIVGNLHLLAAH : 208
 AtBGLU4 : DVCFREFGNHVKFWTTTNEANIFSIGGYNDG-DTPPGRCSSKPSK-----NC---SSGNSSTVEPYIVGNLHLLAAH : 209
 AtBGLU5 : DVCFREFGNYVKFWTTTNEANVFTIGGYNDG-DTPPGRCSSLPK-----NC---LLGNSSTVEPYIVGNLHLLAAH : 209
 AtBGLU6 : DVCFREFGNHVKFWTTTNEGNIFSIGGYNDG-DSPPGRCSSIPGQ-----NC---LLGNSSTVEPYIVGNLHLLAAH : 210
 AtBGLU7 : DVCFREFGEDVKLWTKINEATLFAIGSGD--GMRYGHP-P-----MNY---STANVCTETIYIAGHNMLLAAH : 207
 AtBGLU8 : DVCFREFGEDVKLWTTTNEATIFAFAFGK--DVRYGNC-----TTGNYCMEIYIAGHNMLLAAH : 201
 AtBGLU9 : DVCFREFGEDVKLWTTTNEATIFAIGSDQG-TAPPGHCS-PNKF----VNC---STGNSSTVEPYIAGHNMLLAAH : 210
 AtBGLU10 : DVCFREFGEDVKLWTTTNEATIFAIGSDQG-ISPPGHCS-PNKF----INC---TSGNSSTVEPYIAGHNMLLAAH : 213
 AtBGLU11 : DTCFKEFGDRVSHWTTTNEVNVFALGGYDQG-ITPPARCSPPFG-----LNC---TKGNSSTVEPYIAGHNMLLAAH : 212
 Osbglu39 : KKMIDCFGDRVYVWLTTFNEQNIFHMPFAFR----ISYLGKE-----QTLRELVELOHHAHVAH : 198
 Os11bglu36 : RLVVDCVSNLVDYVWVIFNEPHVFVMLTFCAC--AWPGGDP--N-----AIEVATSTLPTGVYNQALHWMATAH : 213
 c g 6 W t 2p g g pgrc c ep H H

Os10bglu34 : ATVSDIYRKKKYKASQNELGISFSDVIWYEPMSNSTADIEBAKRAQEFQLGWFADEFFFCDY-PATMRSRVGS-RL : 287
 Os3bglu6 : AAAASIYRTKYKATQNGQLGIAFDVMWFEPMSNTTIDIEBAKRAQEFQLGWFADEFFFCDY-PATMRARVGE-RL : 287
 AtBGLU40 : ATVSDIYRKKKYKAKQGSGLGIAFDVMWFEPMSNKTEDIEBAKRAQDFQLGWFDPLMFCDY-PSSMRSLVGS-RL : 287
 Os6bglu25 : ACAFRAMEQHFKNEQGGLIGIATNSRWYEPFNSADETEAAARAMDFFELGWFDPLMFCHY-PSPMQKLAGD-RL : 287
 AtBGLU41 : AAAYHTYQRNFKEKQRQIGISLDAKYWEPMSDCDEKDAARAMDFFELGWFDPLINCXY-PASMKSLVEE-RL : 288
 Os1bglu4 : AAADVYRKRKFKAQVGEVGLVVDCEWAEPEKTEKEDQVAAERLDFQLGWYLDPIYFCDY-PESMRQRLGD-DL : 276
 AtBGLU42 : ATAVSIYRKYYKESQGGQIGLSVDCEWAEPEKTEKEDQVAAERLDFQLGWFDPLFFCDY-PASMRQRLGD-NL : 277
 Os1bglu1 : ASAVQRYRHKYQHIQKQKIGILDFVWYEGLTNSTADQAAQSRDFHVGWFLHPIYCEY-EKSLQVIVKE-RL : 282
 Os7bglu26 : AAAVKRYREKYQLYQKQKIGILDFVWYEPFSDSNADRAAQAARDFHVGWFLDPIIHCRY-PYSMLEIVKD-RM : 283
 AtBGLU43 : AAAVQRYRQNYQEKQKQKIGILDFVWYEPFLTSQADNDAAQAARDFHVGWFLHPIVYCEY-ENTLQNVKE-RL : 284
 AtBGLU44 : AAAVQRYRKYKQAKQKQKIGILDFVWYEPFLTSQADNDAAQAARDFHVGWFLHPIVYCEY-EKTMRLVGE-RL : 286
 Os3bglu8 : ATAVDRYRNKQFQASQKQKIGILDFVWYEPFLTSQADNDAAQAARDFHVGWFLDPLINCXY-EKNMRDIVKE-RL : 283
 Os3bglu7 : AAAVARYRTKYQAAQKQKIGILDFVWYEPFLTSQADNDAAQAARDFHVGWFLDPLINCXY-SQIMQDLVKD-RL : 283
 Os12bglu38 : AAAVRTYRDKYQAIQKQKIGILDFVWYEPFLTSQADNDAAQAARDFHVGWFLDPIYCEY-EETMQNAVKE-RL : 283
 Os11bglu37 : AADLPY----OPTQKQIGMVVWTHWVFPYDDTVAHRGAVQSLDFMFGWFDPLVHCDY-PGTMRGWLGD-RL : 283
 Os11bglu35 : AAVVHLRYTRYOPTQKQIGMVVWTHWVFPYDDTVAHRGAVQSLDFMFGWFDPLVHCDY-PGTMRGWLGD-RL : 287
 Os9bglu30 : AAAVQLYRTKYOPTQKQIGMVVWTHWVFPYDNDADRGAVQSLDFIYGWFDPIVHCDY-PGTMRGWLGN-RL : 287
 Os9bglu29 : ATAVHLRYRTKYOPTQKQIGITAVSHWVFPYDNTAADRRVAVQSLDFMYGWFDPIVHCDY-PGTMRGWLGA-RL : 287
 Os8bglu28 : AEAVRLYRKYRAAHQGEVGIQVSHWVFPYDNTAADRRARALDEMLGWFDPIVHCDY-PAMRRLVGG-RL : 286
 Os8bglu27 : AEAVRLYRKYQATQKQIGITQVSHWVFPYDNTAADKHAVRSLDFMYGWFDPIVFCDY-PGTMRLVGD-RL : 287
 Os4bglu10 : AETVRLYKEKYQLQKQKIGILNADWVFLPSQSSSDAARALDEMLGWFDPLIRCDY-PLSMRELIVGN-RL : 288
 Os4bglu11 : AETVRLYKEKYQ-LQKQKIGILNADWVFLPSQSSSDAARALDEMLGWFDPLIRCDY-PLSMRELIVGN-RL : 286
 Os4bglu9 : AETVRLYKEKYQ-LQKQKIGITVSNWVFPFSRSKSNDAARALDEMLGWFDPLIRCDY-PLNMRELIVGN-RL : 287
 Os4bglu13 : AETVRLYKEKYQ-LQKQKIGITVSNWVFPFSRSKSNDAARALDEMLGWFDPLIRCDY-PLSMRELIVRN-RL : 287
 Os4bglu12 : AETVRLYKAKYQ-LQKQKIGITVSHWVFPFSRSKSNDAARALDEMLGWFDPLIRCDY-PLSMRELIVGN-RL : 287
 Os6bglu24 : AAVVQIYREKYQ-GQKQKIGITVSNWVMPYEDSKEDKHATKRALDEMYGWFDPLTKCDY-PVSMRTIVGN-RL : 286
 AtBGLU17 : AATVQLYREKYQSGHGTIGMTQTYWMPKYNTPACBAKALDEFFCFWFADEITYCDY-EKTMRELIVGN-RL : 287
 AtBGLU12 : GEAVKVYREKYKASQKQVGIATNAGNLPYSESAEDRLAAARAMAFTFDYFVEPLVTCY-PIDMVNYVKGGRL : 289
 AtBGLU13 : GEAVKVYREKYKASQKQVGIATNAGNLPYTESAEDRLAAARAMAFTFDYFVEPLVTCY-PVDMVNVNKGGR : 289
 AtBGLU14 : GEAIKVYRKKKYKASQKQVGIATNAGNLPYTESAEDRLAAARAMAFTFDYFVEPLVTCY-PVDMVNVNKGGR : 289
 AtBGLU15 : GAAVQYREKYKASQKQVGIATNAGNLPYTESPKDRALAAARAMAFTFDYFVEPLVTCY-PVDMVNVNKGGR : 288
 AtBGLU16 : GVAVKVYREKYQATQKQKIGIANTAHYPYSDSYADRLAATATAFTDYFVEPIVYCRY-PIEMVSHVKGGR : 239
 AtBGLU18 : AYAVDAFRNCKQCA-GKQKIGIAHSPAWEPEQDL-EHVGGSIENVLDFFILGWHLAETTYCDY-BQSMKDRVGH-RL : 288
 AtBGLU19 : AEAVDAFRKCEKCK-GKQKIGIAHSPAWEPEDEV-EGGQATVENVLDFFIVGWHLAETTFCDY-BQSMKDAVGS-RL : 288
 AtBGLU20 : AEAVDAFRKCDKCK-GKQKIGIAHSPAWEPEAHLEDEHETPTVGLIDFFILGWHLAETTYCDY-BQSMKDLHGH-RL : 289
 AtBGLU21 : AEAVEVFR--QKVK-GKQKIGIAHSPAWEPEPHDLDSNAPTVS-VLDFMLGWHLAETTFCDY-BQIMKDLGY-RL : 283
 AtBGLU22 : AEAVEVFR--QKVK-GKQKIGIAHSPAWEPEPHDLDSNAPTVS-VLDFMLGWHLAETTFCDY-BQIMKDLHGH-RL : 285
 AtBGLU23 : AEAVEAFRKCEKCK-GKQKIGIAHSPAWEAHDLDSQEGASIDRALDFFILGWHLAETTFCDY-BQIMKDIVGH-RL : 286
 AtBGLU24 : AEAVEAFRKCEKCK-GKQKIGIAHSPAWEAHDLDEQSGATIDRALDFFIMGWHLAETTFCDY-BQIMKDLVGH-RL : 291
 AtBGLU25 : AEAVEEFRKCGKCT-GKQKIGIVQSPMWFEPYDKSPSEEIVKRAMDFTLGWHLAETITHCDY-BQAMKDVVGS-RL : 287
 AtBGLU26 : AEAVEVFRKCDHIK-NCQIGIAHNPLWVFPYDPPDVEGCNRAMDFFILGWHLAETACDY-BETMKKSVDG-RL : 287
 AtBGLU27 : AEAVEVFRNNPKCK-DKQKIGIAHCPWFEPYDSCPKDIEACERAMEFMEGWHLAETVYCDY-EAVMKKSIGK-RL : 286
 AtBGLU28 : AAAVQYFRKCDKNTQ-DQIGIVSPWFEPYDSDPADNEAVKRALATELDHDEVIHCDY-BEMMKKLGN-RL : 286
 AtBGLU29 : AAAVQYFRNCKNTLQDKIGIVSPWLEPYDSSADKEAVERGLPLELEWHLPVYCDY-BETMKKHVGN-RL : 287
 AtBGLU30 : AAAVEEFRKCEKTSHDQIGIVSPWFEPYHSTDDKEBAERALAFELGWHLAETVHCDY-ELIVKKYAGN-RL : 287
 AtBGLU31 : AAAVEEFRKCDKISQDSKIGIVSPWFEPYDSSNADKEAVERALAFENIGWHLAETLVFCDY-BETIKISAGN-RL : 287
 AtBGLU32 : AAAVEEFRKCDKISQDAKIGIVSPWFEPYDISEKDEAVERALAFENIGWHLAETLVFCDY-BETIKTTAGN-RL : 287
 AtBGLU33 : LAAVDEFRNCKKVEGGKIGIVVSHWVFPKDPSSSEVKAAARSLEYQLGWFLRPLTYCY-BAEMLELVNI-RL : 288
 AtBGLU34 : AKTVSLYRKRYQKFGQKIGITTLIGRWFLPLNESELDKAAAKRAFDFFVGWFDPLVYCY-BTIMREMGD-RL : 281
 AtBGLU35 : AKTVSLYRKRYQKFGQKIGITTLIGRWFLPLNESELDKAAAKRAFDFFVGWFDPLVYCY-BTIMREMGD-RL : 281
 AtBGLU36 : MEAVSLYRKRYQKFGQKIGITTLIGRWFLPLNENDLDKAAAKREFDFSVLGSTGVRTISK--D--NERLGD-RL : 272
 AtBGLU37 : ATVVDLYRTRYK-YQGEKIGPVMITRWFLPYDDTLESQATWRAKEFFLGFWEPLTKCY-PYIMRKLIVGN-RL : 285
 AtBGLU38 : AAADVYRTKYKDDQKQKIGPVMITRWFLPFDSQESKDATEAKIFFHGFWMGPLETCY-PDIMREYVGD-RL : 286
 AtBGLU39 : AKVVDLYRKKYKPKQRQIGIVMITRWVFPYDSTQANIDATERNKEFFLGFWEPLTKCY-PDIMRKLIVGR-RL : 255
 Os4bglu18 : ATAIEIYRKRYQSKQRGMGMVYISTWVFPYLDVPEDRALATELAFETPWFDPVYCDY-BPEMRQLGG-RL : 287
 Os4bglu14 : ANAVSVYRNKYQKQGGQIGIATNITWYEPFRNTTIDLLAVKRALSFASWFLDPIILCDY-PTEMREVLGQ-SL : 286
 Os4bglu16 : AAAVHNKYTNQAKQGGESIGIVAVKWEPLTSTEDVRAARALAFEDWFDPIFFCDY-BREMREILSS-NL : 287
 AtBGLU45 : AKAVNIYRTKYQKQKESIGIVVQTSWEPYDSDNADKEAERAAQSFYSNWI-DPVIYCY-BPEMVDILGP-AL : 287
 AtBGLU46 : AKAIQIYRTKYQKQKIGIVVQTSWEPYDISEKDEAVERALAFENIGWHLAETLVFCDY-BETIKTTAGN-RL : 286
 AtBGLU47 : LAAVNLRYTKQEQQRQIGIVNTIWFEPYDSDSLADRLAADRAQAFYLTWFDPVVFCRY-BREMREILGD-DL : 286
 Os9bglu33 : ASAVSIYRKYQAIQGGQIGITMVRWHEPYTDKTDAAAARMEFHTIGWFLHPLVHCDY-BPVMRSRVGV-RL : 286
 Os9bglu32 : ASAVSIYRKYQAIQGGQIGITLWGWYEPYTDADAADAAAARMEFHTIGWFLHPLVHCDY-BPVMRSRVGA-RL : 286
 Os9bglu31 : SSASVLYREKYQATQGGQIGITLWGWYEPYTDQPEDVAAARMDHFGWYHPLVYCDY-BPVMRKNVGS-RL : 287
 Os1bglu2 : AAIVRLYREKYQALQKQKIGIVNFSLSYSPPLTNSIADLQAAQYKDFSYGWIHPLVFCDY-BQVMKKTIGS-RL : 288
 Os1bglu3 : AAIVRLYREKYQTLQKQKIGIVNFSLSYSPPLTNSIADLQAAQYKDFSYGWIHPLVFCDY-BQVMKKAIGS-RL : 287
 Os1bglu5 : ASVTKLREKYQVAGKEIGISYVTFWYAPLNTSTVDLEATKQCQDFIVHWLRLVFCDY-BQVMKNTIVGS-RL : 287

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Os5bglu22 : ASVTRLVYDKYQATQEFVGMNYSFYNYPFSSSSADIAAATQALDFMVGWIDPLVYCDY-PEIMKKKAGS-RI : 286
Os5bglu23 : ASAVRLVWDKYQAQKGVVGTNYSFYNYPLSRSCADIDAVQVLDFTTGWIDPLVYCDY-PEIMKKKAGS-RI : 286
Os5bglu20 : ASAVRLVREKYQVAKQKIVGINYSFYNYPLTDSAEIDIGATERAKQFMYGWIHPLVFCDY-PETIKKVGS-RL : 286
Os5bglu21 : ASAVRLVREKYQVAKQKIIIGINYSFYNYPFTDSAEIDIGATERAKKFYIYGWIHPLVFCDY-PETMKKAAGS-RL : 286
Os5bglu19 : ASAVRLVREKHAQAQKGVVGMNYSFYNYPLTESTEDIAATEVKDFMYGWIHPLVFCDY-PETMKKAAGS-RL : 287
AtBGLU1 : ASVSRLYKQKYKDIQGSVGFSLFAMNTPSTNSKDDIATQRANDEFYLGWMLPLIYCDY-PDMKRTVGS-RL : 282
AtBGLU3 : ASASRLYKQKYKDMQGSVGFSLFSLGFTPSTSSKDDIATQRAQDFYVGWFLRPLLFCDY-PDMKRTVGS-RL : 281
AtBGLU4 : ASVSRLYKQKYKDKQGSIGFSLFILGLIPTSTSSKDDATATQRAQDFYVGWFLRPLLFCDY-PDMKRTVGS-RL : 282
AtBGLU5 : ASASRLYKQKYKDKQGSIGFSLYLMGLTPSTSSKDDAATQRAKDFYFGW----- : 260
AtBGLU6 : ASVSRLYKQNYKDKQGSIGFSLITIGFSPSTSSKDDAATQRAQDEFNGWMLPLIYCDY-PDMKRTVGS-RL : 283
AtBGLU7 : SSASNLVYKLYKTKQKQSVGLSYAYGLSPYTDKDDDEATERAEAFYLGWMLPLVFCDY-PDMKRTVGS-RL : 280
AtBGLU8 : ASASNLVYKLYKSKQKQSIGLSIFALGLTPYTNKDDDEIATQRAKAFYLGWMLPLVFCDY-PDMKRTVGS-RL : 274
AtBGLU9 : ASASKLYKLYKSKQKQSIGLSIFAFGLSPYTNKDDDEIATQRAKTFYLGWMLPLVFCDY-PDMKRTVGS-RL : 283
AtBGLU10 : ASASKLYKLYKSKQKQSIGLSIFAFGLSPYTNKDDDEIATQRAKAFYLGWMLPLVFCDY-PDMKRTVGS-RL : 286
AtBGLU11 : ASATILYKQYKQKQHSVGLSYTYGAVPLTNSVKDKQATAVNDFTYIGWIHPLVFCDY-PETMKTNVGS-RL : 285
Os5bglu39 : MSLTEYLHQTKPG---QIMGGMIAHQLIYPATCKPRIFCAQQYDEFLNQNLGVFAGQGYSAVMAVVEQEGFG : 270
Os11bglu36 : SEAYDYIHSKSKNERKPIVGVAAHVSTRP-----YCLFDVAVALAN-----SIT--LF : 261
a g 6G p a r g p g y p

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* 320 * 340 * 360 *
Os10bglu34 : PKETEKAAAL-VNGSLDFMGINHYTTFTKDDQSTVIE---KLLNNTLADTATISVPFRNGQ-PIGDRANSIWLY : 357
Os3bglu6 : PRFTADAAV-VKALDFVGINHYTTYTRHNNNTIIG---TLLNNTLADTGTVSLPFGKNGK-PIGDRANSIWLY : 357
AtBGLU40 : PFTTGSSSL-VKGSDFVGINHYTTYTRHNNNTIIG---TLLHDAVSDSGVTTLPPK-GLSTIGDRASSIWLY : 357
Os6bglu25 : POFSTHASKL-VSGSLDFVGINHYTTTLARNDRLRIRK---LVMDDASTDSAVIPTAYRHGK-KIGETAASSWLH : 357
AtBGLU41 : PKITTPMYKT-LKGAIFYVGINHYTTTLARNDRTRIRK---LILQDASSDSAVITSSFRGGV-AIGERAGSSWLH : 358
Os1bglu4 : PTFSEKDFEF-IRNKIDFVGINHYTSRIAHHQDPE-D---IYFYRVQQVERIEKWNT--GE-KIGERAASEWLF : 343
AtBGLU42 : PRFTTEKKEFMQNSWDFLGNHYTSLIHSVSNKEAE---SNFYQAQELERIVELEN--GD-LIGERAASDWLY : 346
Os1bglu1 : PKFTADVHM-VKGSIDYVGINHYTAYTVRDQPNATT---LPS-YSSDWHAAPIYER-DGV-PIGPRANSDWLY : 350
Os7bglu26 : PTFSDERSRM-VKDSIDYVGINHYTSMKDPGFWNL---PTS-YQDDWHVGFAYER-NGV-PIGAQANSYWLY : 351
AtBGLU43 : PKFTEEVVKM-VKGSIDFVGINHYTTYTMSDPKISTTP---KDLGYQDDWNVTFNFAK-NGT-PIGPRAHSEWLY : 353
AtBGLU44 : PKFTEKVKM-VKGSIDFVGINHYTTYTMSDPKISTTP---KDLGYQDDWNVVEFGFAK-LGK-PIGPRAYSWLY : 355
Os3bglu8 : PFTTPEAKL-VKGSADYFGINHYTANVMADQAPAPQA---ATS-YSSDWHVSFIFQR-NGV-PIGQANSNWLY : 351
Os3bglu7 : PKFTPEARL-VKGSADYGINHYTASVMKGGQLMQQT---PTS-YSADWQVTYVFAK-NGK-PIGPQANSNWLY : 351
Os12bglu38 : PFTTREOSEM-IKGSADYIAINHYTTYVVS---HHVNKT---SIS-YLNDWDVKISYER-NGV-PIGQAYSNWLY : 349
Os11bglu37 : PKTLAQSAM-VKGSYDFIGINHYTTYAKSMFP-PNS---NELSYDVSRRANTTGFR-NGK-PIGPQFTPIFF : 351
Os11bglu35 : PKFTPAOSAM-VKGSYDFIGINHYTTYAKSVPP-PNS---NELSYDVSRRANTTGFR-NGK-PIGPQ-FTPIFF : 354
Os9bglu30 : PFTTPEOSAM-VKGSYDFIGVNYTTYAKSIPP-PNS---NELSYDVSRRANTTGFR-NGK-PIGPQFTPIFF : 355
Os9bglu29 : PFTTAEQAAA-VRGSDFIGVNYTTYAKSVPL-PSS---NRLSYDVSRRANTTGFR-NGK-PIGPQFTPIFF : 355
Os8bglu28 : PKFTAEQSEM-LRGSDFIGLNYTSSIAVAAP-PNK---KDLGYQDDWNVNATGYR-NSI-PIGPQFTPIFF : 354
Os8bglu27 : PKFTAEQSEL-VKGSYDFIGLNYTSSIAKSVLRPSK---LKPAYATDNNVNTAYR-NGV-PIGPPAFTKIFF : 356
Os4bglu10 : PFTSKEQSEM-VKGAFFIGLNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-NGI-PIGPQAASFWFY : 356
Os4bglu11 : PFTSKEQSEM-VKGAFFIGLNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-NGI-PIGPQAASFWFY : 354
Os4bglu9 : PKFTAEQSEM-VKGSYDFIGLNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-NGT-LIGPQAASWLH : 355
Os4bglu13 : PFTTKEQSEL-IKGSDFIGLNYTSSIAAGSLPP-SNG---LNNSYSTDAARANTAVR-NGI-PIGPQAASPWLY : 355
Os4bglu12 : PFTTKEQSKL-VKGAFFIGLNYTSSIAADNDPP-SNG---LNNSYSTDAARANTAVR-NGI-PIGPQAASPWLY : 355
Os6bglu14 : PFTTKEQSKA-IKGSDFIGLNYTSSIAAGSLPP-SNG---LNNSYSTDAARANTAVR-NGI-PIGPQAASPWLY : 354
AtBGLU27 : PKETKQSKM-VRGSDFEGLNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-NGV-PGPESTADWLF : 355
AtBGLU12 : PFTTAKQSKM-LKGSYDFIGLNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU13 : PFTTAKQSKM-LKGSYDFIGLNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU14 : PFTTAKQSKM-LKGSYDFIGLNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU15 : PFTTAKQSKM-LKGSYDFIGLNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU16 : PFTTPEQSEM-LKGSYDFIGVNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU18 : PKETEAQKKL-LKGSDFVGMNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU19 : PFTTAKQSKA-LKGSDFVGMNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 358
AtBGLU20 : PFTTAKQSKA-LKGSDFVGMNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 358
AtBGLU21 : PFTTAAQSKA-LKGSDFVGMNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 352
AtBGLU22 : PFTTSSQSKA-LKGSDFVGMNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 354
AtBGLU23 : PFTTTEQSKA-LKGSDFVGMNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 355
AtBGLU24 : PFTTTEQIAK-LKGSDFVGMNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 360
AtBGLU25 : PFTTPEQKEK-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU26 : PFTTPEQSKK-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU27 : PFTTAAQSKK-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 355
AtBGLU28 : PFTTPEQSKM-LKGSYDFIGVNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 355
AtBGLU29 : PFTTPEQSKM-LKGSYDFIGVNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU30 : PFTTPEQSKM-LKGSYDFIGVNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU31 : PFTTKEQSKM-LKGSYDFIGVNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 357
AtBGLU32 : PFTTKEQSKM-LKGSYDFIGVNYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 357
AtBGLU33 : PFTTPEQSEK-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 357
AtBGLU34 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 345
AtBGLU35 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 345
AtBGLU36 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 337
AtBGLU37 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 353
AtBGLU38 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 355
AtBGLU39 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 322
Os4bglu18 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 355
Os4bglu14 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 355
Os4bglu16 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 356
AtBGLU45 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 358
AtBGLU46 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 357
AtBGLU47 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 347
Os9bglu33 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 343
Os9bglu32 : PFTTPEQSKL-LKGSYDFVGINHYTSSIAADNDPP-SYG---HNNSYNTDAHAKITGSR-EGV-PIGPKAASDWLL : 348

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Os9bglu31 : PSFTAESKR-VLESYDFVGFNHYVAIVRADLSKL---DQSLRDYMGAAVKYDLPFLKSNN--PLGLTSDFMT : 356
Os1bglu2 : PSFSQVOTEL-IKGAIDFIGINHYYSANVNYRPLVE---GVRDYVATRSVSAR-----VRFN----YEPTEYP : 348
Os1bglu3 : PSFSKVOTEL-VKGTLDFIGVNHYSLSVSDPLAK-----GVRDFIATRSVSCRGLLQGVRF-----PTRSM : 349
Os1bglu5 : PSFTKAQSED-VKGSDFIGMNHYSLSVNDRLPGK-----GTRDFVATISIIYRG-----SKT-----PTSIG : 345
Os5bglu22 : PSFTEESSEL-IRGSADFIGINHYTSVVISDANGETV---GPRDYSAMAATFRISRN-----Q----FVPTRLP : 349
Os5bglu23 : PSFTKEOSEL-IRGSADFIGINHYKSLVSDGNSREKA---GLRDYNAMAAHFRGTT-----YAPSKTL : 347
Os5bglu20 : PIFSNNHSEL-VTNAFDVFGVNHYSSTVTSNNNNVVK---PLQDLTAVATLFRATKNDTPT----PEFLPGNT : 353
Os5bglu21 : PIFSNNHSEM-VTNSDFIGLNHYSSTVTSNNNNVVK---PLQDLTAVATLFRVTKNDTPT----PVFVPGTI : 353
Os5bglu19 : PIFSDFISEL-VTNAFDFIGLNHYSSTVTSNNNNVVK---PLQDVTDISSLFWASKNSTPTLLLRQFLPGTS : 358
AtBGLU1 : PVFSKEESEQ-VKGSSDFIGIHYHLALTAVTNIDINPSL--SGIPDFNSDMG-----SSEYD : 330
AtBGLU3 : PVFSKEESEQ-VKGSSDFIGIHYHLAASVTSIKIKPSI--SGNPDFYSIMGVSMVTWTVLGNFS-----AFEYA : 346
AtBGLU4 : PVFSEKESEQ-VKGSCDFVGVHYHHAASVTNIKSKPSL--SGNPDFYSYMET--DFGKSLDF-----QYA : 342
AtBGLU5 : -----SSEYD : -
AtBGLU6 : PVFSEEESEQ-VKGSSDFIGIHYHLAASITNSKLKPSI--SGNPDFYSIMNV--ILSFFANFS-----SSEYD : 346
AtBGLU7 : PVFSEEESEQ-VKGSSDFVGVHYHNTFTVTNRPAPSLV-TSINKLFFAIGAYLIAAGNASL-----FEFD : 344
AtBGLU8 : PVFSEEESEQ-VKGSSDFVGIHYHTTVVTNQAPYIFPSTNKDFFTDMGAYIISTGNSSS-----FVFD : 339
AtBGLU9 : PVFSEEESEQ-VKGSSDFIGIHYHTTFTVTNHQPSASLFPMSGEGFFKMGVYIIPGTNSSF-----LVWE : 348
AtBGLU10 : PVFSEEESEQ-LKGSSDFIGIHYHTTFTVTN-KPSPSIFPSMNEGFFKMGVYMISAANSSS-----LLWE : 350
AtBGLU11 : PVFSEEESEQ-VKGAFDFVGVHYHMAASVTNIKSKPSI--SGNPDFYSIMGVSMVTWTVLGNFS-----N-EYA : 348
Os9bglu39 : DIYRDEDLALLARTKNDFMAFSYASKTLDSVPIEGT---PVNYLLHGEKNNPYLKATEWN-----WQ : 332
Os11bglu36 : FVYDSI-CD---KL--DFIGINHYGQEVISGPGKLVDN---DEYSESGRG----- : 303

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p d g n d

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Os10bglu34 : IVERS-RILMNVKDRNKP-TVYITENGMDDGNSPF--ISLKNALKD-DKRTKYHNDYLT-NLAADSREDGCD : 426
Os3bglu6 : IVERGM-RSLMNVKERNNSP-PVYITENGMDDSNNPF--ISIKDALKD-SKRITKYHNDYLT-NLAASREDGCD : 426
AtBGLU40 : IVERGM-RSLMNVKERNNSP-PVYITENGMDDSNNPF--ISIKDALKD-AKRITKYHNDYLT-NLAASREDGCD : 426
Os6bglu25 : IVEWGM-FKLMKHVKEKGNP-PVVITENGMDDANHPF--SRLEDVLQD-DKRIQYHNDYMS-NLLDARKEGCD : 426
AtBGLU41 : IVEWGI-RKLAIVVKDINGNP-PVYITENGMDDEKNSPF--IDMEKALKD-DKRITGFHRDYLS-NLSAARNDGCD : 427
Os1bglu4 : IVEWGI-RKLLNNAAKRGNP-VIYVITENGMDDEDDQS--ATLDQVLND-TTRVGYFKGYLA-SVAQAARK-DGAD : 411
AtBGLU42 : AVEWGI-RKTLNMKSKKNHP-PVYITENGMDDEDDQS--ASIHDMLDL-KRVVDYFKSYLA-NVSSQAED-DGVD : 414
Os1bglu1 : IVEWGI-YKAVTVVKEKGNP-TMFLSENGMDDPGN---VTIAQGVHD-TTRVAYYRSYIT-KLKEARD-DGAN : 416
Os7bglu26 : IVEWGI-NKAVTVVKEKGNP-TMFLSENGMDDPGN---VSITQGVHD-TVRIRYRYNYIT-ELKKARD-DGAK : 417
AtBGLU43 : NVEWGM-YKALMTIEERGNP-TMILSENGMDDPGN---ITLTQGLND-TTRVKYRYDYLV-QLKKARD-DGAN : 419
AtBGLU44 : NVEWGM-YKALMTIEERGNP-TMILSENGMDDPGN---ITLTQGLND-TTRVKYRYDYLV-QLKKARD-DGAN : 421
Os3bglu8 : IVEWGM-YGAVNVIKEKGNP-TIILSENGMDQSGN---LTREEFLHD-TERIEFYKNYLT-ELKKARD-DGAN : 417
Os3bglu7 : IVEWGM-YGCVNVIKQKGNP-TVVITENGMDQGAN---LSRDQYLRD-TTRVHFYRSYLT-QLKKARD-DGAN : 417
Os12bglu38 : NVEWGI-YKAVMHVKEKGNP-TIILSENGMDQSGN---LTREEFLHD-TERIEFYKNYLT-ELKKARD-DGAN : 417
Os11bglu37 : NYEPGI-REVLNMTKRRNNP-AIYITENGIDEGNNSTVP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 415
Os11bglu35 : NYEPGI-REVLNMTKRRNNP-AIYITENGIDEGNNSTVP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 420
Os9bglu30 : NYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 421
Os9bglu29 : NYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 423
Os8bglu28 : NYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 422
Os8bglu27 : TYAPGI-REVLNMTKRRNNP-DIYIAENGTEANNSTIPI--AEALRD-DNRISFHYQHLD-FTQLAARK-EGVK : 424
Os4bglu10 : IYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 424
Os4bglu11 : IYEPGI-CEMLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 422
Os4bglu9 : IYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 423
Os4bglu13 : IYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 423
Os4bglu12 : VYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 423
Os6bglu27 : IYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 422
AtBGLU14 : ICEBGI-REVLNMTKRRNNP-VIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 423
AtBGLU12 : IYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 420
AtBGLU13 : IYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 420
AtBGLU14 : ---GI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 403
AtBGLU15 : IYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 419
AtBGLU16 : IYEPGI-REVLNMTKRRNNP-TIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 370
AtBGLU18 : VYSKGI-RYLKVIKDKGNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 426
AtBGLU19 : VYAKGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 428
AtBGLU20 : VYAKGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 429
AtBGLU21 : VYAKGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 421
AtBGLU22 : VYAKGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 423
AtBGLU23 : VYSKGI-RYLKVIKDKGNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 424
AtBGLU24 : VYSTGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 429
AtBGLU25 : VYAKGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 425
AtBGLU26 : TYETGI-RNLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 427
AtBGLU27 : LYEPGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 424
AtBGLU28 : SHEEGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 424
AtBGLU29 : SHEEGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 420
AtBGLU30 : SHEEGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 425
AtBGLU31 : SYEPGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 426
AtBGLU32 : SYEPGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 426
AtBGLU33 : IYEPGI-RKLLNMTKRRNNP-EIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 426
AtBGLU34 : YVYPGI-RQILNMTKRRNNP-LTYITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 413
AtBGLU35 : YVYPGI-RQILNMTKRRNNP-LTYITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 413
AtBGLU36 : FVDKGI-RHLVDLFLVLELLSTRIPDSKSHQKQELL-MLIANALD-NGRIQFQCSHLS--CLKACIEDGCD : 407
AtBGLU37 : YHERGM-LNVMEHFHFKTNGDP-LIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 416
AtBGLU38 : YVYPGI-RQILNMTKRRNNP-LTYITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 422
AtBGLU39 : YHERGM-LNVMEHFHFKTNGDP-LIYVITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 392
Os4bglu18 : VVEDGI-EKVMKFMRRNNNL-PMFITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 423
Os4bglu14 : DVERGM-EKAVTYKQKNNNT-PTYITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 423
Os4bglu16 : VVEEAM-EKVMKFMRRNNNL-PMFITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 422
AtBGLU45 : IDETGI-HKMLNMTKRRNNP-PMFITENGIDEGNNSTLP---EALRD-GHRIEFHSHKLQ-FVNHAARK-NGVN : 426

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AtBGLU46 : IDENGF-RKMLNHLKRNTHNI-PMYITENGFGQLQKPET--TVEELLHD-TKRIQYLSGYLD-ATKAAMR-DGAN : 425
AtBGLU47 : -BEVGM-EEMLMWATERKNI-TLYVTENGFG-----EN--NTGVLLND-YQVRKFMSNYLD-ATKRAMR-KCAD : 409
Os9bglu33 : CHSWSL-GKVLNHLKLEYGNP-PVMIHENG-----SDSPDIFGKINYDDFRSAFLQGYLE-ATYLSVR-NGSN : 409
Os9bglu32 : LHEWAL-GKMLHHLKLYGNP-PVMIHENG-----ADSPETPGKIDYDDFRSDFLQSYLE-VIHLSTR-NGSN : 414
Os9bglu31 : STEWAL-KKMLNHLQEKYGNP-IVMIHENG-----AGQPDPSGGNTYDDFRSQYLQDYIE-ATLQSTR-NGSN : 422
Os1bglu2 : NDEKGI-QLALEYLRSEWGDF-PFYIENGK-----GSTNDSLDDPDRVDYIKGYIG-GWLDATR-NGVD : 409
Os1bglu3 : GDEHGI-QLMLQHLKESWGDL-PIYVQENGKLDLLPVFSGKASSNDSLDDTDRVDYIKGYIE-GVLNATR-NGVN : 420
Os1bglu5 : PDEQGI-RLMVQYLQETWGNL-PIYIILENGY-----GSSNDTVHDNDRVDYLYKSYIG-SILTATR-NGAN : 406
Os5bglu22 : RDEKGI-QCMLEMLRDTWQGI-PVYIQENG-----GHFGKDDDSLDDTDRVDYLYSSYMG-STLAATR-NGAN : 413
Os5bglu23 : SDEKGI-QCMLEMLKDTWEGI-PVYIQENG-----GQFDKED-SLNDTERVEYLSSYMG-GTLAATR-NGAN : 410
Os5bglu20 : VDEQGI-ENALEMIRENNGNL-TIYIQENG-----GAPDGTLDVERINYLYKYIA-ATLKATR-NGAN : 414
Os5bglu21 : VDERGI-EHALKYIREKYGNL-PIYIQENG-----ASGSGSSSETLDVERINYLYKYIA-ATLKATR-NGAN : 417
Os5bglu19 : LDERGI-ELALEMLQEKYGNL-LFYIQENG-----GS-NATLDVGRIDCLTQYIA-ATLSTR-NGAN : 418
AtBGLU1 : -----ILEYIKQSYGNP-PVYIILENGK-----TMNQDELQOKDTPRIEYLDAYIG-AWLKAVR-NGSD : 386
AtBGLU3 : VAEWAM-ESVLEMYIKQSYGNP-PIYIILENGT-----PMKQDLQLOKQDTPRIEYLHAYIA-AWLKSTR-NGSD : 410
AtBGLU4 : NTEWAM-EVVLLEYIKQSYGNP-PVYIILESAKWQOIGTPMKQDSQLKQKDIPRIEYLHAYIG-GWLKSTR-NGSD : 413
AtBGLU5 : ----- : -
AtBGLU6 : VAEWAL-EAVI----- : 356
AtBGLU7 : AVEWGI-EGIIQHIKQSYNNP-PIYIILENGK-----PMKHGSTLQ--DTPRAEFIQAYIG-AVHNAIT-NGSD : 406
AtBGLU8 : AVEWGI-EGVIQHIKHRNNP-PIYIILENGS-----PMKHDSMLQ--DTPRVEYIYQAYIG-AVLNAIK-NGSD : 401
AtBGLU9 : ATEWGI-EGILEYIKQSYNNP-PVYIILENGM-----PMVRDSTLQ--DTQRIEYIYQAYID-AVLNAIK-NGSD : 410
AtBGLU10 : ATEWGI-EGILEYIKQSYNNP-PIYIILENGM-----PMGRDSTLQ--DTQRIEYIYQAYIG-AVLNAIK-NGSD : 412
AtBGLU11 : NTEWSL-QQIILLYVKETWGNP-PVYIILENGQ-----MTPHSSSLV--DITRVKYLSSYIK-AWLHSTRKGS : 411
Os9bglu39 : IDEMGE-RTIITRYANDIRM-PVEPIENG-----GVIESWDGVNPIE-DTYRIDYHRAHID-AMKAAMFEDCAE : 398
Os11bglu36 : VVEDGI-FRIILIQENERYKRLNIPFVITENG-----SDET----DLIRKPYILEHLATYAAT--MGVRV : 363

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Os10bglu34 : VRGYFANSLLDNWEWAAGY-TSRFGLYVVDYK--NRKRYPKNSVQWFKNLLAS : 476
Os3bglu6 : VRGYFANSLLDNWEWAAGY-SSRFGLYFVDYKD-NLKRYPKNSVQWFKALLKT : 477
AtBGLU40 : VRGYFVNSLLDNWEWAAGY-SSRFGLYFVDYRD-NLKRYPKNSVHWFSEFNS : 477
Os6bglu25 : VHGYPVNSLLDNWEWNSGY-TVRFGLYVVDYKN-NLTRIPKASVQWFSQVLAQ : 477
AtBGLU41 : VRGYFVNSLLDNWEWNSGY-TVRFGLYVVDYKN-NLTRIPKASARWFEQTILSG : 478
Os1bglu4 : VRGYFANSLFDNFEWAMGY-TKRFGIVVVDYKN-GLSRHPKASARWFSRFLKG : 462
AtBGLU42 : VRGYFANSLDNFEWAQGY-TKRFGLVVVDYKN-GLTRHPKSSAYWFMKFLKG : 465
Os1bglu1 : CIGYFANSLLDNFEWKLGY-TSRFGLYVVDYK--TLRYPKMSAYWFRDLVSS : 466
Os7bglu26 : VTGYFANSLLDNFEWRLGY-TSRFGIVVVDYK--TLKRYPKDSAFWEKNMLSS : 467
AtBGLU43 : LTGYFANSLLDNFEWLSGY-TSRFGIVVVDYK--DLKRYPKMSALWEKQLLKR : 469
AtBGLU44 : VVGYPANSLLDNFEWLSGY-TSRFGIVVVDYK--TLKRYPKMSAQWEKQLLKR : 471
Os3bglu8 : VVAYFANSLLDNFEWLSGY-TSKFGIVVVDFT--TLKRYPKDSANWEKNMLQA : 467
Os3bglu7 : VAGYFANSLLDNFEWLSGY-TSKFGIVVVDEN--TLRHPKASAYWERDMLKH : 467
Os12bglu38 : VTGYFANSLLDNFEWRLGF-TSKFGIVVVDYK--TLRYPKMSSTRWERKMKIS : 465
Os11bglu37 : VKGYFTWTFMDCFEWDGTY-LDRFGLIYVDRKT--LTRYRKDSYWIIEFLRR : 465
Os11bglu35 : VKGYFTWTFMDCFEWDGTY-LDRFGLIYVDRKT--LTRYRKDSYWIIEFLK- : 468
Os9bglu30 : VKGYFTWTFMDCFEWDGTY-LDRFGLIYVDRKT--LTRYRKDSYWIIEFLKR : 471
Os9bglu29 : VKGYFTWTFMDCFEWDGTY-LDRFGLIYVDRKT--LTRYRKDSYWIIEFLKR : 474
Os8bglu28 : VKGYFTWTFMDCFEWDGTY-LDRFGLIYVDRKT--LTRYRKDSYWIIEFLKR : 472
Os8bglu27 : VKGYFTWTFMDCFEWDGTY-TGRFGLIYVDRKT--LTRYRKDSYWIIEFLKR : 474
Os4bglu10 : VKGYFANSLLDNFEWSEGY-TVRFGLIYVVDYD--GMKRYPKNSARWEKKFLRK : 475
Os4bglu11 : VKGYFANSLLDNFEWAEGY-TVRFGLIYVVDYD--GMKRYPKNSARWEKKFLQK : 473
Os4bglu9 : VKGYFANSLLDNFEWADGY-TLRFGLIYVVDYD--GMKRYPKNSAHWEKKFLRE : 474
Os4bglu13 : VKGYFANSLLDNFEWNSGY-TVRFGLIYVVDYD--GAKRYPKNSAHWEKKFLQK : 474
Os4bglu12 : VKGYFANSLLDNFEWNSGY-TVRFGLIYVVDYD--GAKRYPKNSAHWEKKFLK : 474
Os6bglu24 : VRGYFANSLFDNFEWMDGY-SVRFGLIYVVDYK--GLKRYPKNSQWLQNFHLN : 473
AtBGLU17 : VRGYFANSLMDNFEWEGY-KYRYGLVYVDFD--GLKRYPKNSALWYHFLSN : 474
AtBGLU12 : VKGFFANSLLDNFEWATGY-AVRFGLYVVDYD--GRKRYPKNSAKWEKKLLNE : 471
AtBGLU13 : VKGFFANSLLDNFEWATGY-SVRFGLIYVVDYD--GRKRYPKNSAKWEKKLLSE : 471
AtBGLU14 : VKGFFANSLLDNFEWASGY-TVRFGLIYVVDYD--RRKRYPKNSAHWEKKLLNE : 454
AtBGLU15 : VKGFFANSLMDNFEWAMGY-TVRFGLIYVVDYD--GCKRYPKNSAEWERKLLNE : 470
AtBGLU16 : VKGYFANSLMDNFEWSEGY-TVRFGLIYVVDYD--GRKRYPKNSAKWEKKLLK : 421
AtBGLU18 : VTGYFVNSLMDNFEWQDGY-KARFGLYVVDYD--NLTRHKKVSGKWSSEFLK : 477
AtBGLU19 : VTSYFVNSLMDNFEWQDGY-TARFGLYVVDYD--NLTRHKKVSGKWSSEFLK : 479
AtBGLU20 : VTGYFVNSLMDNFEWQDGY-KARFGLYVVDYD--NLTRHKKVSGKWSSEFLH : 480
AtBGLU21 : VTGYFVNSLMDNFEWQDGY-KNRFGLYVVDYD--NLTRYEKESAKYKDFLAQ : 472
AtBGLU22 : VTGYFVNSLMDNFEWQDGY-KNRFGLYVVDYD--NLTRYEKESAKYKDFLGQ : 474
AtBGLU23 : VTGYFVNSLMDNFEWQDGY-KNRFGLYVVDYD--NLTRYEKESAKYKDFLSQ : 475
AtBGLU24 : VTGYFVNSLMDNFEWQDGY-KNRFGLYVVDYD--NLTRYEKESAKYKDFLSE : 480
AtBGLU25 : VKGYFVNSLMDGLEWEDGY-KTRSGLYVVDYD--NMGRHEKQSAKWLSKLEK : 476
AtBGLU26 : VEGYFVNSLMDNFEWNSGY-GVRYGLYVVDYD--GLRYPKMSALWLEKFLRF : 478
AtBGLU27 : VEGYFANSLDNCEWNAAGY-GVRYGLYVVDYD--GLRYPKMSAMWLEKFLKR : 475
AtBGLU28 : VRGYFVNSLMDNFEWEGY-STRFGLYVVDYD--DLTRIPKDSVNWEKQFLDV : 475
AtBGLU29 : ----- : -
AtBGLU30 : VRGYFANSLMDNFEWEGY-TARFGLYVVDYD--GLKRYPKDSVWWEKFLK : 476
AtBGLU31 : VKGYFTWNSLMDNFEWEGY-AVRFGLYVVDYD--GLRHKAKNSAMWFKHFLER : 477
AtBGLU32 : VKGYFTWNSLMDNFEWEGY-AVRFGLYVVDYD--GLRHKAKNSAMWFKHFLOR : 477
AtBGLU33 : LKGYFVNSLMDNFEWQDGY-KVRFGLYVVDYD--NMGRYKRSWKWLEKFLDS : 477
AtBGLU34 : VAGYFANSLMDNFEWNGY-TLRFGLIYVVDYD--PADRKEKASGKWSKFLAK : 464
AtBGLU35 : VAGYFANSLMDNFEWNGY-TLRFGLIYVVDYD--PADRKEKASGKWSKFLAK : 464
AtBGLU36 : VAGYFANSLMDNFEWNGY-TLRFGLIYVVDYD--PADRKEKASGKWSRFLAK : 458
AtBGLU37 : ----- : -
AtBGLU38 : VKGYFANSLGDNFEWFCNGY-TVRFGLIYVVDYD--DLKASGKWSKFLINV : 474
AtBGLU39 : PS-FEA----- : 397

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Os4bglu18 : VRGYFANSVVDNFEWLFGY-TLRFGLYYIDYRT--QESPKLSSALWYKEFLQN : 473
Os4bglu14 : VRGYFVNSLLDFEWNFGY-TLRFGLYHVHYKT--LKTPKLSVDWYRKFLTG : 473
Os4bglu16 : VCGYFANSIVDNFEWVYGY-TVKFGLYQVDFDT--QEIPRMSAKWYRDFLTS : 472
AtBGLU45 : VRGYFVNSLLDFEWLFGY-KVRFGLFHVDLTT--LKSPKQSSASWYKNYIEE : 476
AtBGLU46 : VRGYFANSLLDFEWLYGY-KVRFGLFHVDFTT--LKTPKQSSATWYKNFIEQ : 475
AtBGLU47 : VRGYFANSLLDFEWISGY-TIRFGMYHVDFST--QETPRLSSASWYKNFIFQ : 459
Os9bglu33 : TRGYFVNSMFDMEFLYGY-RLRFGLCGVDTAAARTYLKNSARWYSGFLRG : 461
Os9bglu32 : TRGYFVNSLLDGFEFLSGY-GNRFGLCGVDTAPARTRYVRSARWYSDFLNG : 466
Os9bglu31 : VCGYFVNSFLDVFEYLFGY-RLRFGLYGVDFASPERTRYQRHSARWYAGFLRG : 474
Os1bglu2 : VRGYFVNSFVDVFELLEGY-QSRFGLYRVDFDDGAR-RRAAAASEALRSLVLG : 460
Os1bglu3 : ARGYFANFFVDMFELLSGY-QTRYGLYRVDFDDAALPRAKRSARWYRDFLKS : 472
Os1bglu5 : VRGYFVNSFVDVFEYLTGY-GQSYGLYRVDFADESRPQARLSARWYSGFLKN : 458
Os5bglu22 : VRGYFVNSFLDVFELLAGY-HSPFGLHYVDFDPNLPRQPKLSAHWYSKFLRG : 465
Os5bglu23 : VRGYFVNSFLDVFELFAGY-HSPFGLHHVDFDPSLPRQPKLSAQWYSKFLRS : 462
Os5bglu20 : VRGYSMNSFIDIYEIFGYNSWHYGLVAVDFGSTERRRQPRRSASWYSDFLKN : 467
Os5bglu21 : VRGYSMNSFVDIYELFGGYSTWHFGLVAVDFDSEKRRQPRRSASWYSEFLKN : 470
Os5bglu19 : VRGYCVNSFMDQYEMFGDY-KAHFGIVAVDFGSEELTQPRRSARWYSDFLKN : 470
AtBGLU1 : TRGYFVNSFMDIYELLNGY-KSSFGLYSVNFSDPHRKSPKLSAHWYSGFLKG : 438
AtBGLU3 : TRGYFINSFMDIYELVKGY-EFSFGLYSVNFSDPHRTSPKLSAHWYSAFLKG : 462
AtBGLU4 : TRGYFVNSFMDIYELLGGY-EVGFGLYTVNFSDPHRKSPKLSAYWYSDFLKG : 465
AtBGLU5 : ----- : -
AtBGLU6 : ----- : -
AtBGLU7 : TRGYFVNSMIDIYELIGRY-MTSYGMYVNFSDPGRKSPKLSASWYTGFLNG : 458
AtBGLU8 : TRGYFVNSLIDLFEVQVGY-KSSFGMYVNFSDPGRKSPKLSASWYTGFLNG : 453
AtBGLU9 : TRGYFVNSMVDVEILSGY-TTSEGMYHVNFSDPGRKTPKLSASWYTGFLNG : 462
AtBGLU10 : TRGYFVNSMIDIYELLSGY-TTSEGMYVNFSDPGRKTPKLSASWYTGFLNG : 464
AtBGLU11 : VRGYFQNSLMDVFELFGGY-ERSEGLLYVDFDKDPSLKSPKLSAHWYSSEFLKG : 463
Osbglu39 : VICYLGNGLIDILSSQGDM-RKRYGVVYVNRENHDLKVPKKSYAWLKQVIHT : 450
Os11bglu36 : LGYLE-WTSDNWEWADGY-GPKFGLVAVDRANN-LAKPRPSYFLSRVVTT : 413

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